MARIPOSA

NEW MEXICO

Guidelines for Sustainability

Estate and Highland Homes

A High Desert Community

TABLE OF CONTENTS

SITE PLANNING

LANDSCAPE

ARCHITECTURE

SUSTAINABLE LIVING

RESIDENTIAL STRUCTURED WIRING

PROCEDURES FOR PLAN REVIEW

CONSTRUCTION REGULATIONS

MARIPOSA

NEW MEXICO

A High Desert Community

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 the surrounding region. However, it takes more than good architecture to make a community work and thrive. It takes good governance and foresight about how people live, work, 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.

Overlooking Rio Rancho, and the neighboring communities of 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 Jemez and Rio Grande Valleys, Mount Taylor, Jemez, Sangre de Cristo and Sandia Mountains are available from the community. The wonder of these unspoiled vistas is matched by the dramatic landscape within the community. Soft, rolling grasslands dotted with piñon and juniper contrast with a spectacular escarpment that cuts through the center of the community, affording awe-inspiring views of the remarkable high desert landscape below and beyond.

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 high 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 will be able to enjoy the natural wonders of Mariposa for generations.

As stewards of this special land we are committed to the vision of a community conceived, designed and built to preserve nature's intricate balance. Careful stewardship will guide the planning, development and continued existence of Mariposa. Stewardship begins with the owner of the land, High Desert Investment Corporation, and our vision and commitment to making the best of the land – environmentally, socially and economically.

High Desert, as the Master Developer, and each individual builder/developer and owner will become a "partner" and important representative of Mariposa in our quest to achieve the vision for our community. These Guidelines for Sustainability will help ensure that all builders/developers and owners will be responsible for helping achieve the vision.

Our goal – an integrated and sustainable community that honors its New Mexican roots and natural habitats while providing a place that will endure.

We encourage you to fully read these guidelines, ask questions, adhere to the requirements and thoughtfully consider the recommendations, as you also become a steward of this special place.

Welcome to Mariposa New Mexico.

Douglas H. Collister
President

High Desert Investment Corporation 3791 SOUTHERN BLVD. SE, SUITE 202 RIO RANCHO, NM 87124
telephone 505.823.9360 *fax* 505.823.9611 www.mariposa-NM.com

INTRODUCTION TO MARIPOSA

A resource as precious as the land which comprises Mariposa demands 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. The 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 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 sitting 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 prescription for designing and building a community which will truly be sustainable are set forth in these Guidelines. The criteria are provided as a starting point for the builder, homeowner and 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.

ROLE OF THE FOUNDER

The Founder, pursuant to the Declaration of Covenants, Conditions, and Restrictions, will review all applications for new construction at Mariposa and to administer these Guidelines for Sustainability for Estate and Highlands Homes ("Guidelines"). Each proposed development site plan, building design and landscape design will be evaluated for appropriateness and compliance with the objectives of these Guidelines. The Founder will review and approve all plans and applications for development and new construction at Mariposa by Owners or their representatives in accordance with these Guidelines.

After construction has been completed, the Founder, in accordance with these Guidelines, will administer any proposed modifications or additions to a home.

HOW TO USE THESE GUIDELINES

This document is structured for easy review and reference. It begins by introducing the design objectives for Mariposa and describes the approach to site planning, architecture, landscaping and sustainable living. It defines the steps for review and approval of projects and homes within Mariposa and presents the procedures to be followed during construction. All properties in Mariposa are also governed by the –Community Charter for Mariposa Residential Properties (the "Charter), the Bylaws of the Mariposa Community Association Inc. and the Articles of Incorporation of the Mariposa Community Association, Inc. (the "Articles of Incorporation"). The owners, builders and developers are responsible for any

restrictions and requirements listed in any recorded Supplemental Declarations or Guidelines for their property.

MARIPOSA GUIDELINES FOR SUSTAINABILITY – ESTATE AND HIGHLAND HOMES

These Guidelines are separated into various sections for convenience. However, they should be read completely to fully comprehend the intent. The Guidelines are divided into the following sections:

Site Planning

Landscape

Architecture

Sustainable Living

Residential Wiring

Procedures for Plan Review

Construction Regulations

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. Issues of positioning buildings on the land to minimize their impact on the terrain and natural systems are set forth in simple and achievable guidelines.

SITE PLANNING PHILOSOPHY

Mariposa consists predominantly of high desert pinon-juniper, and interspersed grassland and sage-brush habitat. Water is scarce, with an annual precipitation of approximately 8", and under-story vegetation is limited. Development in this environment must be carefully sited, with considerations of existing conditions, scale, architectural detail and orientation taking precedence in the planning and design process.

The Site Planning section of the guidelines, require careful consideration of the integration of buildings with their surroundings so as to minimize intrusion and impact on the environment. This section will introduce a number of concepts to enhance energy efficiency, use storm-water runoff beneficially, minimize grading and site damage, preservation of the night sky, preservation of open space, preservation of cultural resources and sites and respect for the environment.

CULTURAL SITES

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.

All of Mariposa has been surveyed for cultural resources. Field scientists, walking transects across the entire site, conducted a full pedestrian survey of the area. Over the course of the Mariposa Survey, numerous archaeological sites 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 Mariposa. Agreements have been reached with the New Mexico State Historic Preservation Office and Army Corp of Engineers to allow development of Mariposa with the appropriate strategies to mitigate unavoidable impacts to cultural resources within the project area.

The land plan and platting for all Estate and Highland lots have avoided or fully investigated known cultural sites, thus no additional cultural investigation should be necessary for any construction activity on Estate or Highland lots. However, if any cultural sites are found during construction you are required to immediately inform the Founder and discontinue construction in that specific area.

FUNDAMENTAL CONCEPT OF LIMITING SITE DISTURBANCE

In order to minimize site disturbance, strict limits have been placed upon the portions of a lot that can be disturbed by construction. The area where construction can occur is defined as the Building Envelope and within the Building Envelope may be a Private Area. An area around the perimeter of the Building Envelope, known as the Transition Area, is made available for disturbance only during the construction period and is intended to provide for the circulation of construction vehicles, access by workers, and the storage of construction materials. This Transition Area must be fenced prior to the start of construction. Outside of the Building Envelope and Transition Area is the Natural Area of the lot or site. This area is to remain free from any and all construction disturbance.

SITE DEFINITIONS AND REQUIREMENTS

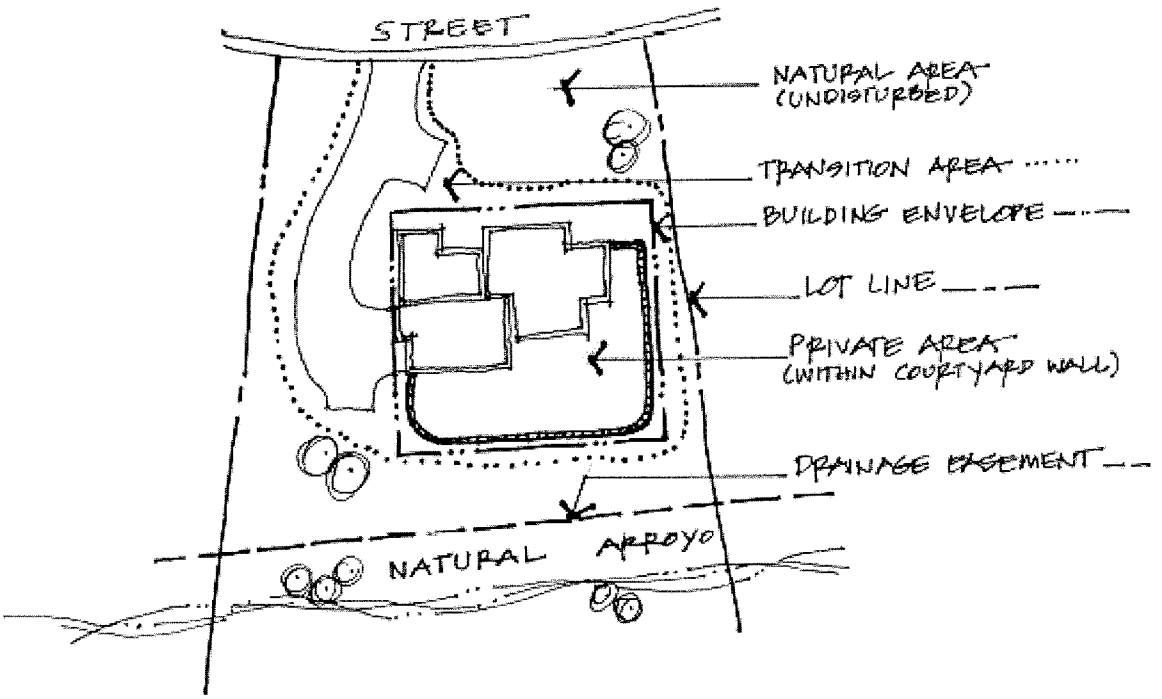
Building Envelope

Estate and Highland lots at Mariposa have been configured to capitalize on the best features of the land. The Lots are large so that each home can be located in a manner that allows the enjoyment of the scenic beauty, extraordinary views and natural environment. To ensure that these qualities are protected, each estate and highland lot has a designated area, within which building can occur, called the "Building Envelope." This boundary delineates the maximum area in which any proposed building or improvement and non-native landscape must be sited. Estate lots generally have a 12,000 square foot Building Envelope and average approximately one acre in size. Highland lots generally have a 9,000 square foot Building Envelope and average between ½ acre and ¾ acre in size.

Requirements and Recommendations:

1. **The Building Envelope is predetermined for each Lot and is identified on the Plat, which was approved by the City of Rio Rancho (City) and recorded in the office of the County Clerk.**
2. **No part of the residence (including garage, porch, attached or detached structure), or any wall (excluding natural stone retaining walls), fence, or any other structure, or non-native landscaping, 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, except as allowed for in these Guidelines.**
3. **The Building Envelope is configured to respond to topography, to maintain natural drainage patterns, to avoid impact on significant vegetation and to create and preserve view opportunities.**
4. **Plans should give early consideration to planned future expansions and uses, such as guesthouses, shade structures, swimming pools, etc., so they may be accommodated within the Building Envelope.**
5. **The following improvements are allowed outside a Building Envelope: driveway from the street (and associated culverts, guest parking, turning area, etc.), sidewalk, or path from street, underground utility connections (water, sanitary sewer, electric, gas telephone, cable TV, etc.), mailbox, landscape irrigation, native landscape material, natural material retaining walls and water harvesting/drainage improvements.**

Site Map



Natural Area

That portion of the Lot which lies outside of the Private Area (as defined below), building improvements, including backyards and enclosed patios is the Natural Area. Generally the Natural Area is outside the Building Envelope, but it need not be if a house and Private Areas do not consume all of the Building Envelope. The Natural Area must remain undisturbed and if any disturbance occurs at any time, the area must be restored to a natural condition immediately, in accordance with the Landscape Section of the Guidelines.

Requirements and Recommendations:

1. **The Natural Area must remain in a natural condition, in accordance with these Guidelines.**
2. **Sidewalks and a driveway to the street may encroach into or through the Natural Area, with Founder approval. Culvert crossings or retaining walls, made from natural materials, may be necessary to reduce the amount of disturbance to the lot.**
3. **The Natural Area may be enhanced with native landscaping, from the approved list of plants and may be irrigated in accordance with the Landscape Section of the Guidelines with Founder approval.**
4. **Water harvesting and storm water drainage improvements, utility lines and facilities may be placed in the Natural Area with Founder approval.**
5. **Grading may take place in the Natural Area only with Founder approval. However, any such grading should be minimized and the area restored to harmonize with the existing topography and re-vegetated.**
6. **Retaining wall improvements made of natural material, such as stone or boulders, may be located in the Natural Area if approved by the Founder. Retaining improvements made of man made materials may not be located in the Natural Area, except that concrete, or CMU block may be used for retaining walls if faced with natural or cultured stone.**

Transition Area

During construction this is the area between the construction fence and the wall of a residence or planned improvement.

Requirements and Recommendations:

1. **The distance between the construction fence and the planned improvement can be no greater than ten feet but may encroach into the Natural Area. The Transition Area cannot encroach into platted or recorded drainage easements.**
2. **The Transition Area must be restored to a natural condition upon completion of construction in accordance with the landscape concept in the Landscape Section of the Guidelines.**
3. **The owner is encouraged to use this area to redirect, contain, manage and/or convey storm water in and around the home and courtyard areas.**

Private Area

Those parts of the Building Envelope, which are contained within walls or structures and thus, for the most part, are not visible from adjacent properties, streets, or public spaces.

Drainage Easements/Arroyos

A fundamental intent of the Mariposa plan is combining development with the preservation and enhancement of the natural arroyos connecting the community to the Mariposa Preserve and the region. All of the major arroyos in the Estate and Highlands home areas are maintained in their natural landforms, and the vegetation is preserved and enhanced. The engineering firm employed by the Founder, in conjunction with the Southern Sandoval County Arroyo Flood Control Authority ("SSCAFCA"), has performed studies on each arroyo system, which resulted in easements being placed over each of the arroyo systems. The easements are granted jointly to SSCAFCA and the Association. The boundary lines of the easements are referred to as the Lateral Erosion Envelope, or LEE Line. The easement over each of the arroyo systems provides the Association the obligation and right to perform minor erosion and landscape maintenance within the easement. SSCAFCA has the obligation and right to perform more serious erosion control and other maintenance issues. Thus, the Property Owner is relieved from the necessity of maintaining this area. These Arroyo Easements also 5preserve their open space and natural scenic qualities.

Requirements and Recommendations:

1. **Any improvements, driveway crossings, culverts, bridges, utility crossings, drainage improvements, etc., proposed to be placed in the arroyo easements must have written consent from SSCAFCA, the City and approval of the Founder.**
2. **Water harvesting facilities may be placed in the easements only after obtaining written consent from SSCAFCA, the City and approval of the Founder.**
3. **Arroyo easements may be located on the private property of an individual lot owner, but are not a trail system, or open to the public, including any resident of Mariposa, unless a specific trail easement is recorded allowing public access.**

Floor Area Ratio

The Floor Area Ratio is the ratio of the heated floor area (including multiple stories) of the structures to the Lot. In order to insure houses are in appropriate proportion to their Lot, the following floor area ratios shall apply.

Lot Type	Floor Maximum Area Ratio
Estate	.25
Highland	.50

Building Envelope Changes

Building Envelopes may be reconfigured and increased in size if approved by the Founder and after the change is officially approved through the process defined by the City, including a replat of the lot.

Requirements and Recommendations:

1. **Before the Founder will consider a proposal to reconfigure a Building Envelope the Lot Owner must obtain written consent from all affected lot owners as determined by the Founder and must furnish in writing such Lot Owner Approvals to the Founder.**
2. **The Founder carefully reviews requests to reconfigure Building Envelopes because of the possibility that reconfiguration could negatively impact views from nearby lots and, or have negative drainage, or other impacts and thereby be deemed unacceptable to the Founder. Approval of a Building Envelope reconfiguration by affected Lot Owners does not guarantee Founder approval. Any such approval is at the absolute discretion of Founder.**
3. **If an Owner is combining two contiguous Lots and wishes to reconfigure and increase the size of a Building Envelope, the area of the new Building Envelope, of the combined lot may not be larger than 18,000 square Feet. In this circumstance, Founder will consider a request to reconfigure a Building Envelope only after all affected Lot Owners have given written approval of such reconfiguration to Founder.**
4. **The Founder will not consider an increase in Building Envelope sizes unless the lots meet minimum size requirements: (1) Estate lots must be at least 1.75 acres in size and the maximum Building Envelope size would be 15,000 square feet; (2) Highlands lots must be at least 1 acre in size and the maximum Building Envelope size would be 12,000 square feet.**
5. **In the case where two Lot Owners acquire an intervening Lot, divide the intervening lot and combine the divided portions of the lot into theirs, through the process described in these Guidelines, and request a Building Envelope reconfiguration, the Founder will not approve an increase in size beyond 15,000 square feet for either of the two Building Envelopes.**
6. **A request to increase (a variance from the size limitation) the area of a Building Envelope for either Estate lots or Highland lots will only be considered by the Founder after written justification for any such request is provided by the owner or the owners agent based on the variance procedures outlined in the guidelines. A copy of the variance procedure is available from the Founder. An increase in the size and configuration of a Building Envelope will require the written consent of all affected lot owners as determined by the Founder and a re-plat of the lot through the City of Rio Rancho process.**
7. **An increase in the size and/or reconfiguration of a Building Envelope may only be granted by the Founder, in it's sole and absolute discretion.**
8. **Any replat of a Building Envelope or Lot requires the signature of the Founder on the proposed replat, before the replat can be presented to the City for processing.**

9. Approval of any Building Envelope reconfiguration by the Founder does not imply or guarantee City approval.
10. **Once a Building Envelope reconfiguration has been approved by affected Lot Owners, the Founder, the City and a replat recorded, any additional reconfiguration, including any reconfiguration back to the original configuration, must again be approved in writing by the affected Lot Owners, the Founder, the City and a replat of the Building Envelope through the City process.**
11. **In the case where contiguous Lots are combined, a reconfigured Building Envelope may span the former lot line if all the approvals noted in these Guidelines are received.**

BUILDING SITING AND ORIENTATION

Lot Pattern and Orientation

The challenge of site planning at Mariposa is to balance topography, views and solar orientation. The lot pattern organization should conform to the existing landforms and respect existing drainage ways while maximizing the density on site. The intent is to portray a clear sense of community identity and values through the spatial organization of the lots and the community form. In the master planning process, densities were matched to the topographic condition, with the highest densities on flattest land and the lowest density on the steep slopes or land heavily dissected by arroyos.

Views

Spectacular views to the preserve at Mariposa occur to the north and toward the northeast clockwise to the southeast expansive views of the Jemez, Sangre de Cristo, Ortiz and Sandia Mountains can be seen. The intent is to maximize the public's and individual homeowner's exposure to these views. In addition, views to and from public access corridors should be maintained to give homeowners visual access to these areas as well as providing the open space user a more expansive experience along these corridors.

Building Envelopes are designed, not only to minimize disturbance, preserve historical drainage patterns and preserve significant vegetation, but to also create and preserve view opportunities. Because Building Envelopes are predetermined and defined on a recorded plat, it is suggested that views be directed away from adjacent Building Envelopes and be directed toward open space and arroyo corridors.

Solar Orientation

Orienting homes in the optimum solar orientation for passive heating and cooling can reduce yearly energy bills by up to 30 -40%. This can be achieved through preservation of solar access, proper orientation, and fenestration. Lot patterns with homes oriented in a north/south direction experience solar variation on a seasonal basis. Lot patterns with homes oriented in an east/west direction experience solar variation on a daily basis. The latter requires more mitigating factors to make use of passive cooling and heating.

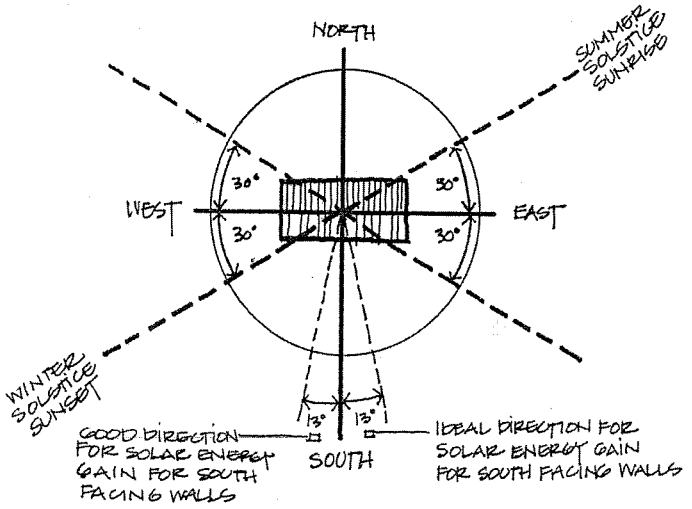
Generally maximum façade length, window area, and living spaces should be located on the south side. Window openings should be minimized and well insulated on the North side. Circulation, support and storage spaces should be located on this side. East and West façade lengths should be minimized to limit the amount of solar gain during summer months. Through the combination of solar orientation solar access, ventilation, and insulation, a typical home can vastly improve indoor

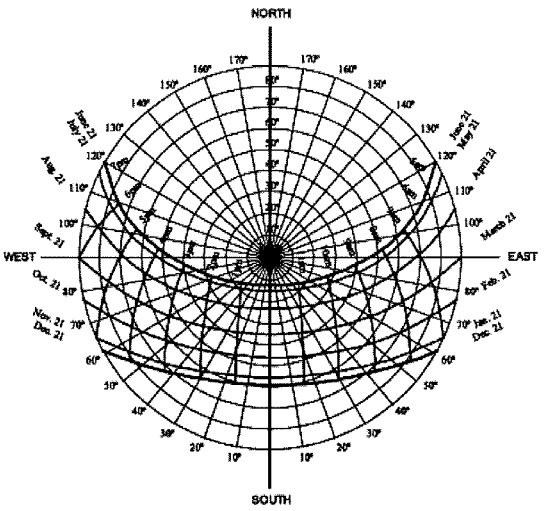
environmental quality while reducing energy expenditures. In the event this is not feasible, various mitigating measure scan be used to limit solar gain.

Solar Exposure

New Mexico receives an average of 76% of available sunshine per year (approximately 300 days), with the highest mean monthly average of 83% occurring in June. Due to the high availability of sunlight and its intensity at an elevation of 5000 ft., managing solar gain is recommended to the greatest extent possible. Appropriate solar orientation and fenestration can account for a 30-40 % reduction in heating and cooling loads in Northern New Mexico.

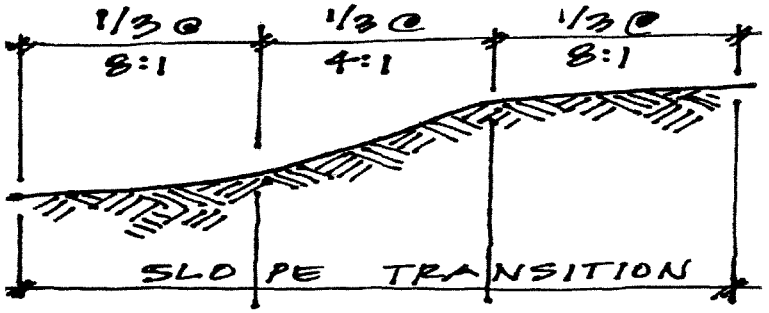
The Albuquerque region receives an average of 76% of available sunshine per year (approximately 300 days), with the highest mean monthly average of 83% occurring in June.





GRADING

Design Objective: To create natural appearing slope transitions between grade changes, integrate buildings and site improvements into the site, minimize the height impact of structures, minimize the negative impacts of grading during and after construction, and encourage the use of landform as a landscape design element. Balancing of "cut" and "fill" are strongly encouraged and import of "fill" material is strongly discouraged and may not be allowed.



Techniques used to balance "cut" and "fill" will be considered by the Founder in the approval process. In the interest of minimizing disturbance to the existing terrain and vegetation it may be appropriate to use natural materials as a retaining structure when slope grades approach, or exceed 4:1. All slope transitions should be re-vegetated with approved materials, or landscaped to appear as natural as possible. Use of stem walls and internal steps within a residence may be required to minimize lot grading and to preserve natural land forms as much as possible. Site grading will need to take drainage issues into consideration and respect natural drainage patterns.

Measures to reduce excessive grading:

1. **Building with internal steps and multiple levels that step with grade.**
2. **Use of building retaining and stem walls on cut slopes.**
3. **Contouring and use of slope transitioning along with landscaping will help to blend, smooth and soften cuts and fills.**

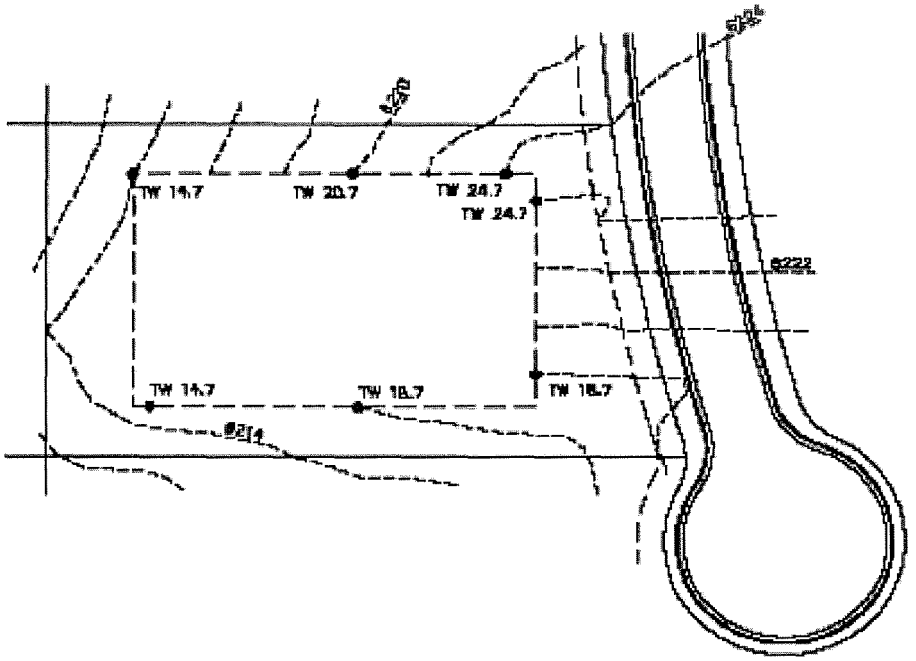
Requirements and Recommendations:

1. **The Founder may require a building site to be cut below natural grade in order to reduce the visual impact of a structure and help ensure that any structure integrates well with the site and community.**
2. **The import of fill material, if approved by the Founder, should be minimized and fill material must be spread and compacted when deposited to avoid the appearance of a dumpsite. Fill on a building site should be balanced, if possible, with cuts from the site.**
3. **The Founder must approve the creation and location of stockpiles. Grading plans must include information about stockpiles including the location, size, erosion control measures and length of time that they will remain. Stockpiles should be stored within the Building Envelope or the driveway area. Stockpiles must conform to all local, state and federal requirements.**
4. **Buildings and Private Areas with internal steps and multiple levels are encouraged to minimize the need for cut and fill.**

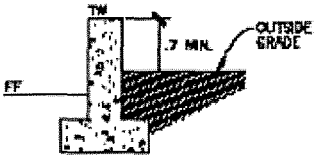
5. No cutting, filling or earthwork disturbance may overlap onto adjacent property.
6. All grading plans must be reviewed and approved prior to any construction by the Founder and the Founder's engineer for compliance within these Guidelines.
7. A temporary construction fence must be installed within the transition area before any disturbance of the site begins.
8. When removing topsoil it should be stored on site and reused when re-vegetating the site.
9. Consideration should be given to mulching any removed trees for use as soil amendment during the landscape/re-vegetation process.
10. Trees must be preserved wherever possible. Plans must include ortho photo map (as provided by Founder) indicating trees that are chosen for removal, trees that have potential to be harmed that will be preserved and a plan of preservation.
11. The Owner's registered New Mexico civil engineer must prepare all Grading Plans and the Grading Plan must be stamped by the engineer and approved by the Founder prior to any construction.
12. After completion of construction the Owner's registered New Mexico civil engineer must certify that the grading was performed in substantial compliance with the Founder approved plan and the Founder must accept such certification.
13. All disturbed areas shall be re-vegetated using the Mariposa seed mix within 30 days of final grading, but no later than completion of the home. The Founder will consider different seed mixes, as it deems appropriate.
14. If satisfactory germination is not achieved the area may need to be re-vegetated.
15. No grading or fill shall occur in the Natural Area without Founder approval.
16. Cut slopes should use the residence and Private Area walls for retaining. Refer to the site wall section for more information on retaining wall requirements.
17. Extensive use of solid masonry, or cast in place footing stem walls may be required by the Founder to minimize lot grading and to preserve natural landforms.
18. Each individual lot owner (or designee) is responsible for any soils analysis/investigation of his or her lot.

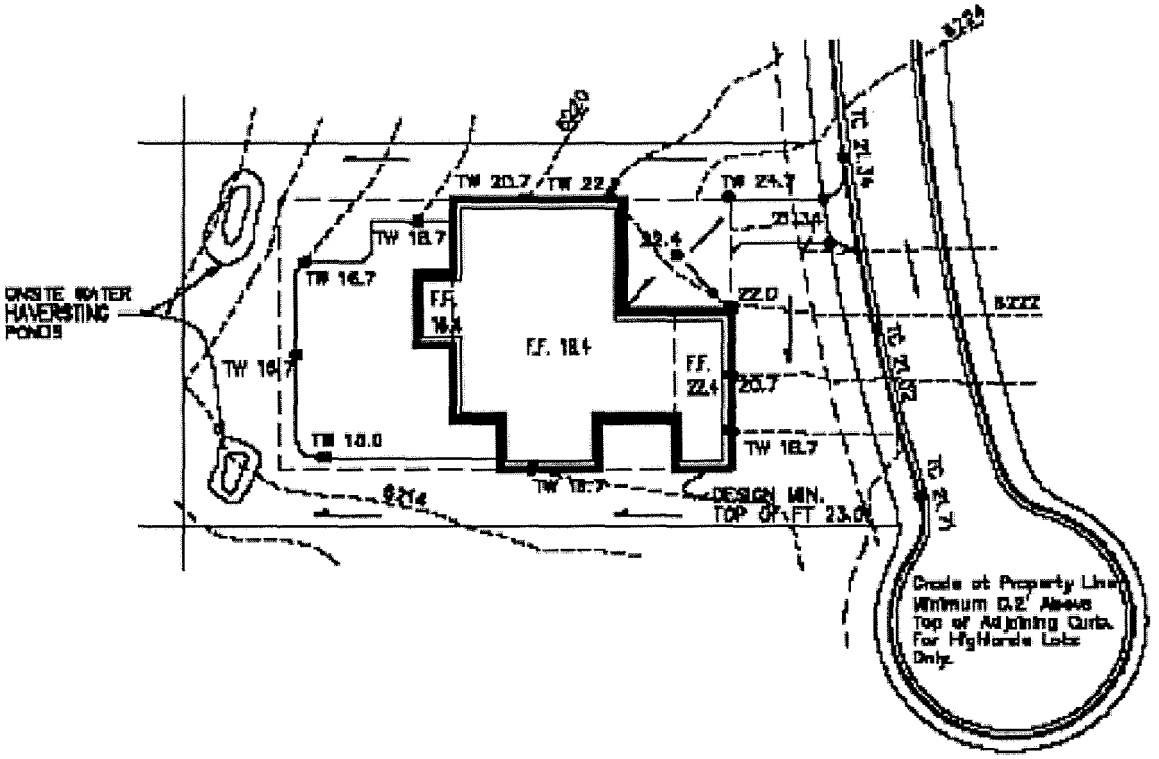
Grading Concepts For Estate & Highland Lots

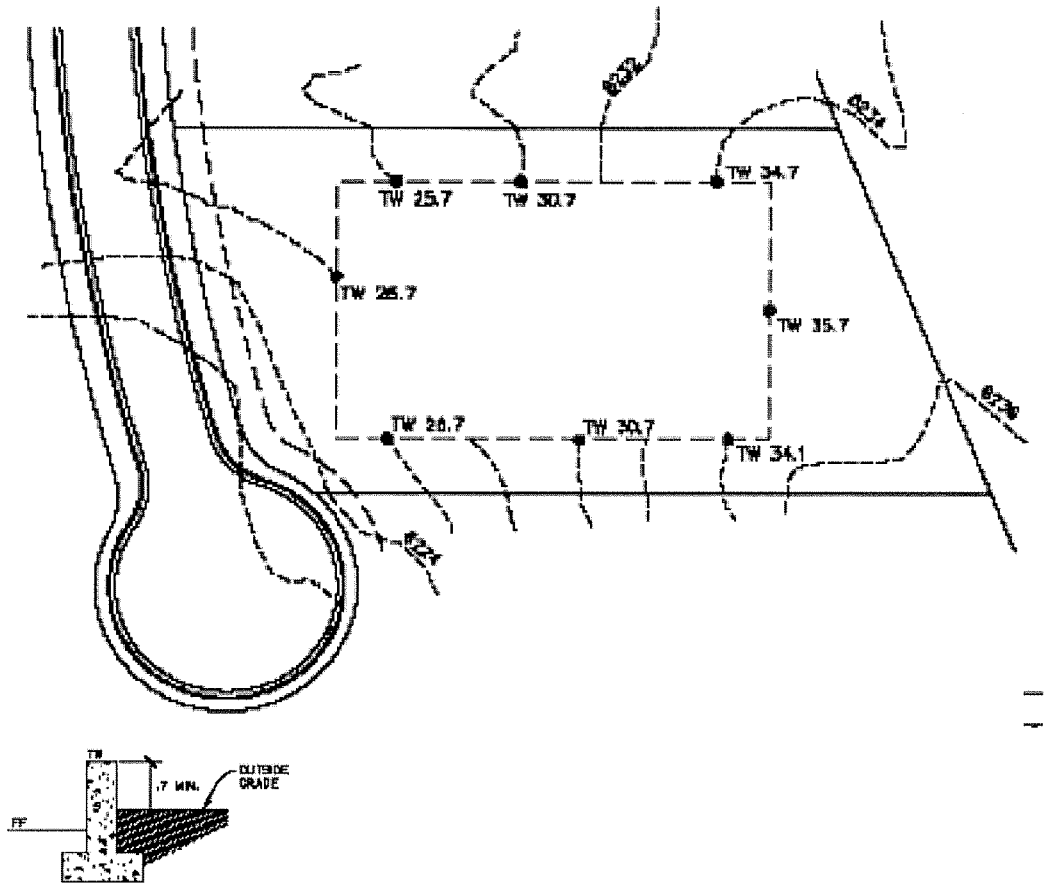
The following design examples are presented to illustrate the basic principals of how to minimize the negative grading impacts for Estate and Highland Home sites. Specific grading examples for downhill conditions and uphill conditions show several of the many possibilities.



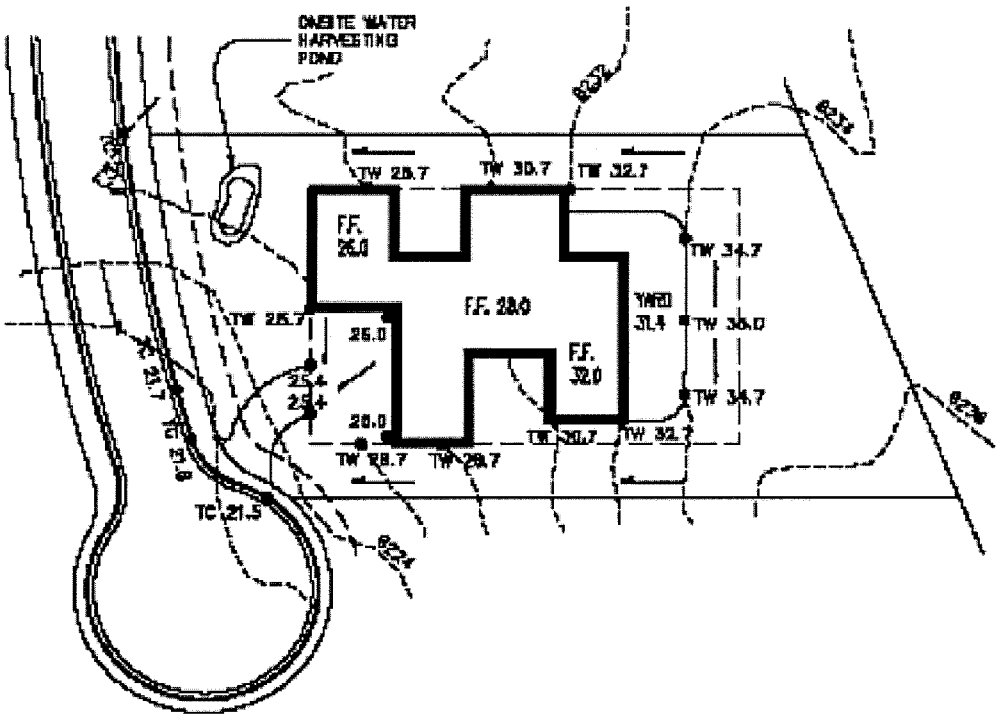
Grading of Uphill Conditions







Grading of Downhill Conditions



DRAINAGE AND SURFACE WATER MANAGEMENT

Drainage

Design Objective: To provide safe, effective and efficient drainage and minimize deviation of the natural flow of run-off on the property. To preserve drainage easements and arroyos so they blend into the community and serve as open space and landscape amenities.

Requirements and Recommendations:

1. **The primary function of the natural arroyos in Mariposa is to safely convey the upland storm water flows through the property. Their function is not to receive free discharge of storm water flows from adjacent developed estate or highlands lots that could cause damage to the natural arroyo system. Lots require management of flows from the developed areas of the Lots through water harvesting or other techniques that prevent negative impacts. Flow into the natural arroyos should approximate that which occurred prior to development of the Lot (Historical Flows). Techniques to assure compliance with these provisions must be defined in drainage plans, prepared and stamped by a registered New Mexico civil engineer, for each lot, and approved by the Founder prior to the start of construction.**
2. **The homeowner may enhance vegetation on the Lot, including the area of any drainage easement, through the addition of plant materials, which are native to the vicinity of the property and on the Mariposa approved plant list, if approved by the Founder. However, the addition of such native plant materials (from the approved Mariposa List) shall not reduce or restrict arroyo flows or redirect arroyo flows to cause damage. In general, most specimens, especially woody varieties, will only be allowed along arroyo banks or in vegetated "islands" in the middle of the arroyo in areas which will not impair arroyo flows or induce bank erosion.**
3. **Arroyos may not receive free discharge of storm water flows from the developed area of lots.**
4. **Flows to the natural arroyos and adjacent lots should approximate that which occurred prior to development of the lot.**
5. **No drainage of surface water, including overflow from ponds or swales, is allowed into the Mariposa Preserve.**
6. **The grading and drainage plan prepared for each lot is required to analyze the site based upon the 100 year 6 hour storm event. Only historic peak runoff amounts will be allowed to leave the site in a non-erosive manner.**
7. **The primary drainage management concepts used to prepare each individual grading and drainage plan must include the reduction of developed runoff to be equal to or less than historical peak flows through the use of water harvesting on each individual site. All drainage improvements should be designed and constructed to minimize disturbance and to appear natural.**
8. **The soils in Mariposa are very erosive and require significant consideration when addressing developed runoff. Erosion protection is essential when capturing and conveying any and all developed runoff.**
9. **Each grading and drainage plan must account for and accept any and all upland flows that may impact the lot and include this in the analysis. Any upland flows intercepted and redirected through the site must not leave the site in a concentrated or erosive manner.**
10. **As indicated and required in the approved Drainage Improvement Plan (DIP); "A City grading permit is required for any grading activity within the City. As part of the house construction or grading permit process (unless otherwise addressed as part of the overall grading and drainage plan for the subdivision), City approval of individual lot grading and drainage plans will be required for each estate and highlands lot where any of the following conditions are met:**
    a. **The proposed building pad elevation is below the adjacent centerline roadway elevation.**

b. The quantity of proposed earthwork for the lot exceeds 500 cubic yards.

c. Development of the lot will disturb more than one acre of land.

d. Development of the lot will modify the public drainage system (as defined by City Code)."

11. Adjoining properties shall be protected from flooding. Do not alter the existing drainage patterns of a site affecting the quantity of water that drains onto adjacent properties unless the changes are part of an overall drainage plan and provisions are made to accommodate altered drainage patterns and the written consent of the owner of the affected property has been obtained and provided to Founder.

12. Set finish floor elevations according to federal and local flood requirements and to conform to grading concepts previously discussed.

13. Always drain water away from buildings.

14. For Highland lots uphill from the street, all down spouts shall discharge to the front of the house and onto the driveway, or piped to the street through the curb.

15. On lots downhill from the street, all roof drainage may be discharged into the rear or side yards as a drainage management technique. No roof drainage or concentrated flows may be discharged into the Natural Area outside the Building Envelope, unless erosion protection and ponding systems are designed and approved by the Founder. Drainage from the rear yard may be drained through openings in the Privacy Wall at no less than four-foot intervals with necessary erosion protection provided at the discharge adjacent to the wall openings. These openings shall be placed at the same outside elevation, when possible, and shall be a minimum .2-foot above the finished grade elevation. For Estate Lots uphill from streets, the same technique may be used in front yard or courtyard areas.

16. On lots downhill from the street, extreme care and attention shall be paid to the grading of driveways and drive pads to insure storm water run-off will not enter the garage or the house. Where concentrated flows leave driveways and drive pads, erosion protection shall be provided to eliminate down stream impacts outside the Building Envelope.

17. For all types of lots no direct roof drainage may be discharged to the Natural Area outside the Building Envelope, unless approved by the Founder with the proper erosion protection and ponding systems, supported by a hydrology study referenced on the grading and drainage plan.

18. The grading and drainage plan must be prepared by a registered New Mexico professional civil engineer and approved by the Founder.

19. All grading and drainage improvements must be constructed in substantial compliance with the grading and drainage plan approved by the Founder.

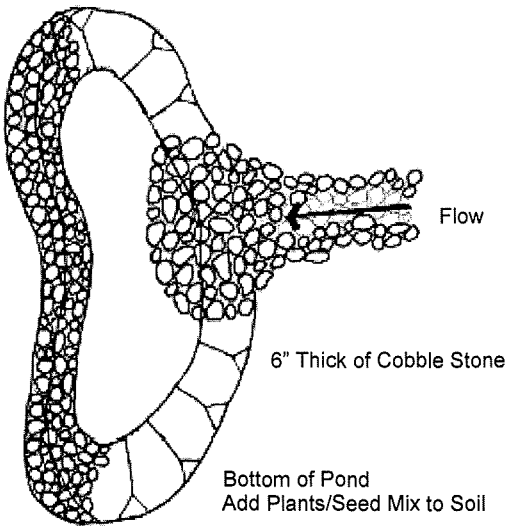
20. All approved drainage improvements must be completed and functioning properly at the time the house is completed. The drainage improvements must be installed at the time of construction of the house, not later, as a part of the landscape plan implementation.

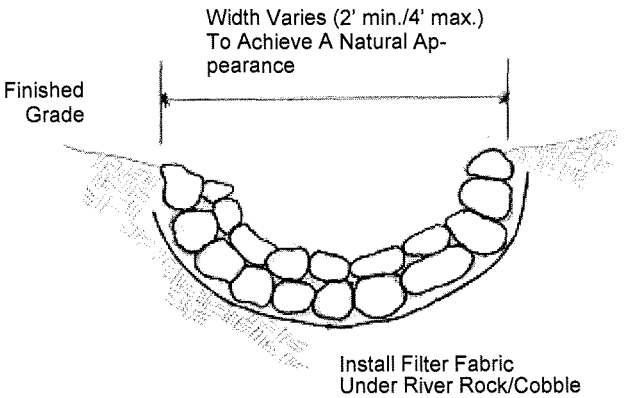
21. The Owner is responsible for foundation design and its relationship to drainage management techniques employed.

22. If water harvesting facilities are to be constructed in arroyo areas, that have easements granted to SSCAFCA, an encroachment license or written approval must be obtained from SSCAFCA, at the expense of Owner, and furnished to the Founder, before such a plan will be considered by the Founder.

23. The Founder will have a registered New Mexico civil engineer review all Grading and Drainage Plans and certifications by the owner's engineer. The Founder and its engineer will make field inspections of grading and drainage during construction, or at the time the certification is received from the owner's engineer.

24. **It is important to note that the construction and implementation of the approved drainage and/or water harvesting improvements be constructed properly. Swales shall have a definable shape (i.e. a "V" or "U" shape to them. It is important that swales be constructed or installed below the adjacent grade so that runoff can be captured conveyed properly, instead of being caught along the edge of the swale, which may undermine the swale rendering it useless. Also the water harvesting ponds should be graded to give a natural appearance versus engineered. In both cases the amount of cobble placed in these features should be in accordance with the approved grading and drainage plan for the lot. Areas in the water harvesting ponds that do not have cobble (erosion protection) should be reseeded or add planting especially to the bottom of the pond so it can truly function as a water harvesting facility. It is important for the certifying engineer ensure that these facilities are properly installed during their site visit for the required certification. Also note that most drainage and or water harvesting improvements require ongoing maintenance. Without proper maintenance the drainage and or water harvesting facilities will not perform as intended. It is the responsibility of each lot owner to inspect and maintain their lot specific drainage and water harvesting facilities on an ongoing basis.**





Surface Water Management

Design Objective: 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.

The purpose of this section is to identify principles, goals strategies and techniques of implementation. The approach to surface water management reflects the many years of experience that the Founder has developed as a pioneer in this field and proven approaches to water harvesting, erosion control and landscape techniques.

The reader is also directed to Sustainable Living, Landscape and Construction Regulations sections of these Guidelines for additional information about surface water management.

General Principles of Sustainable Surface Water Management

Requirements and Recommendations:

1. Capture water as close to where it falls as is practical. The target is to keep water on-site for use. This management principle is achieved by:
    a) Disperse (Spread) and Infiltrate. Spread out and infiltrate water into the ground in places where it will be useful. Storm water that is dispersed rather than collected and concentrated is much less likely to cause erosion damage.
    b) Store and Release. Harvest water runoff from impermeable surfaces such as roofs and pavement. Screen, filter, and store water in ponds, cisterns or other catchment structures and use it for a range of non-potable requirements such as irrigation.
2. Reuse as close to the source as possible and in the best manner. Accomplish this through:
    a) Determining the source of the water—both point and non-point sources.
    b) Determining how the water can be best used. This may be based on water rights, community water strategies, and the water budget.

General Goals of Sustainable Surface Water Management

Requirements and Recommendations:

1. Maximize the useable land on residential lots – select the appropriate water harvesting/management approaches to achieve this.
2. Reduce the impact on natural resources – reduce water uses.
3. Capture the site's potential energy and resources through the collection and reuse of storm water runoff on site through a variety of systems.
4. Reduce energy consumption.
5. Meet new NPDES requirements for water management, as noted in the Construction Regulations Section of these Guidelines.
6. Sodded or seeded swales are installed for low intensity runoff areas.
7. Swales are contoured to hold and infiltrate water for plants - sides are gently sloped and bermed, where appropriate.
8. Swales are designed to have an overflow and spillway at a point along the depression.

Natural Water Distribution Design – Ground Storage Systems

Requirements and Recommendations:

1. Sites should be graded to allow for positive drainage away from the building perimeter of a minimum of 1% (min. 2% preferred in lawn or plant beds)
2. Sites should be graded to prevent stormwater from draining from improved portions of lots onto another lot in an adverse fashion.
3. Yards and walkways should be sloped towards ground storage and/or plant beds.
4. Channels, ditches and swales are seeded with native grasses where appropriate.
5. Spreader Swales should be utilized where possible; these are shallow ditches on contours, which spill along the entire length to create an even sheet of water flowing down slope.

6. **Ladder Swales can be utilized where appropriate: Series of swales from a drainage ditch along driveways - extend from main ditch similar to rungs on a ladder - designed to collect or spread water.**
7. **French Drains or Dry Wells: Cylindrical holes filled with gravel that catch and infiltrate stormwater.**
8. **Existing native vegetation should be retained and protected from compaction and disturbance during construction.**
9. **Parking lot paving is pitched to depressed islands designed to collect water off of paved areas and directed to plantings through curb cuts.**
10. **Stormwater energy dissipation systems (riprap, riffles, etc.) installed to slow water and reduce erosion in concentrated areas.**
11. **Use of impervious paving is minimized and designed to be captured for groundwater recharge and/or reuse on site.**
12. **No drainage of surface water, including overflow from ponds or swales is allowed into the Mariposa Preserve.**

Specifics of Water Harvesting

Design Objective: Water harvesting at Mariposa, as noted above, refers to a number of techniques and collection systems, mostly passive, which collect and convey a portion of the storm waters generated from the developed portions of the Lot to natural or landscaped areas within the Lot. The use of water harvesting techniques provides a method of delivering moisture, that might otherwise be lost, to enhance the growth of the native vegetation and landscaping; while at the same time conserving the precious water that comes from our aquifer. Water harvesting techniques must be incorporated into the storm water, or drainage management plans for the Lot.

Requirements and Recommendations:

1. **The use of hidden roof top collection and storage, cisterns, and other techniques for capturing and utilizing rainfall and natural drainage is strongly encouraged and may become a useful and attractive part of the drainage plan for the Lot.**
2. **If Water harvesting facilities are planned to be located in a SSCAFCA/Association easement, written approval must be obtained from SSCAFCA (at Owners expense), along with approval of the Founder.**
3. **Above ground swales and ponds must be designed and constructed to act as attractive and functional water harvesting features.**
4. **Water harvesting facilities may be located in the Natural Area, with the approval of the Founder.**
5. **Water harvesting facilities must be shown on the Grading and Drainage Plan and must be approved by the Founder before construction.**
6. **Limit use of rock in drainage swales and ponds in areas of potential erosion to allow better vegetation.**
7. **Drainage swales and ponds must be seeded with native vegetation.**
8. **The certifying engineer must be certain the water features called out on the plans are what are constructed. This includes appropriate shapes of swales, ponds, and amount of cobble etc.**

Water Flow on Estate Homes and Lots

Estate Homes and Lots are located in areas where streets generally do not have vertical curbs and are designed to allow sheet flows of storm water off of and onto adjoining lots. The streets are not designed to carry storm water flows. Estate Lots are a minimum of 1/2 acre in size, but generally average approximately one acre in size, and generally have Building Envelopes of approximately 12,000 square feet. Each Estate Home will require a grading and drainage plan, which must be prepared by a registered New Mexico civil engineer, which will require management of flows from the developed areas of the lots through water harvesting or other techniques that prevent negative impacts on down slope neighbors or arroyos.

Water Flow on Highland Homes and Lots

Highland Homes and Lots are located in areas that generally have vertical curbs and are designed to prevent storm water from flowing off of streets on to adjoining lots and are designed to carry storm water flows within the street. However, cross lot drainage is allowed. Highlands Lots range in size from 1/3 acre to 1 acre, but average approximately 1/2 acre in size, and their Building Envelopes of approximately 9,000 square feet. Each Highlands Home will require a grading and drainage plan, which must be prepared by a registered New Mexico civil engineer and will require management of flows from the developed areas of the lots through drainage to the street, water harvesting, or other techniques that prevent negative impacts on down slope neighbors or arroyos. Management of flows to streets and/or arroyos, using non-erosive techniques is required.

General Maintenance (Mulch)

Mulch is an important component of a newly installed landscape and re-vegetation. Mulch offers a protective cover until plants mature, conserves moisture, moderates soil temperatures, reduces weeds, slows erosion, improves soil structure and content, protects trees from damage and eliminates green waste disposal. For more information on mulches and soil preparation please refer to the Landscape section of these Guidelines.

DRIVEWAYS AND SIDEWALKS

Design Objective: To minimize the visual and drainage impacts of hardened surface areas on each lot.

Requirements and Recommendations:

1. **Driveways and sidewalks should be located so as to minimize their visual impact on important natural features of a Lot such as large or significant plant materials, washes or drainage ways and to minimize disruption of the existing landscape and landform.**
2. **No driveway entrance shall be designed as a "drive under" using beams or arches spanning the driveway, and no driveway entrance feature, or mailbox shall exceed 48 inches in height.**
3. **Driveway and sidewalk widths and surface area should be minimized to reduce visual and stormwater drainage impacts.**
4. **Only one driveway connection from the street is permitted for each Lot.**
5. **Unless required or specifically approved, driveways will not be allowed off of major streets.**
6. **Use of permeable materials such as gravel, decomposed or crushed granite, grid pavers, pervious concrete pavers, grid stabilized grass or other such material is encouraged to allow water to percolate into the soil.**
7. **Exposed aggregate concrete, colored concrete, flagstone, native gravel or black asphalt are all acceptable driveway paving materials.**

8. **The coloring of concrete should reflect the warm rich desert hues, be low in reflectivity and compatible with the surrounding natural environment.**
9. **Uncolored concrete may not be used, unless used with exposed aggregate.**

PARKING

Design Objective: To allow each residence adequate parking while minimizing the visual and drainage impacts of the parking areas.

Requirements and Recommendations:

1. **Each Lot shall contain an enclosed garage, either attached or detached from the home structure with parking space for at least two automobiles.**
2. **Two (2) additional parking spaces should be provided on the Lot to accommodate guest parking. On street parking shall not be counted in satisfying this requirement.**
3. **Views of guest parking areas should be mitigated by screen walls, landscaping or a combination of screen walls and landscaping from adjacent Lots, streets, or public spaces.**
4. **No exterior storage of recreational or commercial vehicles, trailers, boats or other recreational equipment will be permitted on any Lot. All such vehicles and equipment must be stored offsite or in an enclosed garage.**

SITE WALLS

Design Objective: The Southwest has a tradition of using walls to enclose outdoor spaces and to extend building masses and living areas into the landscape. Mariposa seeks to apply this tradition without creating the harsh maze found in some suburban developments. Where possible, view walls, low walls are preferred to promote an open and inviting residential community and help preserve enjoyment of the natural environment.

Southwestern walls are typically constructed with considerable mass and thickness. View walls at Mariposa include open picket structures, which may appropriately be called fences but are structurally supported by pylons with sufficient mass to create a wall-like appearance.

Types Of Walls

The walls shown here are designs that will occur throughout the community.

Definitions:

Privacy/Courtyard Walls: Walls placed on or within the Building Envelope to provide privacy between homes, or to provide screening of less desirable views. Privacy walls enclose Private Areas and are attached to buildings.

View Walls: Walls that provide security but allow views of open space or other amenities.

Retaining Walls: Walls, which structurally create transitions between grade changes, integrate grade changes; integrate buildings with their site and which minimize the impact of grading. Within the Building Envelope, retaining walls may be constructed of man made materials, however, in the Natural Areas of the lot any visible material used in the construction of a retaining wall must be of a natural material.

Requirements and Recommendations:

1. Walls should be extensions of the building, where appropriate.
2. Walls must be constructed of materials and colors that match or complement the building exterior.
3. View Walls and Privacy Walls should be as low as possible with a maximum height of 5'6" feet viewed from the exterior of the wall.
4. Broken glass on top of walls is prohibited.
5. Retaining walls, immediately adjacent to or connecting with a building must be constructed of a material that visually matches, or complements the exterior building material, or that is an integral material in the landscape.
6. Retaining walls (cmu block with footings) may be permitted outside of the residence or Building Envelope, if covered with natural or cultured stone and must be approved by the Founder.
7. Retaining walls made of natural materials (moss rock, flagstone or boulders) must be utilized outside the Private Area.
8. No retaining wall shall exceed 4 feet in height as measured from the outside of the wall from the natural grade, except if a courtyard wall which does not exceed 5'6" from exterior and approved by the Founder. If more than four feet of retaining is needed, the retaining wall system must be terraced with a minimum three feet horizontal separation between each wall. The terraced area must be landscaped, with approved material in accordance with a plan approved by the Founder.
9. Invisible fences are allowed with review and approval of the Founder. However, no part of the fence can be visible after installation.
10. These wall materials and designs are appropriate for use at Mariposa:
    a) Plaster or stucco finish or material integral in texture and color with the building, which may be "Stepped".
11. Design walls to create a massive or thick appearance.
12. These wall materials and designs may be used with approval of the Founder:
    a) Ornamental iron
    b) Tube rail or grid (square)
    c) Stone
    d) Split face block
    e) Pipe rail (horizontal) 2" or larger
    f) Granite
    g) Precast concrete balusters and rails
13. These wall materials and designs may not be used at Mariposa:
    a) Thin wingwall designs
    b) Exposed masonry
    c) "Coyote" fence
    d) Chain link, with or without metal/fiberglass slats (except during construction)
    e) Siding-wood or metal
    f) Wood picket
    g) Other metal/wire fencing

TENNIS COURTS AND OTHER SPORT/RECREATIONAL SURFACES

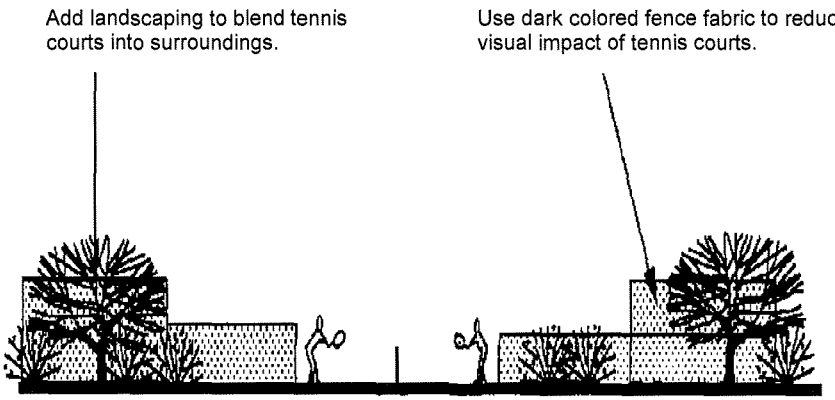
Design Objective: To create the most inconspicuous tennis court or sport/recreation area possible; must be located completely within the Building Envelope.

Requirements and Recommendations:

1. Any grading required to create a level-playing surface must achieve a balance of cut to fill.
2. The playing surface must be screened from view of neighboring lots, as determined by the Founder.

3. **A combination of solid walls and approved colored fencing (black or anodized bronze) is recommended and may be required. The height of perimeter protection may be limited if, in the opinion of the Founder, such devices would be unattractive. No galvanized fencing allowed.**
4. **Vinyl or PVC coated chain link may be allowed with Founder approval.**
5. **Additional landscaping with native trees may be required to mitigate the court's visibility from nearby streets, Lots and Common Areas.**
6. **Ramadas, storage ways must be visually integrated with the main house and surrounding landscape and located completely within the Building Envelope.**
7. **Tennis Court lighting is not allowed.**

Tennis Court Exhibit



EXTERIOR LIGHTING STANDARDS

Protecting Views of the Night Sky

Design Objective: Views of evening sunsets, mountain panoramas, and the New Mexico night sky are among the most enjoyable features of living at Mariposa. Views can be ruined, however, by excessive light from streetlights, athletic fields, and homes. In order to protect these valued views, Mariposa lighting standards focus on limiting the kind and quantity of light from these sources. Careful attention to the selection of fixtures, which are shielded or filtered to minimize ambient light, is essential to preserving night views.

Types of Exterior Lighting

Definitions:

Site Lighting: Lighting mounted either on the ground, on walls or by other means for the purpose of providing safe passage around the improvements. Site lighting is also accent lighting and landscape lighting.

Building Mounted Lighting: Lighting built into or attached to buildings on walls, ceiling, eaves, fascias or other locations for the purpose of providing general illumination, area illumination, or security illumination. These include recessed lighting.

Security Lighting: Lighting intended to provide temporary bright general illumination of the area adjacent to a residence during emergency situations. Security lighting must be Fully Shielded (defined below) and directed downward on to the owner's property. These fixtures must also be set motion sensitive only.

Shielding, Filtering and Wattage Requirements

Design Objective: Proper shielding and filtering, as well as care in the selection of light sources, should be used to reduce ambient light.

Definitions:

Fully Shielded: Outdoors light fixtures Fully Shielded or constructed so that no light rays are emitted by the installed fixture at angles above the horizontal plane as certified by photometric test report. Lights in Full Shielded fixtures may not exceed 40 watts.

Partially Shielded: Outdoor light fixtures Partially Shielded or constructed so that no more than 10% of light rays are emitted directly from the light source at angles at or above the horizontal plane as certified by photometric test report may not exceed 40 watts.

Filtered: Light rays may be emitted directly from the light source in a Filtered Fixture, if the light source is no greater than 25 watts (or equivalent), is filtered through a frosted or semi-opaque lens/filter, and/or is covered with a material or design which allows only limited light to be emitted.

Requirements and Recommendations:

1. **Submission for approval of lighting plans should include the following information:**
    a) **Locations, types of illuminating devices, fixtures, lamps, supports, reflectors and other devices must be shown on plans.**
    b) **Description of the illuminating devices, fixtures, lamps, supports, reflectors, and other devices. The description may include, but is not limited to catalog "cut sheets" by manufactures and drawings.**
    c) **Photometric data, such as that furnished by manufacturers, showing the angle of cut off or light emissions.**
2. **All exterior lighting must be located and oriented to minimize light encroachment onto adjacent lots, streets and open space.**
3. **An excessive number of fixtures, or excess light levels, or glare will not be allowed. The number and location of all exterior light fixtures must be shown on plans reviewed and approved by the Founder. Specific fixtures and specifications must be submitted for review and approval prior to installation.**
4. **Exterior fixtures mounted on buildings shall be no higher than the line of the first story eave or, where no eave exists, no higher than 12 feet above finished grade, and shall be, Fully Shielded, Partially Shielded or recessed in ceilings or overhangs. This requirement also applies to lighting decks.**
5. **Only incandescent lamps with a maximum 40-watt total will be allowed unless otherwise approved by the Founder.**
6. **Up-lighting is not allowed, unless shielded by a roof or eave.**
7. **If filtered light fixtures are proposed, the glass must be opaque, frosted, etc, in order to obscure the light source. Wattage will be limited to a maximum of a 25-watt total per fixture and the Founder may require lower wattage. Light encroachment into neighboring residences and to the night sky must be minimized.**
8. **Security Lighting must be Fully Shielded and angled downward so that the light source is not visible from other properties or the street.**
9. **Circuiting and controls for Security Lighting must only be activated by heat, movement, so they are not continuous. All fixtures must be shown on the final plan submittal. Security Lighting may not be operated or used as general lighting.**
10. **Only one exterior light fixture is allowed per car bay on a garage.**

12. **Seasonal religious and holiday light displays are not covered by these guidelines. However, the Association may adopt reasonable time, place and manner restrictions for the purpose of minimizing damage and disturbance to property and other residents.**
13. **No lighting will be permitted in Natural Areas, except as described herein. Site Lighting must be confined to areas enclosed by walls, unless properly screened by landscaping and landforms (i.e. berms, rock outcrops), or be in the immediate vicinity of the main entrance, with the exception of walkways from the street to the front door. This lighting must be the minimum necessary for safe passage.**
14. **Site Lighting may be directed onto vegetation or prominent site features, such as boulders, but not on the building and must be approved by the Founder.**
15. **The use of solar landscape light fixtures and fluorescent fixtures are strongly encouraged to conserve energy.**
16. **No Tennis court lighting is allowed.**

Prohibited Lighting

The following lighting types are prohibited at Mariposa:

1. **Metal Halide**
2. **Quartz***
3. **Mercury Vapor**
4. **Laser Light or similar high intensity for advertising or entertainment**
5. **Searchlights**

*For the purposes of these standards, quartz lamps shall not be considered an incandescent light source.

Street Lights

Streetlights are required by the City of Rio Rancho to be placed at intersections and the end of streets. Founder has no responsibility for or control over the placement of the streetlights. Care should be taken when designing views to take these streetlights into consideration. The streetlights were designed especially for Mariposa and comply with these Guidelines. They are a dark bronze color to blend with the background; are shielded to hide the light source and to direct the light downward; and have sharp cut-off lenses to minimize light pollution.

SIGNAGE AND ADDRESS IDENTIFICATION

Design Objective: To make signs at Mariposa as unobtrusive and integral to the environment as possible. All signs at Mariposa must conform to a unified standard prescribed by the Founder.

Requirements and Recommendations:

1. **"For Sale" and resale signs must be of the Mariposa approved design.**
2. **Owner may install address identification. Address numbers must be integrated into building walls, freestanding walls or, on mailboxes. Numerals may not exceed 6 inches in height and must be of materials and colors that harmonize with the building design. Address identification must be positioned so it is easily visible from the street.**

3. There can be only one approved sign on a lot at a time unless approved by the Founder.
4. Contractors, or others (financing, sub-contractors, etc.) are subject to these Guidelines and must use the Mariposa approved design.

MAILBOXES

If mailboxes require grouping at the street, they will be designed in a consistent fashion throughout Mariposa by the Founder and located at specified locations. The Founder will determine the location of grouped mailboxes. Otherwise, if individual mail delivery is allowed, the following criteria shall apply:

1. Individual mailboxes should not exceed 48 inches in height.
2. The Founder must approve individual mailbox designs. Mailboxes may have an internal light source (40 watt maximum) that is not visible, as long as the light is directed downward to illuminate the address or property owner name(s) only.
3. Mailbox design and materials must match or complement the residence.
4. Mailboxes must be indicated on all building plans and must be approved by the Founder prior to construction.

BASKETBALL GOALS AND BACKBOARDS

Requirements and Recommendations:

1. Basketball goals may be installed on any lot with approval of the Founder (either permanent or temporary).
2. Basketball goals/backboards should be located as close to the house/garage as possible to reduce the visible impact.
3. Founder may require landscaping for additional screening.

ANTENNAE AND FLAGPOLES

Requirements and Recommendations:

1. Special care should be taken to locate antennae or satellite dishes of any sort, in areas on the roof, which minimize the visibility from neighboring Lots, Common Area, streets, or public areas.
2. No satellite dish larger than 24inches in diameter is allowed. No vertical antennas are allowed, unless fully screened by parapet walls. The view of Dish satellites from adjoining lots, open space or streets must be minimized by sitting and or screening.
3. The Founder must approve permanent and temporary flagpoles. Flagpoles may not be higher than the highest point on the house, adjacent to the flagpole location (excluding chimneys) and must be located within the Building Envelope in close proximity to the structure.
4. Decorative flags, balloons, beacons or banners are not permitted on any Lot except as may be approved by the Founder for special events.

SERVICE YARDS

Requirements and Recommendations:

1. All garbage and trash containers, clotheslines, mechanical equipment, other outdoor maintenance and service facilities must be screened by walls from other lots, common areas, streets, or public spaces.

STORAGE TANKS/LIFT STATIONS

Requirements and Recommendations:

1. All water tanks or similar storage facilities, including sanitary sewer facilities and lift stations, shall either be shielded from view by walls, structures or landscaping or shall be located underground with all visible projections screened from view.
2. Use and/or construction shall comply with all applicable codes and ordinances.

UNDER SLAB DUCTS

Requirements and Recommendations:

1. Because the region has encountered some problems with water entering under slab ducts it is encouraged that consideration be given to making under slab ductwork impervious to water, or eliminate under slab ductwork.

UTILITY METERS AND MECHANICAL EQUIPMENT

Requirements and Recommendations:

1. All utility meters and exterior equipment must be painted to match the building color and/or be screened with a wall or landscaping material.
2. It is strongly encouraged that utility meters and exterior equipment be placed in a location that does not interfere with the front elevation of the residence.
3. All exterior mechanical equipment (roof or ground mounted) must be screened from view of adjacent properties and the street, as determined by the Founder.
4. All exterior ground mounted mechanical equipment must be contained within the Building Envelope.
5. The Founder, prior to installation, must approve the location of all exterior mechanical equipment and screening. Every effort should be made to show on all plans the location and screening, when submitted to the Founder.
6. Any changes to approved location or screening of mechanical equipment, must be approved by the Founder.

RADON GAS PROTECTION

Requirements and Recommendations:

1. Although there has been no indication that significant amounts of radon gas are present in the soil of Mariposa, the Founder recommends that each individual lot be tested by a competent professional for the presence of radon gas.
2. If a determination is made that a radon gas ventilation system is needed, the design professional should be made aware of this and include it in the design of the residence.

LANDSCAPE

The goals of the landscape design for Mariposa are ensuring an aesthetically pleasing landscape which maintains the existing character of the site while minimizing water use for irrigation; increasing the habitat available to wildlife; and producing s fewer allergens than an unplanned landscape with similar quantity of plant material. To achieve these goals, vegetation used at Mariposa must be predominantly native plant material. To maintain the existing character of the site, native plants will be drawn from plant communities, which are found, on the property or in the region. Plant communities are groups of plants that thrive within similar sun, soils and water conditions. Dominant plant communities will be expanded with particular emphasis on those containing large shrubs and trees. Some plant materials found on the site, while native to New Mexico but not indigenous to Mariposa, will be considered inappropriate for certain areas within the community. This planting concept at Mariposa will help blend new construction gracefully into the existing landscape.

MARIPOSA LANDSCAPE GOALS

1. **Produce an aesthetically pleasing landscape that maintains character of the existing site.**
2. **Minimize water use for irrigation.**
3. **Increase the habitat available to wildlife**
4. **Help minimize erosion problems.**

ZONES & CONCEPTS

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.

DIVERSITY

Provide for species diversification, choosing native trees, shrubs, wildflowers and grasses appropriate to the specific character and aspect of each site.

CLIMATE

Potentially harsh environmental conditions such as wind and sun exposure at home site locations can be mitigated through plant selection and placement.

EROSION CONTROL

1. **Choose appropriate grass species such as Buffalo and Blue Grama grasses in lower use, natural areas. Native grass mixes, groundcovers, or low growing shrubs are capable of stabilizing slopes and soil with their root structures. Cut banks and steep slopes with exposed soil should be planted immediately in order to minimize soil loss as a result of wind or water action.**
2. **Maximum slopes should not exceed 4:1**
3. **Wherever possible, it is preferable that grade conditions be handled with smoothly graded and re-vegetated landforms rather than retaining walls. Retaining walls may be preferable where they can assist in the preservation of major areas of natural vegetation.**

LOT LANDSCAPE AREAS

Each Lot has a number of landscape areas, which must be treated differently.

Natural Areas: Areas of natural vegetation outside of the house and Private Areas which in all cases must be maintained in their natural state, or enhanced by species selected from the approved list, as a permanent feature of the landscape.

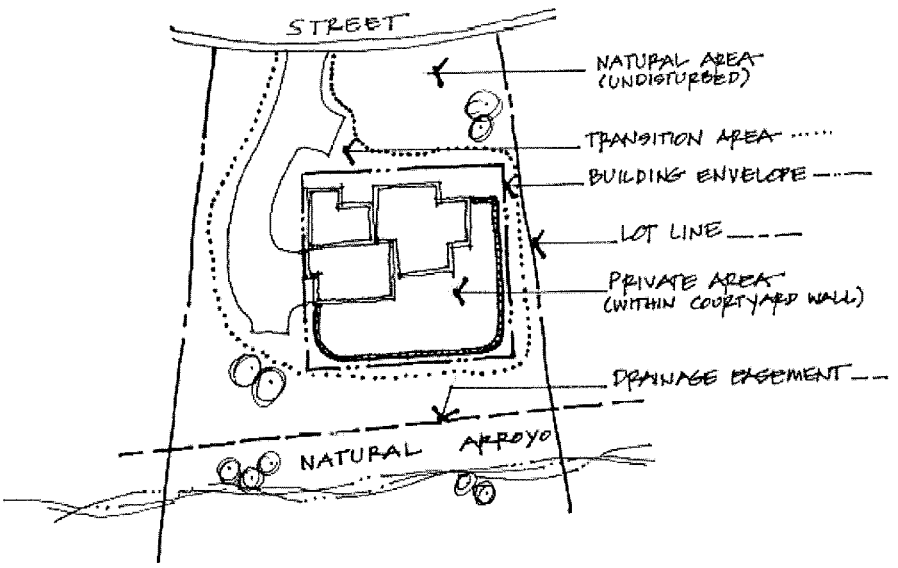
1. **The Natural Areas on a Lot must remain free from any improvements, except as approved by the Founder, and any disturbance resulting from construction must be restored.**
2. **Repair and maintenance of Natural Areas on the Lot is the responsibility of the Lot Owner and must be completed by the completion of the house.**
3. **Landscaping in the Natural Areas to replace vegetation that has been destroyed is required.**
4. **The enhancement of Natural Areas with native vegetation, from the approved list, is encouraged. A landscape plan will need to be approved by the Founder prior to any landscape construction.**
5. **Re-vegetation instructions are available at the Mariposa Information Center.**
6. **Under no circumstances will grading be allowed in the arroyos and drainage easements unless approved in writing by the Founder, City and SSCAFCA. (See Site Planning – Grading Drainage Sections)**

Transition Areas: During construction this is the area between the house and Private Area and the construction fence.

1. **Please refer to Transition Area in the Site Planning Section.**
2. **This area must be restored to a natural condition upon completion of construction in accordance with the landscape concept for the Mariposa community.**

Private Areas: Enclosed spaces within the Building Envelope.

1. **Private Areas may include courtyards, atriums, or the area behind a wall where non-indigenous plants would be appropriate despite their increased watering needs.**
2. **Private Areas have fewer restrictions in the plants, shrubs, and trees that can be planted therein.**
3. **Whereas native plants are encouraged, owners may design their Private Areas to generally suit their preference, with limitations on the amount of spray irrigated turf.**



THE ARROYOS OF MARIPOSA

Design Objective: The landscape concept for Mariposa involves extending the juniper/piñon communities found in the region and at the upper elevations of the community into the residential development and common areas on the lower portions of the property. And, most importantly maintaining the arroyos in their natural condition and allowing them to continue to function as drainage paths within and outside Mariposa.

1. **The major arroyos on the site, as determined by easements, are preserved and will be maintained in their natural state by the Association and SSCAFCA.**
2. **Layout of the individual residential lots and Building Envelopes were designed to protect natural drainage systems. These drainage systems have easements granted to SSCAFCA and the Association and should remain in a natural state, with no vegetation or land form damage without written approval from the Founder, City and SSCAFCA.**
3. **Stormwater may not free flow into the arroyos in a manner that will cause erosion.**
4. **Driveways, culverts and any other improvement contemplated in arroyos with easements to SSCAFCA and the Association must be approved in advance by the Founder, SSCAFCA and in some cases the City.**

NON-NATIVE SPECIES AND MATERIALS

Design Objective: Non-native plant materials must be limited in use to the Private Areas of a Lot. Views from the street and adjacent properties of non-native materials must be minimized.

1. **Non-native plant materials may not extend, at mature height, beyond the roofline of the residence.**
2. **Non-native trees may not, at mature height, grow higher than 26 feet. If planting non-native trees, select species that at maturity will not grow higher than this requirement.**
3. **Gravel, rock, crushed or decomposed granite, or other similar materials may be used outside of Private Areas, for driveways and erosion and drainage control, only with the approval of the Founder. Wood chips, bark, pecan chips, or similar mulches or groundcovers and non-native plant materials are not allowed outside of Private areas.**
4. **If gravel, rock, crushed or decomposed granite or other similar materials are installed for erosion/drainage control, those areas must be shown on the grading/drainage plans prepared by a professional engineer.**
5. **Gravel, rock, crushed or decomposed granite, or other similar materials may not, under any circumstances, be used for purely decorative features.**
6. **Plants from the Prohibited List may not be planted anywhere on a Lot.**
7. **Non-native turf, or blue grass lawns are limited to no more than 20% of the area of the Building Envelope not occupied by the home. This calculation must be included on all landscape plans submitted to the Founder for review and approval.**

PROPOSED AND EXISTING PLANT MATERIALS

Design Objective: Care should be taken to protect all native existing plants at Mariposa and to maintain the natural character of the landscape outside Private Areas.

1. Trees that will be protected (and a plan for that protection) as well as trees that may be lost during construction, must be located and specified on the construction plans that are submitted to the Founder for review and approval. To assist in this planning aerial photo maps of each lot showing all trees on the lot may be obtained from the Founder.
2. All improvements should be sited to avoid existing trees, if at all possible. It is recommended that reasonable efforts be made to transplant all significant and transplantable materials.
3. Competent professionals should be consulted prior to transplanting any natural materials. The Founder may require the need to replace any plant, which dies during transplanting with a plant of the same species and size.
4. All areas disturbed (due to construction, or other causes) outside the Private Areas must be re-vegetated using the Mariposa Seed Mix, or approved equal. The re-vegetation must occur by completion of the home. The Cash Deposit will not be refunded until this has been accomplished.
5. The use of berms as landscape features is allowed if continuous expanses of landform can be created to look natural as opposed to contrived or manmade and does not adversely interfere with natural drainage patterns. Small irregular hummock type landforms are not allowed. Architectural or structured berms (i.e., retaining walls, earth buildings, sculptural landform, etc.) may be allowed if they are an integral part of the architecture and landscape, with Founder approval.
6. All residential Lots shall be maintained in a neat and attractive condition. Minimum requirements include replacing dead or dying plant materials, watering, control of weeds and general clean up.
7. The use of buffalograss or other approved native turf is encouraged when appropriate.
8. The Founder must also approve modifications contemplated for areas outside the Private Area.

FIRE MITIGATION

1. Fire-wise site design is an extremely important in a semi-arid landscape. Appropriate building materials as well as vegetation clearance from any structures should be adhered to in any Building Envelope.
2. Plant deciduous trees and shrubs adjacent to homes and other structures to reduce the fuel potential
3. Evergreen trees must be at a safe distance from any structures, with a five to ten foot clearance between the tree crowns.

MINIMUM PLANT SIZE STANDARDS

All landscaping materials installed in Mariposa in natural areas, transition areas and setbacks must comply with the following minimum size standards depending on availability.

Vegetation Type	***Min. Size Standards***
Deciduous Trees	2" caliper (Standard) or 8' Height (Multi-Trunk)
Evergreen Trees	8' Height
Shrubs	5 gallon
Groundcovers	1 gallon

APPROVED PLANT LIST

Design Objective: The Founder has deemed the plants included in the following list to be indigenous to and compatible with the Mariposa environment and encourages their use. Any species not on this list may not be planted or installed at Mariposa, outside the Private Area, without written approval from the Founder.

Common Name	Scientific Name
Trees	
Arizona Walnut	Juglans major
Arizona White Oak	Quercus arizona
Austrian Pine	Pinus nigra austriaca
Bigtooth Maple	Acer grandidentatum
Box Elder	Acer negundo
Bristlecone Pine	Chiltaipa Tashkentensis
Chokecherry	Prunus virginiana
Desert Willow	Chilopsis linearis
Eastern Redbud	Cercis canadensis
Emory Oak	Querous emoryi
Escarpment Live Oak	Quercus fusiformis
Fragrant Ash	Fraxinus cuspidata
Gambel Oak	Querous gambelli
Gray Oak	Querous grisea
Hackberry	Celtis occidentalis
Hawthorn Species	Crataegus sp.
Hoptree	Ptellea trifoliata
Limber Pine	Pinus flexilis
Mexican Elder	Sambucus mexicanas
Netleaf or Common Hackberry	Celtis reticulata
New Mexico Locust	Robinia neomexicana
Oklahoma Redbud	Cercus reniformis
One-seed Juniper	Juniperus monosperma
Pinon Pine	Pinus edulis
Prarie Flameleaf Sumac	Rhus lanceolata
Purple Robe	Robinia ambigua
Quaking Aspen	Populus tremuloides
Rocky Mountain Maple	Acer glabrum
Rocky Mountain Juniper	Juniperus scopulorum
Scotch Pine	Pinus sylvestris
Shrub Live Oak	Quercus turbinella
Smoke Tree	Cotinus
Soap Tree Yucca	Yucca eiata
Southwestern White Pine	Pinus stroblformis

Velvet Ash	Fraxinus velutina
Vitex	V. angus-castus
Wavyleaf Oak	Quercus undulata
Western Redbud	Cercis occidentalis

Shrubs

Algerita	Mahonia trifoliolata
Algerita	Berberis haematocarpa
Antelope Bitterbrush	Purshia tridentata
Apache Plume	Fallugia paradoxa
Austrian Copper Rose	Rosa foetida bicolor
Autum Sage	Salvia greggii
Beargrass	Nolina texana
Big Beargrass	Nolina Microcarpa
Bigleaf Sage	Artemisia tridentata
Bluemist Bluebeard	Caryopteris x clandonensis
Broom Dalea	Psorothamnus scorparius
Brownspine prickly pear	Opuntia phaecantha
Buffaloberry	Shepherdia canadensis
Butterflybush	Buddeia alternifolia
Chamisa	Chrysothamnus nauseosus
Cherry Sage	Salvia greggii
Chokecherry	Prunus vigernana
Cholla	Opuntia imbricata
Cinquefoil (potentilla)	Potentilla fruticosa
Cliff fedlerbush	Fendlera rupicola
Cliff-rose	Cowania mexicana
Club cholla	Opuntia clavata
Compact Oregon Grapeholly	Mahonia aquifolium "compact"
Coralberry	Symphoricarpos orbiculatus
Creeping Oregon grape	Berberis repens
Curl Leaf Mt. Mahogany	Cercoparpus ledifolius
Desert Broom	Baccharis sallcina
Desert Ceonothus	Ceanothus greggii
Desert Prickly Pear	Opuntia engelmannii
Dunebroom	Parryella filifolia
Dwarf Butterfly Bush	Buddeia davidi nanohensis
Dwarf Chamisa	Chrysothamnus depressus
False Indigo	Amorpha fruticosa
Feather Dalea	Dalea formosa
Fernbush	Chamaebatiaria millefollium
Four Wing Saltbush	Atriplex canescens
Fringe Sage	Artemisia frigida
Gardner's Saltbush	Atriptex gardneri
Golden Current	Ribes aureum
Green Sotol	Dassyirion leipphyllum
Greenleaf Manzanita	Arctostaphylos patula
Greyleaf Cotoneaster	Cotoneaster glaucophylla
Hedgehog cactus	Echinocereus spp.
Horehound	Marrubium vulgare
Joint Fir	Ephedra torryana
Lady Bank's Rose	Rosa banksiae "Lutea" or Alba'
Littleleaf Sumac	Rhus microphylla
Mariola	Parthenium incanum
Morman tea	Ephedra virids
Mountain Mehogany	Cercocarpus montanus
Mugo Pine	Pinus mugo
New Mexico Agave	Agave neomexicana
New Mexico Olive	Forestiera neomexicana
Oregenillo	Aloysia wrightii
Perry's Agave	Agave parri
Persian Yellow Rose	Rose foetida persica
Pointleaf Manzanita	Arctostaphylos pungens
Prarie Sage	Artemisia ludoviciana

Red Yucca	Hesperaloe parviflora
Red-Osier Dogwood	Cornus stolonifera
Rock Spray	Holodiscus dumosus
Rocky Mountain Zinnia	Zinnia grandiflora
Sand Cherry	Prunus besseyi
Scotch Broom	Cytissus scoparius
Seapweed	Baccharis glutinosa
Serviceberry	Amelanchier alnifolla
Shadescale	Atriplex confertifolia
Siberian Peashrub	Caragana arborescens
Silver Buffaloberry	Shepherdia argentea
Silverberry	Elgangnus pungens
Silverlace Vina	Polygonum aubertii
Smooth Sumac	Rhus giebra
Snowberry	Symphoricarpos Albus
Soaptree Yucca	Yucca eiata
Soaptree Yucca	Yucca glauca
Sotol	dasylirion wheeleri
Spanish Broom	Spartium junceum
Spanish Dagger	Yucca baccata
Staghorn Sumac	Rhus typhina
Summer Broom	Genista lydia
Summer Broom	Genista multibracteata
Threadleaf Sage	Artemisia filifolia
Three Leaf Sumac	Rhus trilobata
Turpentine bush	Ericameria laricifolia
Utah Agave	Agave utahensis
Utah Serviceberry	Amelanchier utahensis
Wax Currant	Ribes cereum
Western Virgin"s Bower	Clematis ligusticifolia
Western Sand Cherry	Prunus besseyi
Winter Jasmine	Jasminum nudiflorum
Winterfat	Eurotia lanata
Winterfat	Ceratoldes lantana
Wolfberry	Lycium pallidum
Woodbine	PartheFounderissus inserta
Woods Rose	Rosa woodsii

Herbaceous

Angelita Daisy	Hymenoxys acaulis
Autumn Joy Sedum, Rosy Glow, Cape B	Sedum spp.
Beach Wormwood	Artemisia stelleriana
Blackfoot Daisy	Meiampodium leucanthum
Blanket flower	Gaillardia spp.
Blue Butterflies' Dwarf Delph	Delphinium chinensis hybrid
Blue Flax	Linum lewisll
Blue Spurge	Euphorbia myrsinites
Blue-eyed Grass	Sisyrichium bellum
Bowles Mauve - walflower	Ervsimum linifalium
Bubblegum Mint	Agastache cana
Bush Morning Glory	Ipomoea leptophylla
Bush Pensteman	Penstemon ambigvus
Butterfly Weed	Asclepias tuberosa
Cardinal Pensteman	Penstemon cardinalis
Catmint	Nepeta mussinl
Chocolate flower	Berliandiera lyrata
Common Thyme	Thymus vulgaris/serpyllum
Coral Mint	Agastache rupestns
Creeping Baby's Breath	Gypsophila repens
Curry Plant	Helichrysum angustifolium
Dakota Verbena	Verbena bipinnatifida
Dakota Verbena	Verbena bipinnatifidea
Desert Beardtongue	P. peseudospectabilis

Desert Marigold	Baileya multiradiata
Desert Sage	Silvia dornii
English Lavender	Lavaduia angustifolia
Fern Verbena	Verbena bipinnatifida
Firecracker Penstemon	Penstemon eatoni
Garden Sage	Salvia officinalis
Garlic Chives	Allium tuberosum
Gaura	Gaura lindheimeri
Gayfeather	Liatris punotata
Germander	Teucrium chamaedrys
Giant Four-O'Clock	Mirabilis multiflora
Globemallow	Sphaeralsia spp.
Golden Aster	Chrysopsis villosa
Hen-n-Chicks	Sempervivum
Hummingbird Mint	Agastache rupterris
Hummingbird plant, California Fuschia	Zauschneria californica
Indian Paintbrush	Castilieja species
James Penstemon	Penstemon jamesii
Kinnikinnick	Artostaphylos uva-ursi
Lady Bank's Rose	Rosa banksiae "Lutea" or "Alba"
Maximillian Sunflower	Helianthus maximiliani
Mexican Evening Primrose	Oenothera berlandiera
Mexican Hat	Ratibida colurnifera
Mexican Sage	Salvia leucantha
Mock Strawberry	Duchesnea indica
Moonshine Yarrow	Achillea taygetea
Narrowleaf Penstemon	Penstemon angustfallus caudatus
Nodding Onion	Allum cernuum
Oregano	Origanum spp.
Organ Mt. Primrose	Oenothera orgamensis
Ornamental Catmint	Nepeta mussini
Palmer Penstemon	Penstemon palmeri
Paper Flower	Psilostrophe tagetes
Penstemon	Penstemon linarlodes
Perky Sue	Hymenoxys species
Peruvian Verbena	Verbena peruviana
Pincushion	Dianthus simulans/tiny rubies
Pineleaf Penstemon	Penstemon pinifolius
Pink Chintz	Thymus praecos
Pitcher Sage	Salvia azures grandiflora
Plains Verbena	Verbena canescens
Powis Castle Wormwood	Artemisia aabrotanum
Purple Aster	Machaeranthera bigelovii
Purple iceplant	Delosperma cooperi
Purple Prairie Clover	Petalostemum purpureum
Pussytoes	Antennaria spp.
Rayed Cota	Thelesperma filifolia
Red Hot Poker	Kniphofia uvaria
Rocky Mountain/Desert Zinia	Zinnia graniflora
Rocky Mountain Penstemon	Penstemon strictus
Roman Wormwood	Artemisa pontica
Rosemary	Rosmarinus officianalis
Rue	Ruta graveolens
Russian Sage	Perovskia atriplicifolia
Santolina	Santolina chamaecyparissus
Scarlet Bulger	Penstemon barbatus
Scarlet Mint	Stephys coopicee
Serbian Yarrow	Achilas serbioa/milefolium
Siberian Iris	Iris siberica
Silver Speedll/Birdseye/Veronica	Incana/allioni/alba
Turkish Speedwell	Cunefolia/filliformis/liwanesis
Silverleaf Groundsel	Senecio longilobus
Snow-in-Summer	Cerastium tomentosum

Soapwort	Saponia ocymoides
Starflower	Ipheon uniflorum
Sundrops	Caylophus hartwegii
Sunrose	Hellanthemun nummularlum
Sweet Sand Verbena	Aronia fragrans
Wasatch Penstemon	Penstoman cyananthus
Western Verain	Verbena wrghtii
White Evening Primrose	Oenothera caespitosa
White Yarrow	Achillea millefolium
Wild Marigold	Dyssodia acerosa
Wild Onion	Allium geyeri
Winecups	Callirhoe involucrata
Woody Veronica	Veronica pectinata
Woolly Lamb's Ear	Stachys lanata
Wooly Thyme	Thymus pseudolanuginosis
Wrights Buckwheat	Eriogonum wrightii
Yellow Evening Primrose	Oenothera missouriensis
Yellow iceplant	Delosperma nubigenum
Yerba de Mansa	Anemopsis californica

Grass

Alkali Sacaton	Sporobolus airoides
Ariba Western Wheatgrass	Pasoopyrum smithii
Black Grama	Bouteloua eriopoda
Blue Avena Grass	Helictotrichon sempervirens
Blue Grama	Bouteloua gracilis
Buffalograss	Buchloe dactyloides
Burro Grass	Scieropogon brevifolius
Bush Muhly	Muhlenbergiaporteri
Cheyenne Indian Grass	Sorghastrum nutans
Dwarf Feathertop	Pennisetum villosum
Galleta	Hilaria jamesli
Giant Sacaton	Sporoboluswrighii
Hairy Grama	Bouteloua hirsuta
Indian Ricegrass	Oryzopsis hymenoides
Little Bluestem	Andropogon scoparius
Mountain Muhly	Muhlenbergia montana
Redondo Arizona Fescue	Festuca arizonica
Regal Mist	Muhlenbergia capilaris
Ring Muhly	Muhlenbergia torryi
Sano Bluestem	Andropogon hallii
Sand Dropseed	Sporobolus cyrptandrus
Sand Lovegrass	Eragrostis tricodes
Side-oats Grama	Bouteloua curtipendula
Silver Bluesetem	Andropogon barbinodis
Spike Dropseed	Sporobolus contractus
Sporobolus cyrptandrus	Sand Dropseed

Reclamation Seed Mix

The reclamation seed mix must be used to re-vegetate all Transition Areas disturbed during the construction process. Reclamation seeding information may be obtained from the Mariposa Information Office. The most appropriate seed mix is as follows:

Common Name	***Scientific Name***	***Lbs./Ac.***
Bouteloua curtipendula	Sideoats Grama "Niner"	9.0
Bouteloua gracilis	Blue Grama "Hachita"	9.0
Hilaria jamesii	Indian Rice Grass "Paloma"	4.0
Oryzopsis hymenoides	Galleta "Viva"	
Sporobolus cryptandrus	Sand Dropseed	2.0
Muleybergia porteri	Bush Muhly	1.0

Fallugia paradoxa	Apache Plume	0.5
Ceritoides lanata	Winterfat	1.5
Chrysothamnus nausedsus	Chamisa	0.5
Verbena bipinnatifida	Fern Verbena	0.75
Aster Bigelovii	Purple Aster	0.5
Senecio longilobus	Thread leaf Groundsel	0.5
Sphaeralcea coccinea	Scarlet Globemallow	0.25
Baileya multiradaiata	Desert Marigold	0.5
Linum lewisii	Blue Flax	0.5

Change From Approved Seed Mix

Founder will consider variations from the standard Mariposa seed mix, based on seed availability, site conditions and proposed landscape plan. Any proposed change to the standard Mariposa seed mix must make a written request to the Founder of approval.

PROHIBITED PLANTS

These are plants, which will grow in the region but, due to inappropriate biological or visual characteristics, are prohibited from use anywhere on a Estate or Highland Lots:

1. **All Palm Trees**
2. **European/Russian Olive - Olea europaea, and Elaeagnus angustifolia**
3. **Tamarisk or Salt cedar - Tamarix spp.**
4. **Cypress - Cupressus and Chamaecyparis spp.**
5. **Elms - Ulmus Pumila**
6. **Mulberry - Morus Alba**
7. **Narrow leaf Cottonwood - Populus Angustifolia**
8. **Broadleaf Cottonwood - Populus Deltoides**
9. **Valley Cottonwood - Populus fremonti 'Wislizeni'**
10. **Poplar Cottonwood - Populus Nigra**
11. **Ponderosa Pine**
12. **Palm Yucca**

WATER CONSERVATION GOALS

Design Objective: Mariposa seeks to become a model for efficient water use in this arid New Mexican environment. The guidelines for landscaping, building design and construction are conceived to minimize consumption and encourage reuse. Mariposa will continuously promote consciousness about conservation and use, to assure that the water needs of the community and the region are realized. In order to meet the water conservation goals, the following policies for water use at Mariposa shall apply (see the Sustainable Living section of these Guidelines for more information and details on water conservation).

Requirements and Recommendations:

1. **No resident shall waste water through excessive watering or cause the flow of waste or excess water onto adjacent property, streets or open space.**
2. **Specific water conservation requirements and recommendations for the interior of the home are listed in the Sustainable Living section of these Guidelines.**

3. No individual wells are allowed at Mariposa.
4. Irrigation and watering can not be conducted between 10:00 a.m. to 6:00 p.m. during non-freezing months or at the restricted times in accordance with the governing regulations.

LANDSCAPE IRRIGATION

1. Permanent spray irrigation systems are prohibited in all areas except for turf areas in the Private Areas of the Lot. However, temporary spray irrigation systems may be used to help germinate and establish native re-vegetation efforts.
2. Temporary irrigation systems for non-turf areas are encouraged. Where irrigation of non-turf areas are necessary, drip irrigation systems or bubbler systems should be used.
3. In no case shall heads irrigating turf grass throw directly into a planting bed, foundation structure, parking lot, sign face, roadway, attached sidewalk, or walkway.
4. Pressure vacuum breaker (PVB) or reduced pressure backflow preventer (RP) is required for all residential irrigation as specified by the City Building Code.
5. An electric, solid-state controller is required for all systems and shall be equipped with a master valve terminal and at least two fully independent programs.
6. All irrigated turf grass shall utilize remote electric control valves installed in valve boxes. No manual valves are allowed.
7. All turf within public right-of-ways shall be approved native grass.

Pools and Water Features

Requirements and Recommendations:

1. Decorative pools shall be limited to three hundred (300) square feet in surface area. Sheet and cascade water features are preferred, and vertical jets with a vertical height greater than six feet are not allowed.
2. Swimming pools are limited in size to nine hundred (900) square feet.
3. Water fountains, or water features, can be located outside the courtyard area if it approved by the Founder. In no case shall it exceed six feet in height from the finished grade.

Water Harvesting

Design Objective: Water harvesting at Mariposa refers to a number of techniques and collection systems, mostly passive, which collect and convey a portion of the storm waters generated from the developed portions of the Lot to natural or landscaped areas within the Lot. The use of water harvesting techniques provides a method of delivering moisture that might otherwise be lost, to enhance the growth of the native vegetation and landscaping (see the Sustainable Living section of these Guidelines for more information).

Requirements and Recommendations:

1. The use of hidden roof top storage, cisterns, and other techniques for capturing and utilizing rainfall and natural drainage is strongly encouraged and may become a useful and attractive part of the drainage for the lot.
2. Above ground swales and ponds, if designed properly, can act as attractive water harvesting features.

ARCHITECTURE

The objective for the architecture at Mariposa is to establish the highest standard of quality for the design of buildings and sensitivity to the environment. The architectural character of Mariposa should reflect the casual elegance of southwestern living. Southwestern character is derived from a wide variety of historic, geographic, cultural, climatic and thematic influences including Native American, Hispanic, Mexican, Anglo, and the experience of the American West, including recognition of the influence technology and industrialization have had on the region. The architecture of Mariposa should reflect the rich heritage of tradition in this special place we live.

Architectural character results from a composite of site, form, materials, colors and detailing. Care should be taken to closely adhere to the specific allowable architectural style selected, and not mix elements from various architectural styles.

Building in the stark, yet radiant beauty of this desert setting requires respect for this fragile environment.

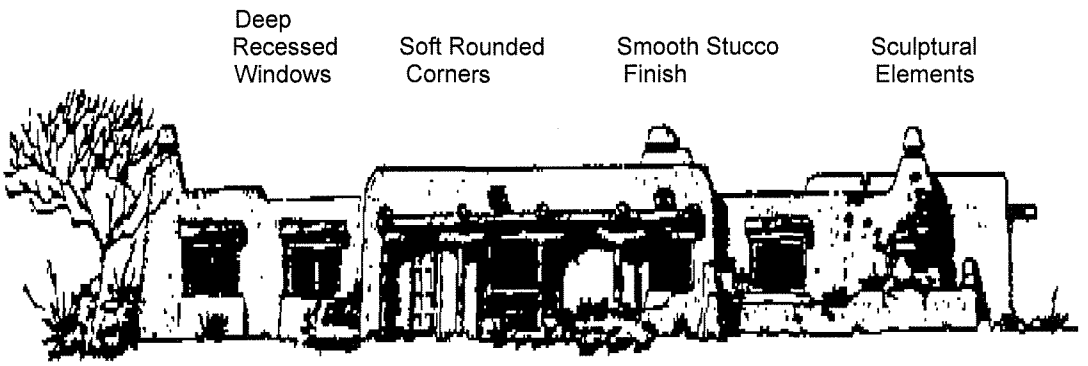
A section of the Guidelines, entitled "Sustainable Living at Mariposa" details, among other things, the role architecture plays in sustainable building.

ARCHITECTURAL STYLES ALLOWED IN MARIPOSA

The possibilities of making a strong regional statement by combining past and present, old and new, guide the selection of the architectural styles at Mariposa. The following is a description of the approved architectural styles for Mariposa, with guidelines for how those styles should be applied. .

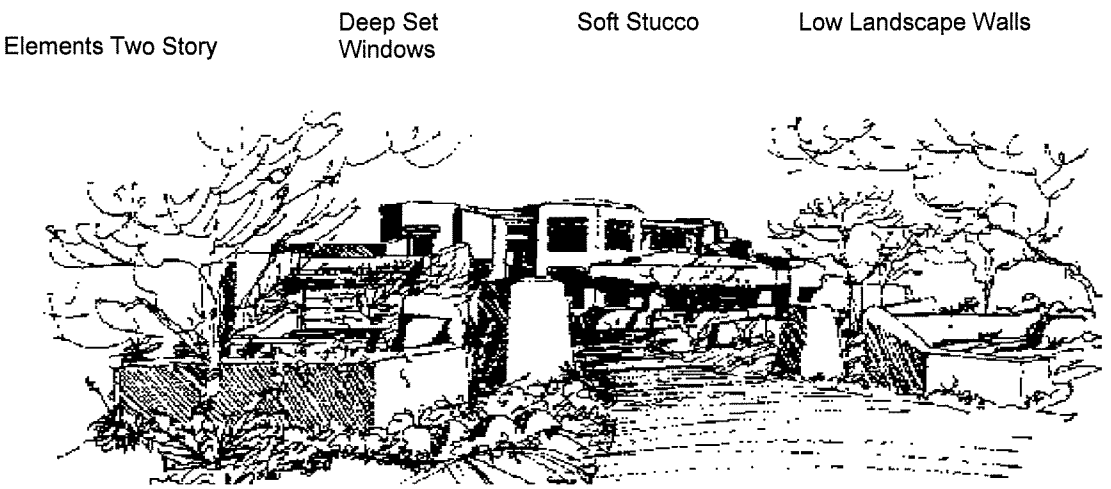
Pueblo Style

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

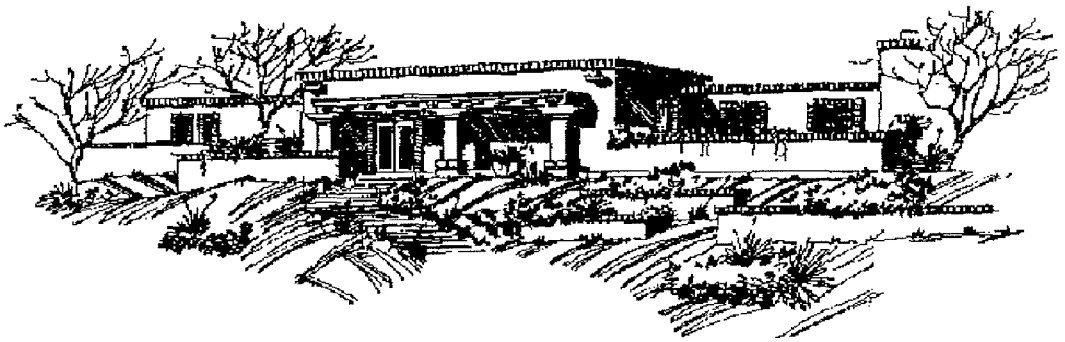
Territorial style is walled architecture, which simulates the low, flat roofed dwellings of territorial New Mexico, during a period when sawmills and brick kilns were first introduce into New Mexico. Brick copings, on the parapet caps, wood columns and decorative wood door and window casings, characterize 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

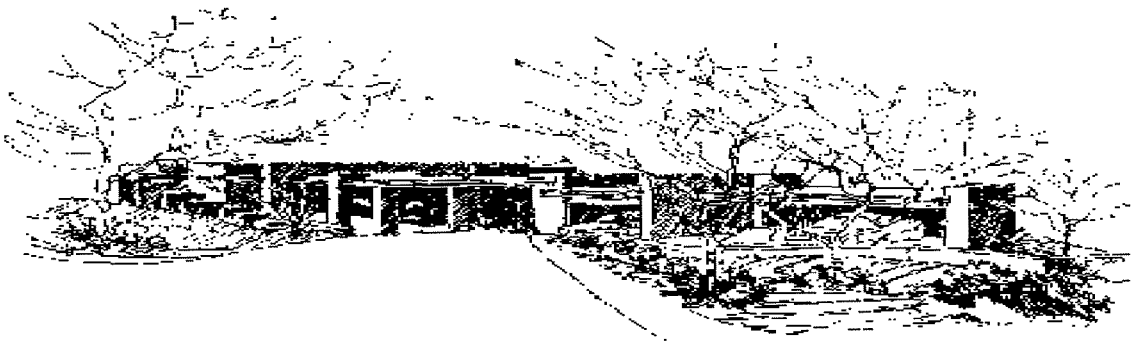


Contemporary Style

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

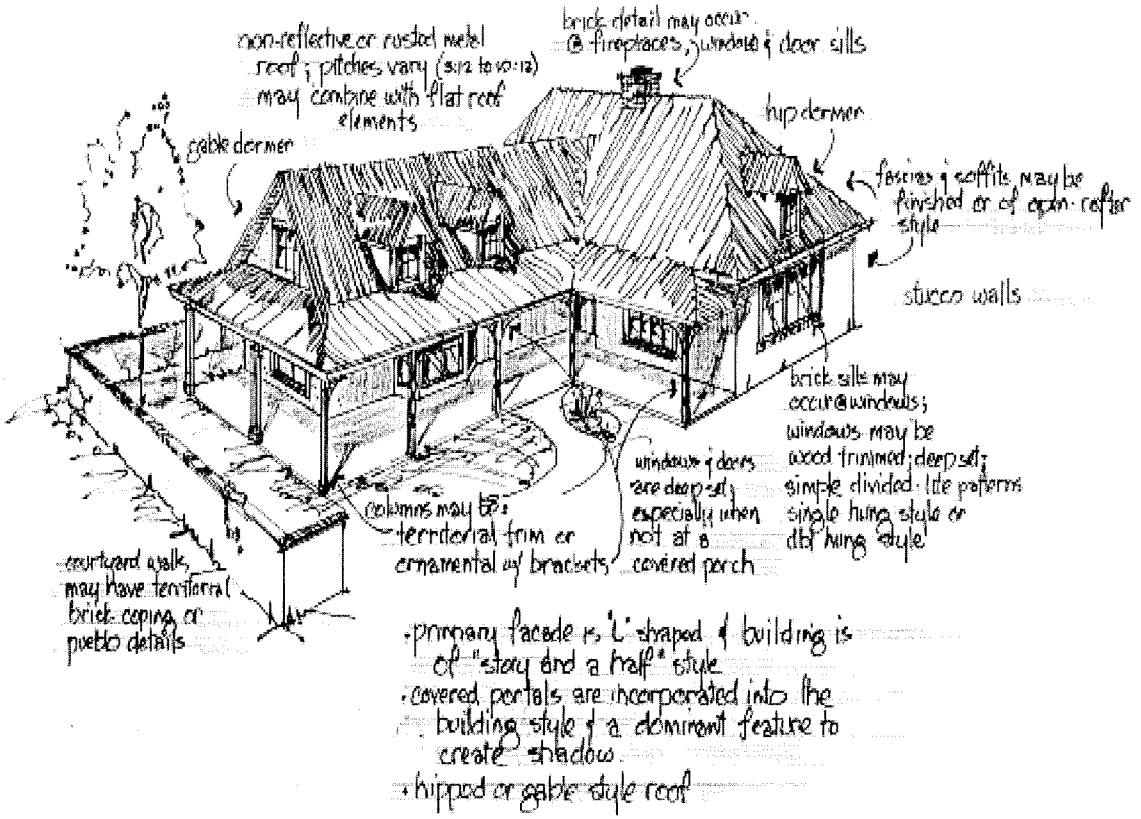
Multi-stepped Wood Fascia



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.

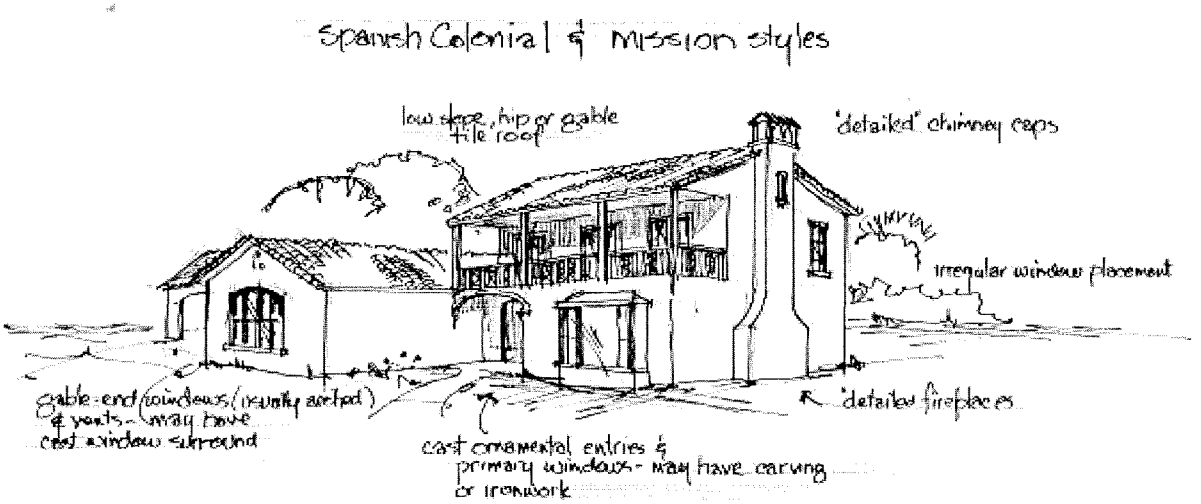
Historically, roof spans were much short than those employed today and as a result traditional northern New Mexico style homes kept very much to scale with the walls that supported them. Since spans of today's trussed roof buildings are greater and have a tendency to create a non-characteristic overstated 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.



BUILDING HEIGHTS

The topography and natural features of Mariposa are dramatically varied with ridges, arroyos and other elevation changes contributing immeasurably to the beauty and quality of the environment. Low profile buildings will minimize intrusion and impact and preserve views and the visual beauty of Mariposa. Therefore buildings should be as low as possible in order to integrate with their surroundings. One of the principal ways of achieving a low profile is to site the structure partially below natural grade. This is especially effective when done at the high point of the natural topography and may be required by the Founder.

Requirements and Recommendations:

1. **The maximum overall building height shall not exceed 26' 0" measured from the Approved and Certified Finished Pad Elevation of each lot to the highest point on the structure, excluding chimneys. Pitched roofs are measured to the ridge.**
2. **To achieve a lower profile, residences are encouraged and may be required by the Founder to be sited partially below grade.**

3. Natural Grade elevations, at the low point and high point, adjacent to the proposed structure must be indicated and identified on all construction plans. These spot elevations should be identified as feet above sea level.

4. The elevation of the highest point on a proposed structure, excluding chimneys, must be indicated and identified as the highest point on all construction plans.

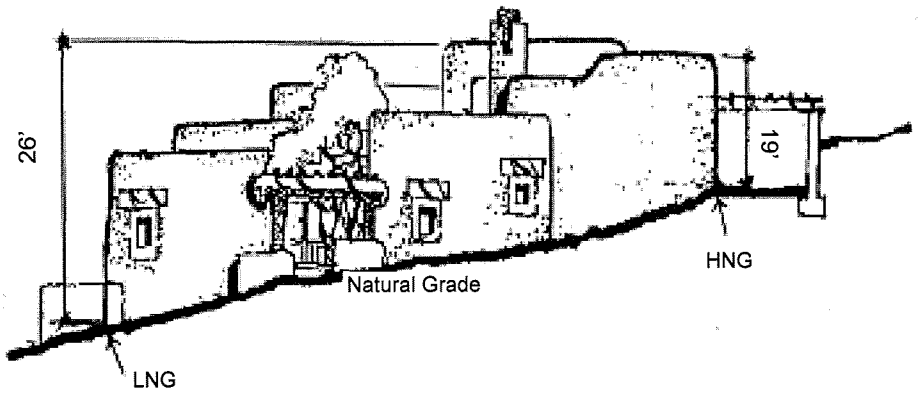
5. All height measurements are made at natural grade (the grade which existed prior to construction) adjacent to the structure, or proposed structure.

6. Pitched roofs may not exceed a four (4) inch in twelve (12) inch pitch.

7. Northern New Mexico and Spanish Colonial styles may have pitched roofs that have a ridge or peaks against the skyline. All other architectural styles may have pitched roofs, provided the pitched roof has an abutting parapet or wall that is higher than the sloped portion of the roof. If a pitched roof, with a ridge or peak against the skyline is proposed for styles other that Northern New Mexico or Spanish Colonial the Founder may approve, or disapprove the roof on a case by case basis, based on esthetics and appropriateness of the roof for the architectural style of the home.

8. It may be necessary to utilize flat roofs for portions of homes that have pitched roofs in order to minimize the span and visual impact of the pitched roof portion of the house. Spans of the pitched roof areas of Northern New Mexico and Spanish Colonial/Mission styles are usually quite short, so varying plate heights for different roof planes may be required by the Founder to keep the character of the style from being overwhelmed by an out of scale roof.

Measurements of Building Heights



BUILDING MASSING

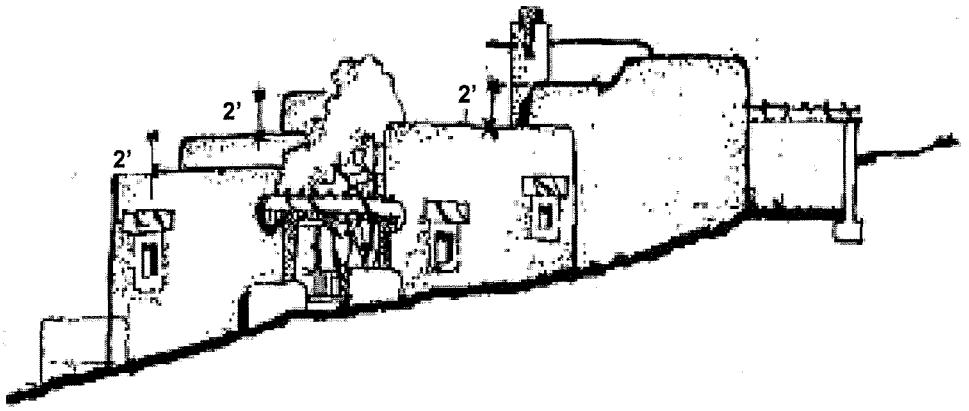
Definition: A volume of enclosed space, which visually appears as a rectilinear form, consisting of a roof and at least 3 walls. Building masses should follow natural site contours, as much as possible.

Requirements and Recommendations:

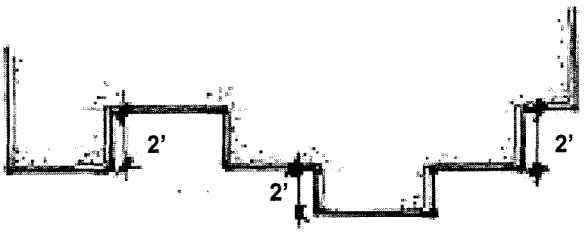
1. **Residences with a single floor level are acceptable provided the building height and massing and grading guidelines are met.**
2. **Building masses should be predominantly horizontal rather than vertical, yet should not create long unbroken elements.**
3. **Each building mass must be offset from adjacent masses by at least 2'-0" vertically and 2'-0" horizontally. Mass dimension must be labeled on all plans.**
4. **Each building must have at least 3 distinct masses visible from 3 elevations.**

5. **The distinct masses of the building shall be visible from all sides and shall be offset from each other by at least 2'0" both vertically and horizontally.**
6. **Drawing below depicts Building Massing dimensions.**

Vertical Building Massing



Horizontal Building Massing



ACCESSORY LIVING QUARTERS

Accessory Living Quarters are permitted only in the Estate and some Highlands lots in Mariposa. Such structures may be attached or detached but must be in the same architectural style, materials and colors as the residence, and should be visually related to it by walls, courtyards, or major landscape elements. Any accessory living quarters must comply with all zoning regulations and is approved by the Founder.

BUILDING MATERIALS

Design Objective: Exterior surfaces must be materials that harmonize with the natural landscape as well as provide an outer skin to withstand the climate extremes. Stabilized adobe block and stucco are two such materials, which meet the aesthetic criteria and are regularly used for construction in the Southwest. The use of these materials at Mariposa is strongly encouraged.

Exterior elements and materials should be limited in number and be compatible with one another, while being in scale with the building. Care should be taken so that materials do not detract from the building's overall appearance or become visually complicated. It should be noted that materials appropriate for one architectural style may not be appropriate for other styles and may not be allowed by the Founder. As an example: Barrel tile roofs, while appropriate for Spanish Colonial style homes are not appropriate for any other architectural style.

Requirements and Recommendations:

1) **Materials are crucial to creating architectural richness and continuity throughout Mariposa.**
2) **On any single building, the materials for exterior application shall be limited in number, compatible with one another and in scale with the building.**
3) **Materials used for one architectural style may not be appropriate for other styles and may not be allowed by the Founder.**
4) **Siding materials shall extend down to finished grade to eliminate areas of exposed foundation.**
5) **The detailing of any elevations exposed to public view should be consistent with the front elevation.**
6) **These materials are appropriate for use as residential exteriors at Mariposa:**
   a) **Exterior plaster or stucco-using a light to medium texture**
   b) **Wood fascia-stained or painted as accents**
   c) **Stone and cultured stone**
   d) **Rammed Earth**
7. **These materials may be used with approval of the Founder:**
   a) **Ornamental iron**
   b) **Concrete, including painted or dyed**
   c) **Oxidized copper and steel**
   d) **Ceramic tile**
   e) **Concrete columns**
   f) **Glass block**
   g) **Very dark or opaque glass**
   h) **Brick (earth tones occurring at Mariposa)**
   i) **Split faced block (earth and landscape tones occurring at Mariposa)**
   j) **Other materials may be considered for approval by the Founder.**
8. **These materials are inappropriate and may not be used at Mariposa:**
   a) **Exterior plaster of stucco using heavy textures, such as swirl or heavy trowel**
   b) **Fixed fabric or plastic awnings**
   c) **Exposed standard, colored concrete block, slump block**

BUILDING COLORS

Design Objective: Colors should reflect the warm, rich and often vibrant hues of the Mariposa desert, with accents of complementary tones that reflect the traditions of the region. The Pre-Approved building colors were selected to create a range of colors acceptable in the community. Due to the number and variety of colors to choose from, the color list is only a sampling of the colors permitted.

Requirements and Recommendations:

1. **Color may be chosen from a set of pre-approved colors, listed below, established by the Founder. These colors have been carefully chosen for their compatibility with the natural environment, as well as their harmony with one another. Other colors, from this range, may be submitted to the Founder, but are subject to Founder approval.**

2. **It is necessary to provide product color information, including manufacturer, color name, reflectivity percentage and product number to the Founder for approval.**
3. **Consider the use of darker colors for homes on the ridges and in more exposed locations and lighter colors for homes, which are not on the ridge.**
4. **In general, colors for roofing shall be darker in color and hue than the building's exterior walls.**
5. **Colors for exterior artwork and sculpture should take into consideration the site.**
6. **All pre-approved colors have a light reflective value 55% or less and may be used throughout Mariposa. Other colors may be submitted to the Founder for approval, but any color must have a reflective value of 55% or less and must fall within the general color range of the approved colors.**

Approved Stucco Colors

Dryvit

Apache Moon	Flagstone	Red Mesa	Taos Adobe
Canyon Rose	Mesa Verde	Rio Grande	Tierra Madre
Desert Bluff	Prairie Straw	Riverstone	

El Rey Stucco

Acorn	Driftwood	La Luz	Sandalwood
Adobe	Dry River	Ore	Straw
Buffalo	Fawn	Pottery	Stone Bluff
Buckskin	Harristone	Pueblo	Suede
Clay	Hogan	River Rock	Taos
Cottonwood	Husk	Sahara	Tierra
Deerskin			Timber

Sto Stucco

Abiquiu	Duranes	Pueblo	Suede
Acoma	Mesa Del Sol	San Antonio	Torreon
Adobe Brown	Mesilla	San Juan	Tumbleweed
Alamo	Mocha Cream	Sandia	Wild Cattails
Amarilla	Pecos	Sedona	

SonnoWall

Abiquiu	Nougat	Sandia
Acoma	Nutshell	Sedona
Adobe Brown	Parkland	Soft Blush
Brown Berry	Peach	Torreon
Mesilla	Pueblo	Tumbleweed
Mesa Del Sol	San Juan	Woodhue

Requirements and Recommendations:

1. **The Founder may consider other Accent Colors.**
2. **A rendering or drawing of all building elevations depicting all proposed colors and locations must be submitted to the Founder for review.**

Accent Stucco Colors

Design Objective: The Founder on a case-by-case basis may consider accent stucco colors of a wider palette. These colors may be used in limited areas as determined by the Founder depending on location (as an example: under portals), architectural style, etc. Any of the approved stucco colors may be considered as accent stucco colors and additional colors, as listed below, may be considered by the Founder:

El Rey

Casa	Desert Rose	Horizon	Kokanee	RioBravo	Sand
Coral	Hacienda	Kettle	Palomino	Sage	Vega

SonnoWall

Cinnabar	Light Spice	Orange Cream	Saltbox	Tijeras
Nambe	Luna	Pebble	Sandpiper	

Sto

Cimmaron	Navajo White	Paloma	Warm Taupe

Accent Trim Colors

Design Objective: Accent trim colors on front doors, window sashes and other architectural elements are allowed, but must be approved in advance by the Founder.

ROOFS

Design Objective: Desert architecture is commonly a "walled" architecture rather than the "roofed" architecture that is more common to regions with tall trees or heavy rain and snowfall. It is the intent of Mariposa to maintain this desert tradition of walled architecture. However, the use pitched roofs on appropriate architectural styles is allowed. Since roofscapes form an important part of the visual environment, they must be carefully designed. In keeping with our goals of visual harmony and sensitivity to our high desert environment, the Mariposa approved architectural styles allow pitched roofs on certain style homes. Pitched roofs are appropriate for Northern New Mexico and Spanish Colonial/Mission architectural styles and may be appropriate on Contemporary architectural styles on a case-by-case basis. Shed roofs may be considered for portions of roofs, or portals on some other styles. Pitched roofs must comply with the following criteria:

Requirements and Recommendations:

1. **A maximum slope of four (4) inches in twelve (12) inches is allowed.**
2. **Flat tile roofs must be dark colored and have a non-reflective surface.**
3. **Barrel and approved "S" tile roofs must be solid in color, not variegated and are allowed only on Spanish Colonial style homes.**
4. **No roof mounted equipment; including solar panels are allowed on pitch roofs, all such equipment should be mounted on the flat roof areas of the home. Special care should be taken in locating skylights (and limiting the number) on pitched roofs to minimize visual impact and reflectivity. On a case-by-case basis the Founder may prohibit use or location of skylights.**
5. **Roof mounted appurtenances on flat roofs (including, but not limited to skylights, air conditioning/heating units, solar panels and antennas) shall be totally concealed from view as part of the architectural style of the building and not visible from neighboring property or adjoining public right of ways. Every attempt should be made to minimize the visual impact of solar panels and small satellite dishes. Roof mounted solar panels and equipment shall match the roof in color. Panels shall be an integrated part of the roof/ building design, mounted directly to the roof plane.**
6. **Parapets may be used to conceal roof-mounted equipment.**
7. **The location of small satellite dishes and solar panels must minimize visual impact and must be approved by the Founder.**
8. **Parapet copings shall be integral stucco, pre-cast concrete, stone, brick or oxidized copper.**
9. **Gutters, down spouts, scuppers, overflows, canals, and other water capture/control devices must be an integral component of the building's design.**
10. **No asphalt or fiberglass shingles are allowed.**
11. **Metal roofs must have a reflectivity of 40% or less and the Founder must approve colors.**

Roof Forms

Requirements and Recommendations:

1. These roof forms are appropriate for use at Mariposa:
    a) Flat roofs with parapets or overhangs
    b) Combining of one and two-story elements
    c) Parapets
    d) Varying plate and wall heights
2. These roof forms may be used with approval of the Founder:
    a) Hip Roofs
    b) Shed Roofs
    c) Domed Roofs
    d) Gable Roofs
    e) Dormers
    f) Arched Roofs
3. These roof forms may not be used at Mariposa:
    a) Gambrel
    b) Mansard
    c) Steeply Pitched

Roof Materials

Requirements and Recommendations:

1. These roof forms are appropriate for use at Mariposa:
    a) Built-up roofing (non-reflective) for flat roofs
    b) Copper (oxidized)
    c) Single ply membrane (semi-flat roof only/non-reflective) for flat roofs
2. These roofing materials may be used with approval of the Founder:
    a) Concrete or clay roof tiles, flat or barrel, with integral color
    b) Multi-colored roof tiles
    c) Oxidized metal (must have reflectivity of 40% or less)
    d) Slate Tile
    e) Standing seam metal (must have reflectivity of 40% or less)
3. These roofing materials may not be used at Mariposa:
    a) Asphalt or fiberglass shingles
    b) Concrete tile with surface color
    c) Thick butt wood shakes
    d) Wood shingles

Chimneys

Design Objective: Chimneys shall be simple in design and massive in proportion and designed to match the architectural style of the home.

Examples of appropriate chimney details:

Pueblo
Stucco to match house

Contemporary
Metal Caps

Contemporary
Precast
Concrete Cap

Contemporary
Stone

Stone Stucco Trim

Colonial Spanish

Colonial Spanish Stucco

Territorial Brick or decorative Stucco

Requirements and Recommendations:

1. **Metal flues shall be enclosed in housing of approved material. The Founder will approve materials based upon aesthetic qualities only. While such materials must have sufficient fire-retardant qualities, the Founder makes no representation or guarantees as to such qualities.**
2. **Metal flues shall not exceed the minimum height requirements of the City of Rio Rancho Building Code Division.**
3. **Metal flues must be made of materials and designed to complement the style of the residence. If painted they must match or complement the exterior colors of the residence.**
4. **Chimneys should be designed to be in scale and proportion with the architecture of the building. All metal flashings, etc., must be painted to match the house.**
5. **These chimney materials are appropriate for use at Mariposa:**
   a) **Stucco to match house**
   b) **Pre-cast concrete**
   c) **Stucco trim**
   d) **Stone**
6. **These chimney materials may be used with approval of the Founder:**
   a) **Brick**
   b) **Metal, treated or painted**
7. **These chimney materials may not be used at Mariposa:**
   a) **Wood siding**
   b) **Exposed concrete block**
   c) **Exposed wood trim**

DOORS AND ENTRIES

Design Objective: Doors and entrances should be appropriate for the architectural style of the home. Exterior doorways and entryways should provide shade protection, depth and a strong shadow-line. They should provide a focal point at the entryway. Courtyards at or near the entry are encouraged.

Requirements and Recommendations:

1. **"Flat doors" with no detailing or overhang doors or entryways with no elaboration or designation may not be used at Mariposa, unless it is appropriate for the architectural style and approved by the Founder.**

Doors and Entrance Window

Interesting Forms and Detailing on Courtyard, Entry Doors and Walls

Deep Recessed Windows

Shutters Exterior or Interior

GARAGE DOORS

Requirements and Recommendations:

1. **Must be integrated into the design of the main house and materials must be integrated with the residence.**
2. **The maximum garage door width is 18 feet.**
3. **Any additional garage, after the first double door or two single doors, must be offset in massing by at least two feet horizontally. This must be dimensioned on the plans.**
4. **Side entry garages are preferred to those fronting the street.**
5. **Garages sited deeper in the lot are encouraged.**
6. **Garage doors must be set back from the face of the main wall a minimum 12". This must be dimensioned on the plans.**
7. **These garage door materials are approved for use at Mariposa:**
   a) **Wood, painted or stained**
   b) **Metal, painted or treated**
   c) **Vinyl, colored to match or accent home**
8. **These garage door materials may be used with approval by the Founder:**
   a) **Glass**
   b) **Doors with windows**
9. **These garage door materials <u>may not be used</u> at Mariposa:**
   a) **Untreated wood or metal**

DETACHED GARAGES

Detached garages are permitted in the Estate and Highland Areas of Mariposa. However, such structures must be in the same architectural style, materials and colors as the residence, and should be visually related to it by walls, courtyards, or major landscape elements.

WINDOWS AND TRIM

Design Objective: Windows are a prominent feature and should be considered carefully to blend with or complement the architectural style of the home.

Requirements and Recommendations:

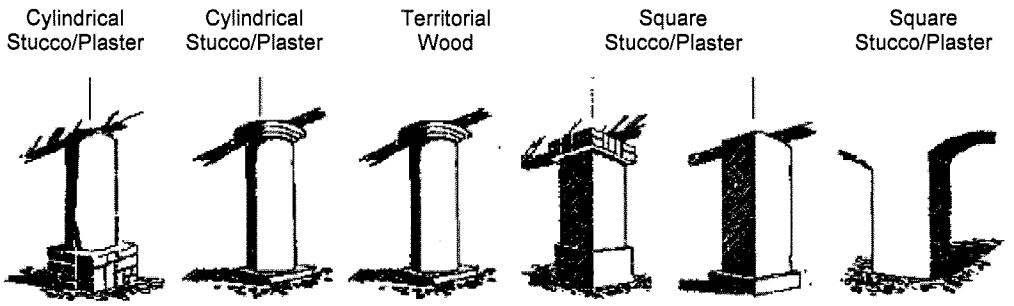
1. **Windows should be set deep into the walls to create a feeling of depth and massiveness, unless not appropriate for the architectural style of the home and as approved by the Founder.**
2. **Windows must be set back a minimum of two inches from the plain of the house, unless specifically authorized by the Founder.**
3. **Window with colored sashes or frames are appropriate, with Founder approval.**
4. **Un-anodized aluminum window frames or mullions may not be used at Mariposa. Clear and colored anodized aluminum window frames or mullions may be used for appropriate architectural styles with Founder approval.**
5. **Copper trim, if unsealed, or treated with a patina finish, may be approved.**
6. **Fabric, metal or plastic awnings, either fixed or retractable are inappropriate and may not be used at Mariposa.**
7. **Exterior retractable window and patio vertical screens may be used, but must blend with the color of the structure and be approved by the Founder in advance of instillation. No patterned materials are allowed.**
8. **No "pop out" window surrounds are allowed.**

COLUMNS AND ARCHES

Design Objective: Columns and arches should enhance and be appropriate for the architectural style selected. Attention to detail must be given without appearing unnecessarily ornamental. Columns and arches should provide a feeling of strength, depth and interest at windows and entries.

Columns

These examples of column forms ma y be used at Mariposa if appropriate to the architectural style of the house and if approved by the Founder.

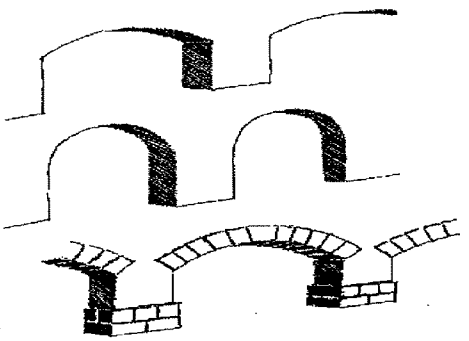


Requirements and Recommendations:

1. **Columns should be simple and integrate with the architectural style of the home.**
2. **These column materials are appropriate for use at Mariposa:**
    a) **Exposed wood**
    b) **Square stucco/plaster**
    c) **Rectangular stucco/plaster**
    d) **Cylindrical stucco/plaster**
3. **These column materials may be used with approval of the Founder:**
    a) **Stone**
    b) **Metal**
4. **These column materials/styles may not be used at Mariposa:**
    a) **Ornate Corinthian**
    b) **Ionic designs**
    c) **Siding Covered**
    d) **Tuscan**
    e) **Egyptian**
    f) **Gothic**
    g) **Ogee**

Arches

1. **These arches are appropriate for use at Mariposa for certain architectural styles:**
    a) **Massive**
    b) **Segmented**
    c) **Full arch**



Elevated Decks

Design Objective: Decks must be appropriate for the architectural style selected and materials and colors must be integrated with the style. Attention to detail must be given without appearing unnecessarily ornamental. Deck supports should provide a feeling of strength, depth and interest.

Requirements and Recommendations:

1. **Deck support columns must have visual strength and size to give the appearance of substance, unless hidden from view.**
2. **Second story or elevated decks shall be of materials and colors integral to the main building.**

3. Detail of the flashing and scuppers to handle drainage is subject to review. Sheet metal shall be coated with an approved method.
4. Undersides of decks should be finished. No exposed framing is allowed if visible from public view.
5. Deck lighting shall comply with Mariposa lighting standards in these guidelines.

SCREENS, SHADES AND ACCESSORY STRUCTURES

Requirements and Recommendations:

1. Overhead screens, shade covers, patio roofs, and other similar structures shall be constructed of materials and colors to match or complement the architectural style of the building and must be approved by the Founder.
2. Accessory structures, garages, storage buildings, gazebos, playhouses, cabanas, ramadas, equipment structures and enclosures, etc., shall be constructed of materials and colors to match or complement the architectural style of the residence and must be approved by the Founder.
3. The maximum height of an accessory structure, excluding accessory living quarters, cannot exceed 10 feet.
4. Any accessory structure must be located within the Private Areas of the Building Envelope.
5. Exterior retractable window and patio vertical screens are allowed, but must blend with the color of the structure and be approved by the Founder in advance of installation. No patterned materials are allowed.

PLAY STRUCTURES

Design Objective: Play Structures should be sized, located and screened to not interfere with the visual harmony and enjoyment of the community by other owners in Mariposa. Recreational opportunities in Private Spaces are important to families in the community. However, Play Structure size, material, color, location and screening should be carefully considered.

Requirements and Recommendations:

1. All play equipment must be submitted to and approved by the Founder prior to installation or construction.
2. All structural elements (permanent or temporary) must be located within the Private Areas.
3. Maximum height of 10 feet, measured the bottom of the structure to the top of the structure.
4. No moving parts are allowed, which are not integral to the function of the equipment. Prohibited items are, but are not limited to, flags, banners, pinwheels and horns.
5. No bright, or primary color will be allowed to dominate, or cover the majority of the play equipment/structure. Metallic and reflective colors (gold, silver, etc.) will not be allowed. Primary and bright colors may be used only as accents.
6. Muted, pastel and secondary colors are required for the dominant area on all play structures/equipment in order to minimize visual distraction. Colors should blend with the landscape.
7. To minimize the view and noise of play equipment landscape screening may be required by the Founder. No play structures or play equipment is allowed outside of Private Areas.

OUTDOOR ART AND SCULPTURE

Outdoor art or sculpture is allowed only with the approval of the Founder. Outdoor art or sculpture should be principally for the enjoyment of the owner and should be carefully integrated with the residence, site and landscape design to ensure it does not dominate or detract from the environment, or create a negative visual impact on surrounding areas. The Founder may require specific information when reviewing a request, including: photographs, drawings, materials, size, location, lighting, movable parts, or noise generation. Outdoor art and sculpture is not allowed outside the Private Areas, unless approved by the Founder.

PRESERVING AIR AND VISUAL QUALITY

The region is subject to thermal inversions, which can contribute to a degradation of air quality. Mariposa's goal is to maintain the highest standards of air quality. For this reason, certain provisions shall apply to the construction of fireplaces or solid fuel burning devices within Mariposa.

Requirements and Recommendations:

1. **Only one wood-burning fireplace is allowed per Lot.**
2. **No solid fuel-burning device shall be allowed to burn coal.**
3. **All wood burning fireplaces (interior and exterior) shall be equipped with a gas-starter device.**
4. **Natural gas fireplaces incapable of burning wood are exempt from these provisions including the limitation on number of fireplaces.**

SUSTAINABLE LIVING

Sustainable development is a concept defined by the United Nations Commission of the Environment as achieving stability of both physical and social systems by meeting the needs of current generations without compromising the ability of future generations to meet their needs.

Mariposa has fully embraced the concept of sustainable design and development. Therefore, significant effort has been made to reduce the Mariposa "footprint" on the land and the environment.

Sustainable living is a holistic philosophy that includes all aspects of design, function, construction and operations including but not limited to: resource conservation (water, land, energy and materials) daylighting, indoor air quality, recycling of construction materials and solid waste, and an ongoing philosophy and governance structure to insure that the vision of Mariposa is fulfilled and continues.

MARIPOSA COMMITMENT

While this document expresses Mariposa's commitment to the principles of sustainable design, this section is specifically directed to Sustainable Building & Living at Mariposa.

At Mariposa, sustainability means the application of design, construction and operating methods in a manner that will reduce the economic, cultural and environmental impacts of decision-making over the long-term. In order to ensure that this goal is achieved, these Standards and Guidelines for Sustainability have been created. These standards and guidelines far exceed the typical design guidelines written for more conventional real estate projects because they address aesthetic concerns as well as issues pertaining to water quality, energy conservation and environmental impacts, all of which have benefits that will be felt on a local, regional and global level.

Mariposa commits, in its own planning and development practices, to the implementation of many sustainable concepts including strict adherence to tree and shrub avoidance and removal standards, cultural preservation, open space management, solar orientation, surface water management, wastewater management, as well as sustainable construction techniques and approaches. A large percentage of Mariposa will remain undeveloped and habitats for wildlife will be encouraged through the development and enhancement of riparian areas and semi-permanent water sources where appropriate. Drainage channels will be a blend of developed areas and natural vegetation, wetlands and trail links where appropriate. In addition, reclamation of over-grazed land will be an important component.

A community based on the principles of conservation will yield improved quality of life and sustainability. Water harvesting and reuse will contribute to a continuing and plentiful supply of quality water. Buildings are sensitively sited within the landscape, with careful consideration of the use of lighting and construction standards and materials. An extensive network of trails and pedestrian connections encourages fewer automobile trips within the community. Energy conservation measures will have the largest impact over the life of the project.

BUILDER RECOGNITION

For the most part the ideas and goals set forth in this section are recommendations. However, the Founder strongly encourages incorporating these ideas into the design and construction of your home(s). The Founder has established a recognition program, in a public manner, those homes that meet, or exceed minimum sustainability standards of established Green Builder programs. These are established Green Building programs that follow the sustainable living philosophy and meet their objectives. The Founder strongly encourages and endorses the participation in these programs. These include the U. S. Department of Energy's Build America Program (WWW.BUILDINGAMERICA.GOV) and the Energy Star Program. Founder may add additional programs if appropriate.

Mariposa and the Founder will recognize those Builders meeting the minimum sustainability standards of the established Green Builder programs. These Builders will be authorized to use the Mariposa Sustainable Builder "tag line" in their advertising, marketing material and on any Builder signs in Mariposa. The Founder may have additional recognition programs and award systems set up at a later date.

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.

Mariposa seeks to become a model for efficient water use in this arid New Mexican environment. The guidelines for landscaping, building design and construction are conceived to minimize consumption.

Mariposa will continuously promote consciousness about conservation and use, to assure that the water needs of the community and the region are realized. As a significant part of the water conservation program at Mariposa, the Founder has built a "state of the art" wastewater treatment facility which creates a very high quality treated effluent that will be reused throughout the community for common area and park landscape irrigation. Thus, not depleting the aquifer to irrigate community landscaping.

Designing for Water Conservation

The integration of water conservation strategies require early research and analysis prior to design to ensure successful, cost effective integration of alternative water technologies that may require special permitting and/or variances, and that will require integration with other design issues and priorities.

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.

Requirements and Recommendations:

1. **No resident shall waste water or cause or permit the flow of waste or excess water onto adjacent property.**
2. **Gray water systems, systems that reuse wastewater (other than sewage wastewater) from the residence for landscape irrigation on the lot are encouraged.**
3. **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**

4. **No individual wells are allowed at Mariposa.**
5. **Irrigation systems must be designed so that peak summertime watering can be completed between the hours of 10pm and 6am.**

6. **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.**
7. **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 role 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.**
8. **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 summates this, based on the implementation of water conservation and reuse techniques.**
9. **Use of quality pipes, fittings and values for leak resistance. Also recommend testing, such as Zero-Read, for leaks.**

Pools and Water Features

(See Landscape Section of these guidelines)

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.

More information, including philosophy, Requirements and Recommendations can be found in the Site Planning Section of these guidelines.

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.**

LANDSCAPE IRRIGATION

Where landscape irrigation is needed, trickle or drip irrigation is required, except for turf areas. The frequent, low pressure application of small amounts of water to the soil area directly surrounding the plant roots maintains a constant level of soil moisture, even though up to 60% less water than conventional water is used. The efficiency and uniformity of a low water flow rate reduces evaporation, run-off, and deep percolation.

More information, including philosophy, requirements and recommendations can be found in the Landscape Section

ENERGY EFFICIENCY

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

General Strategy for Energy Efficiency

Energy efficient design starts with an understanding of climate and the use of strategies in the design appropriate to that climate.
There are several steps to designing a energy efficient building:

1. **Minimize energy loads**
2. **Utilize free energy**
3. **Use clean, efficient technologies**

Similar to "reduce, re-use and recycle," the steps to design a green building must happen in the order shown or the efforts may be counterproductive and more costly. Unless loads are first minimized, the free energy, such as passive solar gain, will not be sufficient for building demands and the clean technologies will be too expensive to incorporate.

The term "green design" has often been misunderstood and sometimes dismissed as too expensive or having too long a payback. By first reexamining what size mechanical system is really needed - and then reducing the thermal load - more efficient, effective buildings can be created with reduced construction costs and minimized operating expenses. The architect must develop a mutually challenging partnership with their mechanical engineer and work together from the onset to optimize the building's design.

Passive Solar Design

Passive solar design standards are intended to increase the energy efficiency of buildings by using the warmth from solar exposure during winter months and minimizing solar exposure and heat gain during summer months. Residential buildings should make use of passive solar design to increase the livability and comfort levels of interior and exterior spaces. This can be achieved through a combination of passive solar measures and techniques, including window placement.

Passive solar design is a simple system for capturing "free" solar heat and using it to minimize or eliminate heating needs in a building. Climatically, New Mexico is well suited for both passive solar and day lighting applications and both are encouraged for all structures in varying degrees at Mariposa. Passive solar systems do, however, have a large impact on building form, as proper solar design dictates orientation, window and fenestration design and interior material selection. Passive solar design should be considered at the beginning of the design process.

There are three major components of a passive solar design; proper solar orientation and an understanding of the sun's path, proper design of windows and thermal mass, and proper sun controls.

Solar Orientation

As with designing for Photovoltaic, passive solar buildings must be oriented properly towards the sun. In general, buildings that are elongated in the east west direction are favorable. Western exposures should be avoided, as shading is difficult. As with PV, it is allowable to have an orientation off of due south by about 15 degrees, although for passive solar design, a southeastern orientation is preferable over southwestern. For additional information on Solar Orientation refer to the Site Planning Section of these Guidelines.

Thermal Storage Mass

Building materials are generally thermally massive, insulative or conductive. Water, stone, concrete and brick are thermally massive materials that will "soak" heat.
An important component of passive solar design is the sizing of thermal mass in a building in direct proportion to the amount of glazing or collector area. Without adequate thermal mass, a building will overheat. Thermal mass soaks up solar radiation when there is excess heat. When heat is needed, such as at night, the thermal mass releases this heat to the space keeping it warm. A well-designed passive solar building will 'float' through periods of cold and warm weather due to the regulating influence of thermal mass.

As a general rule, if the south window area is greater than 8% of the total floor area, then thermal mass is needed to prevent overheating.

Requirements and Recommendations:

1. **A minimum of 3 - 6 SF of thermal mass for every square foot of south facing glazing.**
2. **More thermal mass means less temperature fluctuation**
3. **Appropriate thermal mass materials are stone, concrete, brick, tile and water. Water is the best thermal mass available and can be stored in tanks adjacent to windows. Thermal mass materials should be chosen that comply with the architectural guidelines set forth in this document.**
4. **Although the appropriate distributed mass required in an installation varies, a thin, broad spread of materials is usually more effective than a concentration of materials in a small area.**
5. **Ensure that there is a balanced distribution of mass throughout a given space.**
6. **Thermal mass should be located directly within the sun's path.**
7. **The ideal floor thickness for thermal mass is 4".**
8. **Wall Thickness: Storage wall thickness should be 2" to 4". Thickness greater than 4" will increase performance, although not a great deal. Performance can decrease at a thickness of 8" or greater.**
9. **Masonry floors should be a medium to dark color.**
10. **To optimize day lighting opportunities, thermal mass walls should be light colored.**
11. **There should be no wall-to-wall carpeting over thermal mass floors in a solar building.**
12. **40% of the glazing must be oriented within 15Þ of due south.**
13. **Use clerestory windows for additional solar gain. Clerestories should be placed in front of the thermal mass walls at a distance of 1.0 to 1.5 times the height of the clerestory wall.**

Sun Controls

Sun controls admit sun when it is wanted and block the sun when it is not wanted. In general, all summer sun (which is high in the sky) should be blocked and lower angle winter sun (from the south) should be admitted. Exterior shades can be utilized for effective sun control, and an understanding of the local climate is necessary to adequately design sunshades. A good rule of thumb for solar shading in the greater Albuquerque region is to provide adequate shading to block the September sun at noon. A sun angle calculator can help in determining the altitude of the sun in New Mexico. During September, the noon sun is at an altitude of X. Well-designed shading devices can greatly reduce cooling loads in a building and have a short payback period.

Sun controls on the south side of the building are relatively easy to incorporate with the use of overhangs, trellises or sun shading devices. It is beyond the scope of this document to provide detailed information on designing sunshade. Shading devices such as trellises can be useful to admit daylight while blocking solar gain. Deciduous vines that block summer sun while permitting winter sun can also be advantageous. Coniferous trees avoided.

Sun controls on the north side of buildings are usually not important, however, the summer sun can cause heat gain and glare problems on the north side of a building and, in this case, vertical fins can be used to shade the windows.

East facing windows can often be useful for early morning building warm-up provided that the glare is acceptable. In general, east windows should be minimized.
West facing windows are difficult to shade and can cause day lighting and heat gain problems in both winter and summer. Often the best way to shade west glazing is to use coniferous vegetation to block all direct gain.

Do not rely only on interior window blinds for sun control. While window blinds have some effect, as a portion of the sunlight is reflected out the windows, the majority of the "heat" has already entered the space causing the space to overheat.

Types of Passive Solar Systems

There are three major types of Passive Solar Systems:

Direct Gain

This is the simplest type of passive solar strategy, which admits sunlight directly through a window to thermal storage (usually a concrete floor). This system will be used extensively at Mariposa in all building types

Attached Sunspace

Attached sunspaces may be appropriate for essentially it is a greenhouse space on the south side of the building that is allowed to heat up in the winter sun. This heat can then be vented, or allowed to radiate through a thermal mass wall, into the building.

Trombe Wall

The trombe wall system consists of a thermal storage wall between the space to be heated and south facing glazing. Sunlight passes through the glazing and heats the thermal mass that in turn heats the space. The rate of heat flow through the wall depends on the materials and thickness of the wall. In general, masonry storage walls delay the transfer of heat from the sunny side of the wall to the room by several hours. Water storage walls transfer the heat much more rapidly because they work by convection as well as conduction. Unlike water walls, masonry storage walls can be used as bearing walls and because of their mass, make good acoustical barriers.

Photovoltaic Technology

Photovoltaic and solar thermal panels need to be designed to fit within the architectural guidelines like other mechanical equipment. Photovoltaic Technology (PV) directly convert sunlight into electricity without pollution. Solar thermal panels, which convert the sun's heat to hot water, may also be used at Mariposa. The following guidelines illustrate how buildings will comply with the requirements of photovoltaic or solar thermal panels.

Photovoltaic panels are now available that can serve as a building membrane and surface material as well as an electricity generation device. These new panels are no longer installed on top of a built-up or metal roof but instead are part of the roof system - integral to the architecture, mimicking metal roofs or even shingles, and allowing for integration into the architectural character of the region. Transparent solar panels that can be used as skylights or windows are also available. They can admit daylight into a space while generating electricity.

To design for PV and solar thermal panels, buildings need to be oriented toward the sun at the proper angle. For maximum potential, panels or roof structures should be oriented due south. If this is not possible due to site constraints, it is allowable to move away from the ideal orientation by about 15 degrees, which will result in a small but acceptable loss in efficiency.

The second component for successful solar array design is the slope or solar angle of the array. Typically, for maximum year-round gain in a fixed solar array, the panels should be oriented at the same angle as the latitude (36 degrees) of Mariposa. However, because of the high summer loads at Mariposa (see diagram), it is necessary to optimize the electricity generation capacity in the summer, which will mean a slope of 21 degrees. The acceptable range therefore, is between 36 and 21 degrees, although it is recommended for ease of construction to use standard roof pitch in this range.

Requirements and Recommendations:

1. **Most buildings at Mariposa should have at least 50% of their roof area within 15 degrees of true south and within the acceptable solar angle range.**
2. **No building protrusions such as chimneys, water towers or cooling towers may shade the solar panels at any time.**
3. **No buildings may shade the solar aperture of another building. New building design must prove that it is not negatively impacting the solar potential of an existing structure. Designers must also take into consideration the potential of landscape features and tall trees that will shade solar panels.**
4. **The installation and use of solar panels and solar energy is strongly encouraged.**
5. **Solar Panels can be installed on the roof and are most efficient if located to receive the south and west sun.**
6. **Solar Panels may only be installed on the flat portion of any roof and must be screened by parapets.**

Day lighting

A process of efficiently capturing the available light from the sun to illuminate the interior space. This process will reduce dependence on non-renewable energy sources.

Daylight provides the most pleasing, efficient and inexpensive source of lighting available. Day lighting design is one of the most effective ways to reduce the energy requirements of a building and produces the most amount of light to the least amount of heat. All buildings at Mariposa should include good day lighting design as an integral part of the architectural design.

Day lighting is a free source of energy and can significantly reduce the operating costs of buildings and provides high quality light with even distribution. Many of the buildings at Mariposa are day use only facilities and daylight can provide most of the light during operation. Good day lighting design does not mean simply increasing the amount of available light in a space with larger and more windows which may, in fact, increase glare and increase electric lighting loads needed to offset the glare.

Glare arises from a great amount of contrast, which can distract the eye and cause visual discomfort. Good day lighting design successfully controls the amount and distribution of light for maximum visual comfort.

Requirements and Recommendations:

1. **The amount of glazing to floor area for a properly daylight space is 30-40% window-wall ratio (depending on climate).**
2. **Elongate buildings east/west wherever possible to maximize south and north glazing (daylight easily controlled) and to minimize west glazing that can cause excessive glare and heat gain**
3. **Use sun control devices such as overhangs, sunshades (can incorporate PV), trellises (with deciduous vegetation) or awnings to control glare and heat gain.**
4. **Integrate day lighting design into the building design from the outset.**
5. **Arrange buildings so that major interior spaces have access to natural light and seldom used spaces have less access to light. Design interior layout to minimize obstructions within a space that could diminish daylight potential.**
6. **Design interior spaces to receive natural light when needed, i.e. east-facing bedroom to receive morning light and west facing dining room for evening light.**
7. **Use light colored surfaces for interior finishes to reflect light and increase the perceived brightness of the room.**
8. **Design spaces that are within the effective daylight penetration depth (D). Daylight penetration depth is the distance into the interior of a building at which natural light from the sun can provide adequate illumination. This can be calculated by measuring:**

   D = 1.5 H (height of window) for typical window conditions.
   D = 2H for light shelves.

9. **Make the distinction between view windows and day lighting windows. Day lighting windows can be located above the field of vision to let light deep into a space. These clerestory windows may allow for reduced window area to increase energy efficiency.**
10. **Select glazing carefully. Glazing is available with a variety of coatings and qualities. For day lighting, the VLT (visible light transmittance) should be carefully reviewed. Visible light transmittance measures the efficiency of glazing in passing light rays within the visible spectrum. A window with a high visible light transmittance should be selected for windows designed to admit daylight. On west facing windows, or in areas where excessive glare might be a problem, a lower VLT may be desirable (see diagram on choosing glazing). Standard double pane glazing has a visible light transmittance of 80% with low-e 70% VLT.**
11. **The higher the window, the deeper the day lighting zone.**
12. **Avoid large expanses of glass without sun controls.**
13. **Size windows and select glazing at the same time. The larger the window, the lower the visible light transmittance that may be needed. Use the effective aperture approach illustrated below.**
14. **To maximize daylight potential, encourage higher ceilings or eliminate traditional hung ceilings and expose the building structure.**
15. **North light is often high quality and consistent with minimal heat gain. Balance size of north windows (due to thermal loss) with desire for daylight.**
16. **South light has strong illumination and is easily controlled.**

17. West and east light allows heat gain and is difficult to control.
18. Do not "waste" glazing where it does not contribute to day lighting or view; i.e. do not place glazing below desk height, unless it is required for passive solar gain.
19. Consider using clear glass above light shelves and tinted glass below to shade glare. The ceiling (and top of the light shelf) should be smooth and light colored, and the top of the light shelf should not be visible from anywhere in the room.
20. Ceiling reflectance should be 80%, for walls 50-70%, floors 20-40%, and furniture 25-45%.
21. Choose matte finishes on walls and ceilings to reduce hot spots or glare.
22. Be aware of site factors that could affect daylight. Light may be reflected off adjacent buildings or surfaces to increase the amount of light in a space. Similarly, trees or buildings might shade and reduce day lighting potential. Plan landscaping accordingly. All buildings at Mariposa must demonstrate that they are not reducing the potential of other structures beyond what is reasonable.
23. When deeper building sections are necessary, consider the use of top lighting devices to introduce daylight. Remember that top lighting can produce glare on room surfaces but not generally in the field of vision, while side lighting tends to produce glare in the field of vision but not on surfaces.
24. Arrange tasks within a space so that those that require the most light (such as workspaces) are located at the periphery and those that require the least light (such as corridors) are located away from the periphery.
25. Where appropriate, include the use of light shelves in the design of structures. Light shelves are horizontal projections with both exterior and interior components that shade exterior glaring, bounce light to the interior ceilings of buildings thus increasing the effective depth of daylight while reducing glare within the space. Glare is caused by excessive contrast and well-designed light shelves block the view of the skydome from within the space, (which is a major source of glare), and reflect light to the ceiling diffusely lighting the space wherever possible encourage light from more than one side of a room, to improve quality of light. Sun controls are an important factor in this strategy.
26. Design rooms that have adequate daylight for the tasks required. Daylight can be expressed as a percentage known as the daylight factor. Most tasks at Mariposa need only about 1.5-2.5% DF. More strenuous tasks may require a DF of up to 4%.

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, however, 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

Requirements and Recommendations:

1. **Avoid thermal bridging of materials, which can greatly affect building performance.**
2. **Minimize air infiltration through the proper sealing of joints and the use of air-lock entryways.**
3. **Design for proper placement of and vapor barrier where cool surfaces meet warm moist air.**
4. **When using light frame construction, consider advanced framing techniques that insulate corners and headers while saving wood.**
5. **Use radiant heat barriers to increase energy efficiency.**
6. **Use light colored roofing material where appropriate to reduce cooling loads.**
7. **To increase energy efficiency, use landscape, vegetation or architectural devices to shield building from winter wind, and summer sun.**
8. **Avoid ductwork on the exterior walls.**
9. **Seal ducts and returns with mastic or UL181 tape, not cloth-backed taped.**
10. **Caulk and foam all plumbing and electrical penetrations before drywall is installed.**
11. **Caulk, foam, tape and weather seal around all joints of the envelope to create a tight, advanced sealing package.**
12. **Install efficient, ENERGY STAR-rated furnaces.**
13. **Install a "flashing pan" under each window.**

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. Many architects select the same glazing for all areas of a building despite differing conditions. As noted in the day lighting section, all glazing is not created equal and there are many different factors to consider in choosing the appropriate type. Glazing should be selected based on several criteria among them energy performance, daylight contribution, architectural integration, occupant comfort and cost. Section 6, Architecture, addresses the aesthetic treatment of windows and specific material selection.

Requirements and Recommendations:

1. **Examine all glazing properties and match with need for daylight, view and thermal characteristics.**
2. **When maximum daylight is required, a high Visible Light Transmittance (VLT) is desirable. When glare is a problem, a lower VLT is appropriate. A VLT of 50–70 is a good starting point for moderate glare control.**
3. **Solar heat gain coefficient describes the fraction of solar radiation admitted through a window or skylight that increases heat gain.**
4. **Specifying glass with a high solar heat gain coefficient (SHGC) where appropriate. To block solar gain, as on west and south sides of buildings, choose a low SHGC. It is important to remember that the SHGC can greatly affect cooling loads in the summer if glazing is unshaded.**

5. U-value is a measure of heat transfer through the window and is the inverse of the R-value (resistance to heat loss). A lower U-value means a more energy efficient window, as opposed to the R-value where higher is better. Windows at Mariposa in all structures should be double paned with a low-e coating. In some buildings, the space between the two glass panes can be gas filled, or a system with three panes of glass may be specified to increase efficiency. Window performance is often measured as either a center glass value or total unit value. Center of glass ratings are usually lower than total unit value, which takes into account the effect of the frame and mullions.
6. UV transmittance indicates the percentage of ultraviolet light that penetrates a window. UV contributes to the fading of carpets, fabrics and paintings and should be considered depending on the location of windows.
7. Spectral selectivity refers to the ability of the glazing to respond to different wavelengths of light - admitting, for example, visible light while blocking infrared. Glazing that is good at blocking heat (low SHGC) yet has a high VLT is usually spectrally selective.
8. Do not assume that dark glass is good at blocking solar gain -- that is not always the case.
9. West and east facing glazing should be selected to block solar gain and glare.
10. North glazing - Aim for high VLT and low U-values. SHGC is not a factor.
11. South glazing - Provide proper sun control and aim for high VLT and moderate to high SHGC depending on passive solar strategy.
12. Be aware that glazing color strongly affects the color of an interior and affects the color temperature of interior lighting.
13. The lower the VLT, the darker the interior and the view to the outside.
14. R-values for roof, wall and floor to comply with Mariposa requirements.

Efficient HVAC Design

These guidelines do not go into great detail on mechanical systems design, however suggestions for efficient and effective design are included below. In general, all the strategies outlined in this section will help to reduce mechanical loads significantly. (Be wary of the tendency of mechanical designers to over design the system by including large safety factors that compound to produce unreasonably over scaled systems).

Requirements and Recommendations:

1. Use separate HVAC systems to serve areas that have greatly different use schedules or loads.
2. Provide controls that allow systems to operate in occupied and unoccupied modes.
3. Ducts should be larger than minimal size to reduce pressure and fan size.
4. Expand the allowable occupant comfort zone depending on use.
5. Use high efficiency heating and cooling equipment, pumps and motors. Use premium efficiency motors for all over one horsepower.
6. Primary heating equipment should be sized for the 97% design temperature values. Size primary heating equipment for the 97% design temperature radius and no greater with a target load safety factor of no more than 10% and a heating pick up factor of less than 30%.

7. **Include define high efficiency boilers and supply water temperature reset.**
8. **Design mechanical equipment to maximize the efficiency of distribution.**
9. **Size transformers and generating units as close to the actual anticipated load as possible.**
10. **Minimize the cooling tonnage of a building through rightsizing of equipment.**
11. **Install units with an Energy Star rating.**

Passive Cooling & Ventilation

Sustainable design starts with a good understanding of climate. Warm arid summers and cool winters characterize the Middle Rio Grande region of New Mexico. Many passive strategies are particularly effective in this climate. This is particularly true for passive cooling strategies, many of which are optimal for the climate of the area. The key to understanding passive cooling techniques is understanding how air moves - from high pressure to low pressure and from warm to cold - and how wind and air can be harnessed for cooling.

Passive cooling is a means of ventilation that has the potential to reduce or eliminate the need for mechanical systems such as fans or air conditioning. As passive cooling strategies have the potential to alter form in a building they must be considered early in the design process to work successfully. The ability to cool is dependent on a good thermal envelope, thermal mass, and occupancy co-operation in many cases. The primary function of natural ventilation is to prevent heat build-up inside the building and to provide air movement.

The first step in an effective passive cooling scheme is to block solar gain (Blocking the sun's heat before it hits the building is the best way to reduce solar heat gain. The required roof materials at Mariposa are a light color to reflect heat. West walls are targets for intense heat absorption and should be shaded by planting or other means and have reduced glazing area. Roof overhangs at south and west walls should be deep enough to prevent the sun from entering a room during the summer months. The principles for building orientation and building form are equally important for cooling as it is for heating. Buildings should be elongated east west wherever possible with adequate sun controls. Thin section buildings that are good for day lighting usually work well for passive cooling and passive heating. The large amounts of thermal mass required for passive heating is also beneficial for summer cooling.

Cross Ventilation

Cross ventilation is the simplest form of passive cooling, consisting mainly of allowing breezes to flow from one window or opening through a space and out another opening across the space on the leeward side of the building.

Moving air makes warm temperatures seem cooler by quickly removing heat from our bodies. By utilizing passive ventilation, the need for air conditioning is decreased, relying only on good design and natural breezes for cooling.

Requirements and Recommendations:

1. **Operable windows and vents, placed opposite each other and at different heights, capture natural breezes and improve air circulation and quality. Intake openings should be placed low on the windward wall, while larger; exhaust openings should be set high on**

the leeward wall. To capture cool intake air, windward openings should be well shaded by plants or shade structures.

2. **Cross ventilation works best when outside temperatures are below or around the comfort zone. When buildings overheat due to occupants, electric lights, equipment and solar radiation through the building envelope, cross ventilation can be used. When the outside temperature is above the comfort zone, cross ventilation is less effective as warmer air is being introduced into the system.**
3. **If properly directed, natural air movement will enhance ventilation and provide convective and evaporative cooling. By manipulating the orientation and design of buildings breezes can be directed through interior spaces.**
4. **Shape and orient the building to maximize exposure to summer breezes. Size inlet and outlets for summer breezes; typically equal size or slightly larger outlet.**
5. **Typically the inlet is low and the outlet is high.**
6. **Design open plan interiors for good indoor airflow**
7. **Orient door and window openings to enhance the cross ventilation effect, and utilize louvers to direct air toward occupants.**
8. **Use wing walls, overhangs and louvers to direct wind flow into a space. Ceiling fans do a good job of efficiently moving air. Using a ceiling fan along with natural ventilation will help reduce the use the homes cooling system. A ceiling fan should have a minimum clearance of 10 inches between the ceiling and the fan to provide ventilation in a room with an 8-foot ceiling. There is a formula for the size of the fan (dimensions) to the area of the room that should be followed for efficiency.**

Stack Ventilation Strategies

In a building cooled by stack ventilation, warm air rises, exits through openings at the top of the building, and is replaced by cooler air entering low in the building. The rate at which the air moves through the room, carrying heat with it, is a function of the vertical distance between the inlets and outlets, their size, and the difference between the outside temperature and the average inside temperature over the height of the room

Requirements and Recommendations:

1. **Design building forms to accelerate breezes to draw warm air out of a building. As air moves over the building it speeds up and provides lift or suction that can be harnessed to draw warm air over the building creating negative suction zones to enhance the stack effect.**
2. **Passive solar thermal chimneys are being incorporated into buildings with increasing frequency. Use dark surfaces at the top of the tower to create a solar chimney designed solely for the purpose of ventilation. The enclosed space of the chimney, set high in the house, heats up, drawing a steady stream of cooler air in from the lower windows or vents. Because of the thermal mass incorporated in the chimney, the system continues to work through the night.**

INDOOR ENVIROMENTAL QUALITY (IEQ)

A commitment should be made to promote a good indoor environmental quality for better health and comfortability of the homes residents. There are five important aspects to IEQ: Indoor Air Quality, Humidity, Air Movement (discussed previously) , Acoustics and Light Intensity and Quality.

Indoor Air Quality (IAQ)

Requirements and Recommendations:

1. **To ensure good indoor air quality full commissioning of the HVACV system is necessary (see below) as well as the provision of ventilation where and when it is needed. Proper cleaning and filtration of contaminants in the air supply is also necessary.**
2. **Use manufactured wood product alternatives to formaldehyde-based adhesives, such as exterior-grade plywood with phenol formaldehyde and other types of manufactured wood made with formaldehyde-free resins.**
3. **Use direct-vent furnaces. Non-direct furnaces have the potential to back draft or other wise leak carbon monoxide.**
4. **Install a ventilation system, which will have a infiltration rate of .35 air changes per hour (ACH) of less.**
5. **Attached garages can be great sources of indoor air pollutants from vehicles, lawn equipment, stored paints, solvents and other household chemicals. Consider a detached garage or installation of a garage fan.**
6. **Consider installation of a central vacuum system with outside exhaust to prevent the release of small particles back into the home.**
7. **Use low to no Volatile Organic Compound (VOC) interior paint products and water based wood finishes.**
8. **Use plaster finishes of natural materials such as clay.**
9. **Use formaldehyde-free recycled-content fiberglass insulation or CFC-free spray foam insulation.**
10. **Building Commissioning is a process that begins after the building is complete and prior to occupancy to confirm that building elements, such as mechanical systems, were built and installed as designed. During commissioning, systems can be fine-tuned to achieve optimal performance. Commissioning insures the delivery of an environmentally balanced building and involves transferring knowledge to the building users so they understand and can mange the systems to maximize efficiency and durability.**

Humidity

Ventilation, which was discussed previously, and indoor moisture control are key components for good air quality. Most tightly built new homes have enough water-generated activities to add humidity to the home, in dry conditions like Mariposa humidification may be necessary.

Acoustics

An overlooked element of good indoor environmental quality is the acoustics isolation between rooms of a home.

Requirements and Recommendations:

1. **Avoid air leakage through doorways, around electrical outlets and under the wall sill plate.**
2. **Avoid conduction thru walls by hanging the gypsum board on one side of the all on acoustical channels or use separate studs for each side of the wall. Inserting cellulose or fiberglass with the wall can also be used.**
3. **Avoid transmission of sound thru the floors by inserting impact-absorbing layers under the flooring.**
4. **Adding sound rooms, which are carefully engineered, to keep sounds for being transmitted through out the house. These sound rooms are usually used for stereo or video presentations, i.e. home theater.**
5. **Reduce sound thru ductwork by lining with an acoustical duct liner.**
6. **Place air conditioning or evaporative cooler units to avoid sound sensitive areas like bedrooms.**
7. **Installing energy efficient higher cost appliances such as dishwashers and refrigerators, which tend to be quieter.**

Light Intensity and Quality

Energy efficiency and day lighting were discussed previously in this section. The intensity and quality of lighting have an affect on the indoor environmental quality of a home.

Requirements and Recommendations:

1. **Over lighting areas is both unpleasant and a waste of energy. Should have low background lighting and place lighting sources such as lamps in areas where more intense light is required, such as work or reading areas.**
2. **Install light controls to allow selected lights to be dimmed or turned off in areas such as eating areas which require more light during food preparation but less when eating.**

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 Riastra, 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 mteraisl 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.

Requirements and Recommendations:

1. **Mariposa will be creating a recycling center or area, which all builders will be required to participate.**
2. **Any excess materials should be taken to this center or reused on site.**

3. For foundations consider using concrete containing recycled waste such as fly ash or aggregate, autoclaved cellular concrete (ACC), or insulating concrete forms (ICF). All contain recycled materials or require fewer materials to produce the product.
4. For walls and floors, consider using engineered lumber, light gauge steel framing, structural insulated panels (for roofs and walls) and insulating concrete forms (ICF). Some contain recycled materials while others are more energy efficient.
5. Incorporate the use of engineered wood trim and recycled plastic lumber into the house design.
6. Use low Volatile Organic Compound (VOC) materials such as caulk, sealant, glue, tape and other related products.
7. Use insulation types that either contain recycled materials or have a very high R-value.
8. For finishes, use low or no VOC paints, low VOC water based wood finishes, natural paint or finishes such as clay.
9. The Carpet and Rug Institute has established a Green Label testing program to set standards for Low VOC materials used to produce carpets, cushions and adhesives. Install carpets that only meet or exceed these standards.
10. Install carpets and cushions that contain recycled materials.
11. Install long lasting and sustainable flooring such as cork, natural linoleum or bamboo.

FINAL NOTE

Again, while many of these items and issues discussed, are suggestions and recommendations, not requirements, the Founder strongly encourages every Developer/Builder and Owner to incorporate as many as they can into the construction of their homes.

Green building is more than just selecting a few materials or techniques to use. It is a whole system approach. One of the keys to green building is evaluating each step in balance with all the considerations and techniques.

RESIDENTIAL STRUCTURED WIRING

To assure that residents of Mariposa always have access to the latest communication technology, High Desert Investment Corporation, the master developer of Mariposa, referred to as Founder in these guidelines, plans to have an optical fiber-to-the-home (FTTH) network installed to every home in the community. This opportunity is unique in the region and will help distinguish the community from others. The FTTH network will deliver high-speed broadband Internet connectivity, digital-quality and HDTV cable television, as well as local and long distance telephone services. The FTTH network will insure the communication needs of Mariposa are "future proofed." To make sure that Mariposa residents are positioned to take full advantage of this latest technology it is required that each residence be wired to meet certain minimum specifications. The Structured Wiring Specifications are set-forth in this section of the Guidelines.

INTRODUCTION

In order to take maximum advantage of the FTTH telecommunications architecture HDIC has developed a residential structured wiring specification that must be adhered to by all property owners and homebuilders.

This specification does not represent a change to residential structured wiring, however it does require the installation of specific types of cable and hardware that will support the types of services to be delivered to each and every resident. An accomplished low-voltage structured wiring contractor licensed by the Construction and Industries Division of the State of New Mexico shall complete all wiring.

This section should be self-explanatory and includes the types of cabling and hardware to be used. Equivalent products are acceptable; however they must meet the technical standards. In all cases, a single manufacturer's product shall be used throughout an individual residential installation.

RESIDENTIAL STRUCTURED WIRING SPECIFICATION

Scope

This document describes the products and execution requirements relating to furnishing and installing Telecommunications Cabling for all homes constructed in Mariposa.

The Outlet Cabling System of each residential unit is based on the installation of (2) 4-pair Unshielded Twisted Pair (UTP) DATA (Enhanced Category 5-e rated) Copper Cables and (1) coaxial cable (RG-6 / series 6).

The Structured Wiring Distribution Center is based on the installation of an enclosure equipped with punch down telephone modules, patching modules with cables, and passive video splitter/combiner.

Jacks and connectors are based on the installation of Cat 5e RJ45 connectors, F-connectors, and appropriate wall plates.

Installation of one 1 ¼" underground conduit with pull wire from the outside telecommunications demarcation point located adjacent to the power meter to the closest curbside telecommunications connection point.

Installation of one 1 ¼" flexible conduit with pull wire from the telecommunications demarcation point to the structured wiring distribution center.

Installation of a 110-volt 2-gang AC power outlet located 4" below the structured wiring distribution center.

The electrical contractor must ground the Structured Wiring Distribution Center with standard gauge grounding wire, in accordance with National Electric Code or superseding local codes.

The work to be included under this specification consists of furnishing all labor, equipment, materials, and supplies and performing all operations necessary to complete the installation of a complete residential structured wiring system. The builder will provide and install all of the required material to form a complete system.

Regulatory References

All work and materials shall conform in every detail to the rules and requirements of the National Fire Protection Association, the local Electrical Code and present manufacturing standards.

All materials shall be listed by UL and shall bear the UL label. If UL has no published standards for a particular item, then other national independent testing standards shall apply and such items shall bear those labels. Where UL has an applicable system listing and label, the entire system shall be so labeled.

The cabling system described is derived from **ANSI/TIA/EIA-570-A** Residential Telecommunications Cabling Standards

This document does not replace any code, either partially or wholly. The builder must be aware of local codes that may impact this project.

Pre-Wire Specifications

1. **All wires must be homerun, video and telephone from wall plates to the structured wiring distribution center per the TIA-570 wiring specification.**
2. **Mud rings to be installed at same height as boxes for duplex receptacles.**
3. **Mud ring for wall phone outlet to be installed 52" off of floor.**
4. **Cable holes in studs and joists must be drilled to at least 1" in diameter. Appropriate size grommets must be used in all metal stud applications to prevent cable damage.**
5. **Both ends of cables must be tagged and identified. Leave 16 inches of excess cable in enclosure for each cable run.**
6. **DO NOT EXCEED MAXIMUM BEND RADIUS OF 3" FOR CAT 5e & coaxial cables.**
7. **DO NOT EXCEED 25lbs OF PULLING FORCE to avoid compromising the integrity of the cable.**
8. **Use plastic cable straps and cable staples – DO NOT USE METAL CABLE STAPLES OR STAPLE GUNS.**
9. **Roll all cable runs, not compromising the 3" rule, and secure to mud-ring.**
10. **In order to support the quality and integrity of the "structured wiring system", the Cat5e and RG-6 cables need to be installed at least one stud cavity away from power wires. When the low voltage wiring needs to cross a power cable, it should do so at a right angle to minimize interference.**

Structured Wiring Distribution Center

Each residential unit will have a Structured Wiring Distribution Center. The distribution device must be 14 ¼" wide, at least 4" deep and 20" high to accommodate all of the cables and panels required. The distribution center shall provide a central distribution point and be able to support voice, data, and cable TV and shall:

1. **The Structured Wiring Distribution Center enclosure is to be recessed on center of 16" studs.**
2. **Bottom edge to be 60" above floor.**
3. **Grommets must be installed in panel to prevent cable damage.**
4. **Install (1) single-gang mud ring in the same stud bay as the enclosure. Mounting height should be 4" below the enclosure.**
5. **Have a knock out to accommodate AC power requirements.**
6. **Coaxial cables must be routed through the enclosure's (2) right top cable entry holes, CAT 5e cables to be routed through the top left cable entry holes.**
7. **Include an incoming service panel for service termination.**
8. **Include a voice & data panel for distribution of outgoing services for bridged (voice) and non-bridged (data) connections.**
9. **Have internal mounting hole pattern that is universal such that modules with size multiple of 1.75" (as per EIA/TIA 310D standard) may be mounted.**
10. **Be mountable in a standard stud cavity (16" on center) or surface mountable.**
11. **Have cable entry holes top and bottom.**
12. **Have mounting depth guides for proper drywall alignment.**
13. **Be constructed of 20-gage steel for overall rigidity.**
14. **Have extensive use of internal slots for hook & loop and /or cable ties for optimum cable and wire management.**
15. **Have snap-in cable bushings to protect twisted pair, coaxial and fiber optic cables.**
16. **Have an oversized cover to cover up any sheetrock imperfections or rough edges.**
17. **Have an easily removable cover, for access to internal components.**
18. **Be lockable to provide a secure environment for internal components.**
19. **Meet UL requirements for low voltage distribution centers.**
20. **Be manufactured by an ISO 9001 registered company.**
21. **The Structured Wiring Distribution Center shall be a maximum of 300 feet away from the telecommunications demarcation point adjacent to the power meter box on the outside of the house.**

Equivalent Products

All products selected by the builder for installation, including but not limited to enclosures, faceplates, jacks, panels, racks, cabinets, patch cords and modules, for the purpose of this document shall be from a single manufacturer to insure the integrity of the residential structured wiring system specific to each residential unit. The same manufacturers Cat 5e wiring and RG 6 coaxial cable shall be used throughout each residential unit.

FURTHER INSTRUCTIONS REGARDING LOW-VOLTAGE/COMMUNICATION PREWIRING ACTIVITIES IN MARIPOSA

Addendum to Mariposa "Residential Structured Wiring" specifications, the contents of which are included in the "Mariposa Guidelines for Neighborhood Builder Homes" and the "Mariposa Guidelines for Estate and Highland Lots"

Garage/Exterior

1. **LMG (Last Mile Gateway) will be mounted on the exterior of the structure, adjacent to the lozier and at a level immediately below the home's power meter. (Purchased and installed by CableOne)**
2. **Service lateral – conduit and associated fiber optics wiring from the home's utility easement to the LMG. (CableOne)**
3. **2-gang mud ring mounted on the interior of the garage directly behind and below the anticipated location of the externally mounted LMG. (Electrician)**
4. **¾" sleeve penetrating the outside wall and accessible through the 2-gang mud ring identified above. (Electrician)**
5. **120VAC electrical outlet to be mounted on the interior garage wall and in near proximity (within 21") of the 2-gang mud ring. Where possible, this outlet will be GFI exempted. (Electrician)**
6. **LPSU (Low Voltage Power Supply Unit) will be mounted on the interior of the garage wall near the electrician supplied 120VAC outlet identified above. Low voltage (24VDC) wiring will be surface mounted on the interior of the garage wall from the LPSU to the mud ring, through the sleeve and connected to the LMG. A transformer will be inserted in the 120VAC outlet and low voltage wiring surface mounted to the LPSU. (CableOne)**

Internal/Service Center

1. **Flush Mount Service Center (SC) enclosure of a size not less than 14"Wx24"Hx3 1/2"D to be mounted in a location mutually agreeable to electrician and builder. The location is to be roughly in the center of the home to maximize coverage by any wireless technology that might be deployed by homeowner. (Electrician)**
2. **Conduit of at least 1 ¼" diameter to be routed from the SC and terminated immediately above and accessible through the 2-gang mud ring specified above. Conduit to include a pull-string to facilitate the routing of wires during installation of low-voltage/communications services. (Electrician)**
3. **1 (one) 120VAC electrical outlet mounted inside the SC, when practical, otherwise located 4" below SC. (Electrician)**

Prewire/Miscellaneous

1. **Prewire coaxial cable to be not less than RG-6, with no less than 90% braid coverage. (Electrician)**
2. **Prewire data/phone cables to be of Enhanced Category 5e rated. (Electrician)**
3. **Termination of all cables at outlets and SC. (CableOne)**
4. **Minimum bending radii of 3" for both coaxial and data cables must be maintained. (Electrician/Cable One)**
5. **Due to the nature of coaxial cable and the need to maintain the impedance (roundness) of the cable, traditional electrical romex staples are prohibited. Instead, clips manufactured for the specific purpose of securing coaxial cable, or equivalent, are to be used (for example model #TA-11HPP available through Arris/Telewire). The clipping of coaxial cables is to be minimized at all times.**

6. **Single gang mudrings of appropriate depth are to be used in lieu of electrical boxes at all outlet locations. Mudrings provide sufficient space for the achievement of the bending radius of communications cables. (Electrician)**
7. **A single clip is to be placed immediately inside the mudring to secure the wires during construction. This clip is to be placed to afford easy removal by the CableOne technician at the time of installation. Any other clips within the stud bay are discouraged and should be placed only to the satisfaction of the electrical inspector. (Electrician)**

This document is intended to support and not replace the structured wiring specifications listed above and when the tasks herein are enacted to prevent unnecessary external wiring upon completion of the home and to insure the availability of services to the homeowner post-construction.

All questions or comments should be directed to either
Gary McDonald, General Manager CableOne (505) 892-6260
or
Ernie Spicer, Technical Operations Manager CableOne (505) 892-5114 ext. 7100

PROCEDURES FOR PLAN REVIEW

In order to assist each Owner in the planning and designing of his/her residence and to take full advantage of the unique opportunities of their Lot, and to help insure compliance with these guidelines, a comprehensive design review process administered by the Founder has been established.

The Founder has exclusive jurisdiction over all residential construction in Mariposa and requires compliance with these guidelines.

DESIGN REVIEW PROCEDURES

The design review process was developed to provide adequate checkpoints to minimize time and money spent on residential designs, which may not adhere to the Guidelines, or to the overall philosophy of Mariposa and to guide and educate Owners and Builders relating to the Guidelines and the philosophy through the design review process. Thus, helping insure that all projects comply with the philosophy and Guidelines.

This process has been structured to eliminate delays. Nevertheless, each Owner is responsible for complying with the Guidelines and all other applicable provisions of the Mariposa Charter, as well as all the rules and regulations of any governmental authority, in order to bring the design review process to a speedy and satisfactory conclusion. Owners are strongly encouraged to be involved in the design review process and attend the Pre-Design and Pre-Construction Meetings.

The process from start (design) to approval is divided into the following phases:

1. **Pre-Design Meeting**
2. **Plan Review**
3. **The Founder's Decision**

Note that there are additional procedures that occur after the plans are approved and prior to construction through to the completion of construction. Those are discussed in detail in the Construction regulations section of these Guidelines.

PRE DESIGN MEETING

To initiate the review and approval process prior to preparing formal drawings or construction plans for a proposed improvement, the Owner and/or Designer/Architect should meet with the Founder to review the proposed architectural style and proposed finish floor elevations/dirt balance and other fundamental issues or concepts. At that time any questions regarding building requirements or interpretation of the Guidelines or the design review process will be discussed. This informal review and discussion is intended to facilitate an efficient planning and design process and to offer guidance prior to the initiation of preliminary design. An appointment for the Pre-Design Meeting should be made at least one week in advance.

Requirements and Recommendations:

1. **To assist the Owner and/or Architect/Builder/Designer, the Founder shall provide, if requested, a topographical map of the property in hard copy and Auto-Cad disk format or can email it directly.**
2. **It is the responsibility of the Owner and Architect/Builder/Designer using materials provided by the Founder to have their surveyor field verify all elevations/grades and locations using the established benchmarks, which can be obtained from the Founder.**
3. **Owners are strongly encouraged to attend the Pre-Design Meeting with their Architect/Designer or Builder.**

PLAN REVIEW

Three (3) sets of plan drawings, including all of the required exhibits, must be submitted to the Founder after the Pre-Design Meeting. All three sets must be at a readable scale and two sets must be on 24" X 36" sheets and the remainder on 11" X 17". The Owner is responsible for the accuracy of all information.

***Plan Review Submittals shall include*:**

1. **Site Plans: Must show boundaries, dimensions, locations and areas of the Building Envelope, the residence and all other buildings, distances from proposed structures to nearest structures (if any) on adjacent Lots, proposed driveway and parking areas, patios, pools, walls, trash enclosures, (Some of this is shown more importantly on the g&d plan and the rest we have never asked for nor do I think we need to) . All accessory uses contemplated on the Lot must be shown in this drawing. [I would leave that provision in] Grades, elevations, boundaries, Building Envelope dimensions/locations must be field verified by Owners surveyor, or engineer. Survey benchmark and elevation information may be obtained from Founder.**
2. **Ortho map: Shows the existing vegetation proposed to be saved and/or relocated on site.**
3. **Floor and Roof Plans: Show areas of flat and sloped roofs and all roof mounted equipment such as air conditioning units, , solar panels, skylights, etc. All uses and structures contemplated on the Lot must be shown.**
4. **Electrical Plan: Must show the location, number and type of all exterior light fixtures whether building mounted, recessed, ceiling, or any other type. Structured wiring requirements must also be identified on the electrical plan (see Structural Wiring section of these Guidelines).**
5. **Building Elevations: Show both existing (natural) and proposed grade lines and spot elevations, indicate all exterior materials and general colors, window specifications as well as elevations (heights) of all parapets and roof ridgelines. All dimensions must be shown and masses indicated. The natural grade elevations, at the low point and the high point, adjacent to the proposed structure must be indicated. The elevation of the highest point on the proposed structure, excluding chimneys, must also be indicated and the height from the low point adjacent to the proposed structure to the highest point on the structure must also be indicated.**
6. **Preliminary Landscape Plans: Show the general locations, sizes, quantities and species of plant materials proposed, including proposed transplanting plan. This requirement can be deferred until after construction has started with approval from the Founder, with the exception that any transplants required will need to be taken care of prior to start of construction.**
7. **Grading and Drainage Plans: Must be prepared by a New Mexico registered civil engineer. The plan must indicate all appropriate elevations and drainage facilities and should be in conformance with the Mariposa concepts, as outlined in these Guidelines. This plan will be reviewed by a registered New Mexico civil engineer on behalf of the Founder**
8. **Staking: To assist the Founder in its evaluation of the First Plan Review Submittal, the Owner may be required to provide preliminary staking at the locations of the corners of the residence or major improvements and other locations. The staking should be sufficient to indicate proposed building heights.**

9. **Lowest Natural Grade Point: It is very important for the Owner/Builder and Owner's Surveyor to establish and agree on the lowest spot and elevation of the natural grade adjacent to the proposed structure ("Low Point"). This Low Point and its elevation, is critical in determining the height of a structure. This point and its spot elevation must be clearly indicated on all plans. At the Pre-Construction meeting the Owner/Builder will be required to sign the Construction Regulations, which in part, require them to acknowledge that they agree on the Low Point location and spot elevation. No structure can exceed 26 feet from the Low Point to the highest point on the structure, excluding chimneys. For more information regarding this requirement refer to Building Heights in the Architecture Section.**

FOUNDER'S DECISION

After the Founder's review of the Plan Submittal, Founder will either approve the plans, (with or without conditions), or return the plans with comments to be addressed and resubmitted for additional review. If the founder approves the plans, two sets with a stamp of approval will be returned to the owner or designee and on (11" X 17") will retained by the Founder. If the Founder conditionally approves the plans, it will be necessary to meet with the Founder to address and comply with the conditions. At the time all conditions are complied with and Founder has fully approved the plans, two approved sets will be returned to the owner or designee and the 11'X17' set will be retained by the Founder. If the Founder defers approval of the plans, a set will be returned with all of the comments that must be addressed before the next submittal. The "redlined" set must be returned with the new submittal.

Approval Letter

Upon approval of the plans, the Founder will issue an approval letter with any conditions noted that will need to be addressed prior to the completion of construction.

1. **Often conditions may include the need for submittal of the following: Samples of materials and colors. The Founder will require samples or information of all exterior materials and colors, window and glass specifications, outdoor light fixtures and specifications and accent items including color photographs of any exterior artwork. If requested, these should be mounted on a manageable size board and indicate the Owner's name, date, and Lot number.**
2. **Landscape Plan: Showing the landscape treatment of all Natural, Transition and Private Areas. These plans should be the same scale as the site plan, and indicate areas to be irrigated, (if any), names, quantities, locations and sizes of all existing and proposed plants and any decorative features such as pools or imported rocks, sculpture; and a list of all proposed plants. Also show any plans for transplanting native materials. All disturbed areas in the Transition and Natural Areas must be re-vegetated within thirty days after completion of the home.**
3. **Lighting Plan: Design of the exterior light fixtures with dimensions, materials and colors, types of illumination and other devices. Supply catalog cut sheets and photometric data or photograph of fixture.**
4. **Plant Tagging: Tag all plants proposed for transplanting.**

BUILDING PERMIT

The Owner, or his representative will secure the Building Permit Letter for the plan approved from the Founder and, or a set of the approved plans by the Founder. All construction shall be in accordance with the approved plan and all applicable governmental rules and regulations. No construction may take place until approval by the Founder, Pre-Construction meeting has taken place and the Owner has provided the Founder with the $4,000 cash deposit. After approval by the Founder the Owner, or designee is responsible for securing the Building Permit from the City. The City will not accept a submittal that does not include Founder approved and stamped plans or a letter of approval from the Founder.

SUBMITTAL OF REVISED DRAWINGS

In the event of disapproval or deferral by the Founder of a Plan Submittal, the resubmission of drawings must follow the same procedure as the original submittal. This applies to any revisions to the plans by the owner.

VARIANCE FROM GUIDELINES AND PROCEDURES

The Charter provides that the Founder may authorize a variance from any of the Guidelines and procedures when there are special circumstances.

1. **Rules and Regulations for granting a variance may be obtained from the Founder.**
2. **A variance can only be granted when, in the sole and absolute opinion of the Founder, a unique circumstance dictates.**
3. **A variance can only be granted when circumstances such as topography, natural obstructions, hardship, or aesthetic or environmental considerations require.**
4. **The Founder does not undertake granting of variances lightly. It is strongly suggested that applications for a variance by an Owner only be considered under extreme circumstances.**
5. **The brief notice and description of variance issues in these Guidelines is not intended to replace the Rules and Regulations for granting a variance. It is intended only to put the reader on notice that a variance procedure is in place. For additional information you should review the Rules and Regulations For Granting A Variance.**

NON- WAIVER

Any approval by the Founder of drawings or specifications or work done or proposed, or in connection with other matters requiring approval under these Guidelines or the Chapter, including a waiver by the Founder, shall not be deemed to constitute a waiver of the right to withhold subsequent approval. For example, the Founder may disapprove an item shown on the Plans even though it may have been evident and could have been, but was not disapproved at an earlier review. An oversight by the Founder of non-compliance at anytime during the review process, construction process or during the final inspection, does not relieve the Owner from compliance with the Guidelines, the Charter and all other applicable codes, ordinances and laws.

CONSTRUCTION REGULATIONS

To assure that the intent of these Guidelines are incorporated into the building process and that the natural landscape of Mariposa is not unduly damaged during construction, the following Construction Regulations shall be a part of the contract documents. The Founder will conduct a monitoring program during the course of any construction to assure that building is proceeding in accordance with the Guidelines. Owners will be notified of any inconsistencies.

OWNER'S RESPONSIBILITY

Owners of Lots at Mariposa have the ultimate responsibility for the actions and activities of builders, contractors, subcontractors and suppliers as they relate to these Guidelines. If the Founder encounters problems of compliance with these Guidelines during the course of construction the Founder will notify the owner and the builder. But it is the Owner that is responsible for compliance with the Guidelines.

CONSTRUCTION REGULATIONS OUTLINE

The following Construction Regulations Outline is described in detail in this section of the Guidelines.

1. **Construction Deposit**
2. **Pre-construction Meeting**
3. **Commencement of Construction**
4. **Construction Review**
5. **Construction Requirements**
6. **Final Inspection**
7. **Enforcement**

CONSTRUCTION DEPOSIT

Prior to the Founder issuing a permit to proceed with construction and the start of construction, the Owner, or Builder will be required to post a $4,000 cash or cash equivalent deposit, as assurance of their intent to comply with the provisions of these Guidelines. During the course of construction and until the Final Inspection has been satisfactorily completed and all requirements of these Guidelines have been complied with the cash deposit will be held by HDIC in the Owners/Builders Construction Trust Account. During this period the cash deposit can be used by the Founder to cure problems of non-compliance with these Guidelines, if after ten day written notice to the Owner, the Owner does not satisfactorily undertake cure of the problem.

The cash deposit will be refunded to the Owner, or Builder (the entity who put up the deposit) after the Final Inspection has been satisfactorily completed and the Grading and Drainage Certification that all grading and drainage was constructed in substantial compliance with the approved plans has been received from Owner's registered New Mexico civil engineer and approved by the Founder.

PRE-CONSTRUCTION CONFERENCE

A meeting with the Founder prior to any construction activity is required to review procedures and clarify logistics. The Founder requests that both the Builder and Owner attend this conference and that the Builder and Owner sign a copy of these Construction Regulations agreeing to comply with them.

When the Founder has approved the Plans, Cash Deposit received, Pre-construction Conference held and Construction Regulations signed by the Owner, Builder and the Founder, construction may start. Construction may not proceed before the Construction Regulations are signed.

COMMENCEMENT OF CONSTRUCTION

Once the Founder has approved plans, the Owner must begin construction within one year (the date construction is deemed to have started is the date on which the Construction Regulations are signed by the Founder) and substantially complete construction one year thereafter.

CONSTRUCTION REVIEW

The Founder may and will inspect work in progress. Any evidence of non-compliance with the Guidelines will be communicated to the Owner and Builder. Owners of Lots at Mariposa have the final responsibility for compliance with the terms and conditions of these Guidelines and the Charter.

CONSTRUCTION REQUIREMENTS

Occupational Safety and Health Act Compliance (OSHA)

All applicable OSHA regulations and guidelines must be strictly observed at all times. However, the Founder is not responsible for enforcing OSHA regulations.

Construction Trailers, Portable Field Offices, Etc.

Any Owner or Builder who desires to bring a construction trailer, field office, or the like to Mariposa shall obtain written approval from the Founder by submitting a copy of the site plan with proposed locations of the construction trailer or field office, the portable toilet, and the trash receptacle. Temporary structures must be removed before the Final Inspection

Fencing

To protect the Natural Area of a Lot from damage during construction, the Founder requires a fence, at least six feet high, to be installed to completely enclose the construction area and the Transition Area.

Recommendations and Requirements:

1. **The fence shall follow the alignment of the Transition Area, shall have a single entrance located at the driveway entrance, unless approved otherwise by the Founder, and shall be maintained intact until the completion of construction.**
2. **The fence must be installed no later than the time footings are completed. However, the Founder may require that the fence be installed earlier.**
3. **The construction fence must be placed within fifteen (15) feet of the planned improvement. The location will be determined at the pre-construction meeting.**
4. **The construction trailer (if any) portable toilet, construction material storage and dumpsters must all be contained within the chain link fence.**
5. **In special cases, the Founder may allow materials to be stored outside the fence when approved in advance by the Founder.**

Disturbance Of Natural And Transition Areas

Transition Areas: The Transition Area is that part of the Building Envelope and, or Natural Area between the construction fence and any improvement or walls of the residence, which is visible from adjacent properties, streets or public spaces. Please refer to the more complete definition in the Site Planning section of these Guidelines.

Recommendations and Requirements:

1. **The Transition Area boundary within the Natural Area is a maximum of fifteen feet from the improvement being constructed.**
2. **Upon completion of construction, this area must be replanted with native vegetation to match the adjacent Natural Area in appearance.**
3. **Spray irrigation to help establish seeding germination and re-vegetation in the Transition Area is allowed, but must be discontinued after re-vegetation is established.**

Natural Areas: The Natural Area of the Lot is that area outside the Transition Area and generally must remain in an undisturbed condition. However, landscaping (with an approved plan from the Founder) and certain other construction activities, or improvements may take place in this area. For a more complete definition of the Natural Area please refer to the Site Planning Section of these Guidelines.

If it is necessary to conduct construction activities outside of the Transition Area, in the Natural Area, in order to complete an improvement falling within the Building Envelope, the Owner of the Lot, or the Owner's representative, must submit to the Founder a Grading Plan description of the proposed encroachment. If approved, this encroachment into the Natural Area must be returned, as closely as possible, to its original condition. The Founder will only permit such encroachment where the proposed improvement within the Building Envelope is located so close to the Building Envelope line that construction is unreasonably difficult without the construction activity encroachment.

Recommendations and Requirements:

1. **The Natural Area that is disturbed during construction must be restored prior to Final Inspection.**
2. **Encroachment into the Natural Area may be allowed, if shown on the Final Plan which was approved by the Founder, for construction of water lines, sanitary sewer lines and facilities, electric lines, gas lines, cable TV lines and for water harvesting facilities or storm water drainage facilities and natural retaining structures. Any disruption of the Natural Area must be minimized, and disruption limits indicated on the Final Plan approved by the Founder.**
3. **Encroachment into a SSCAFCA/Association easement will require approval by the Founder and from SSCAFCA and may require approval from the City (any such approval must be obtained by the Owner or Builder, at the Owner or Builder expense).**

Debris And Trash Removal

Owners are responsible for maintaining the construction site in a clean and neat manner. Trash and debris shall be removed from each construction site frequently and not be allowed to accumulate. During construction, each construction site or the route to and from the construction site, shall be kept neat and clean, and shall be properly policed to prevent it from becoming a public eyesore.

Recommendations and Requirements:

1. **Builders shall clean up all trash and debris on the construction site as needed. However, the site must be cleaned each Friday, by the end of the day.**
2. **Builders must clean up blowing trash and debris from their job site that is on adjacent Lots or Open Space.**
3. **Temporary concrete "wash pits" must be in approved locations within the fenced construction site and cleaned by the contractor after completion of construction, periodically if they become full or non functional.**
4. **Fuels, lubricants and other petrochemicals must be stored outside of the 100-year flood plain and any Lateral Erosion Envelope (LEE) line easement. Protect against construction equipment leaks or discharges of fuels or lubricants in the riparian ecosystem. Contain petrochemical spills including contaminated soil and dispose of it at approved sites.**
5. **Lightweight materials, packaging, and other items shall be covered or weighted down to prevent their being blown off the construction site.**
6. **Builders are prohibited from dumping, burying, or burning trash anywhere in Mariposa except as expressly permitted by the Founder.**

Unsightly dirt, mud, or debris from activity on each construction site and on the adjacent public street must be promptly removed and the general area cleaned up.

7. **Owner and Builder must cooperate with the construction waste materials recycling program established by the Founder.**

Stormwater Pollution Prevention

The Owner or designee must prepare and implement an EPA Storm Water Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an National Pollutant Discharge Elimination System (NPDES) General Permit.

Under the provisions of the Clean Water Act federal law prohibits storm water discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a NPDES Permit.

Additional information regarding NPDES and NOI electronic submittals can be directed to www.epa.gov/npdes/stormwater/cgp or call Storm Water Notice Processing Center at 866-352-7755.

The Founder has no responsibility for review, approval or maintenance of individual SWPPP's, but will require implementation of "Best Management Practices" (BMP) to minimize storm water pollution during construction. Some BMP's that may be appropriate are:

a) **Silt Fence at appropriate areas.**
b) **Rock cobble pads at drive connections to streets.**
c) **Temporary or permanent drainage ponds and facilities installed.**
d) **Hay bales at appropriate areas.**
e) **Rock cobble dams at appropriate areas.**
f) **Trash containers and frequent trash removal.**
g) **Concrete washout pits**
h) **Protection devices utilizing BMP's to control runoff or erosion from getting into arroyos or streets.**
i) **Protection of trees and major shrubs**
j) **Street sweeping as required.**

Job sites need to have all permits properly posted to comply with EPA requirements.

Contractor and Owner are responsible for compliance with EPA regulations, including inspection and record keeping related to the SWPPP.

Non-compliance with EPA and SWPPP requirements are subject to fine by the EPA and Founder, as provided for in these Guidelines.

Recycle Of Construction Materials

Founder intends to establish a recycle program for recycling of construction materials and Owner and Builder shall cooperate with such program.

Dust And Noise Control

The Mariposa community must be protected from dust and noise arising from construction activities.

Recommendations and Requirements:

Contractor shall maintain a program of dust and erosion control at all times during construction and until cut and fill areas are stabilized and planted areas established.

The Owner and Builder shall be responsible for controlling dust and noise, including, without limitation, music from the construction site in accordance with all governmental regulations and ordinances pertaining to noise and blowing dust.

A water truck must be on site during the grading of the lot to control the dust.

Sanitary Facilities

Builder will be responsible for providing adequate sanitary facilities for his/her construction workers.

Recommendations and Requirements:

Portable toilets or similar temporary toilet facilities shall be located only within the fenced Transition Area or in area approved by the Founder.

Vehicles And Parking Areas

Each Builder shall be responsible for its subcontractors and suppliers obeying the speed limits and traffic regulations posted within the development. Fines may be imposed against the Builder/Owner and/or the Construction Deposit may be debited for repeated violations.

Recommendations and Requirements:

Adhering to the speed limits shall be a condition included in the contract between the Builder and its subcontractors/suppliers. Repeat offenders may be denied future access to Mariposa by the Founder.

Construction crews shall not park or turn around on, or otherwise use, other Lots or any open space.

Private and construction vehicles and machinery shall be parked only within the Building Envelope, public or private streets, or in areas designated by the Founder.

Flagging must be installed behind curb along either side of the road to keep vehicles from parking on lot or re-vegetated areas.

All vehicles shall be parked so as not to inhibit traffic. The Founder may require that all vehicles be parked on one side of a street to improve traffic flow.

Parking on the re-vegetated right-of-way is not allowed.

Any disturbance from construction vehicles outside of the transition area must be restored immediately.

Conservation Of Landscape Materials

Builders are advised that the Lots and open spaces of Mariposa contain valuable native plant and other natural features, such as top-soils, that should be absolutely protected during construction. The several inches of top-soil should be reserved and reused when restoring damaged areas.

Excavation Materials

Excess excavation materials must be hauled away from Mariposa at the time of excavation and not stored on the site.

Blasting

The Founder does not anticipate that blasting will be necessary. However, if any blasting is to occur, the Founder must be informed far enough in advance to make sure that the applicant has obtained the advice of expert consultants that blasting may be accomplished safely. These consultants must so advise the Founder in writing.

Recommendations and Requirements:

No blasting or impact digging causing seismic vibrations may be undertaken without the approval of the Founder based upon such advice from a qualified consultant.

Applicable governmental regulations concerning blasting must be observed and all required permits obtained.

The Founder's only responsibility is to require evidence of such consultant's expertise, and shall have no liability for the blasting.

Restoration or Repair of Other Property Damages

Recommendations and Requirements:

1. **Damage and scarring to any property, open space or other Lot, including, but not limited to roads, driveways, concrete curbs, gutters, utilities, vegetation and/or other improvements, resulting from construction operations, will not be permitted.**
2. **If any such damage occurs, it must be repaired and/or restored promptly and any expenses are those of the Owner, or Builder. Any repairs to roads, concrete curbs, gutters and utilities in the right-of-way must be approved by the City of Rio Rancho prior to release of the construction deposit.**

Construction Access

The only access during the time a residence or other improvement is under construction will be over the approved driveway for the Lot unless the Founder approves an alternative access point.

Recommendations and Requirements:

1. **Only one construction access shall be permitted onto any Lot, except with the written approval of the Founder.**
2. **If an additional construction access is allowed, the Committee may limit the location, use and duration of the access.**

Construction Signage

All signs at Mariposa will conform to a unified standard prescribed by the Founder.

1. **Only one construction sign will be allowed per Lot.**
2. **Construction signs may convey the general contractors and/or architects identification - name, logo, and telephone number.**
3. **Construction signs shall be removed by the contractor at the completion of construction.**
4. **No other construction signs (i.e. subcontractors, material suppliers) are permitted on the lot.**
5. **No banners, flags, balloons, etc., are permitted, except for special events and must be approved by the Founder.**

6. The required construction sign frame, including panels, is available for purchase from HDIC for $100.

Miscellaneous and General Practices

All Owners will be responsible for the conduct and behavior of their agents, representative, builders, contractors, and subcontractors while on the premises of Mariposa.

The following practices are prohibited:

1. Changing oil on any vehicle or equipment on the site itself or at any other location within Mariposa other than at a location, if any, designated for that purpose by the Founder.
2. Allowing concrete suppliers, plasterers, painters, or any other subcontractors to clean their equipment anywhere but the location specifically designated, if any, for that purpose by the Founder.
3. Any inadvertent, or intentional spills, or washouts of concrete, plaster, paint, etc. must be cleaned immediately, including any such incident on streets or right-of-ways.
4. Removing any rocks, plant material, topsoil, or similar items from any property of others within Mariposa, including other construction sites.
5. Carrying any type of firearms within Mariposa.
6. Using disposal methods or equipment other than those approved by the Founder.
7. Disposing carelessly of cigarettes and other flammable material. At least one10- pound ABC rated dry chemical fire extinguisher shall be present and available in a conspicuous place on the construction site at all times.
8. Fires of any type including campfires and the burning of waste material or trash is prohibited.
9. Carelessly treating or removing protected plant materials or plants not previously approved for removal by the Founder.
10. Disposing of trash or any other material on any Lot or property in Mariposa.
11. Bringing pets, particularly dogs, into Mariposa by construction personnel is prohibited. In the event pets are brought into Mariposa, the Founder shall have the right to contact authorities to impound the pets, refuse to permit the Builder or subcontractor involved to continue work on the project, or to take such other action as may be permitted by law, these Design Guidelines, or the Charter.

Preservation of Archaeological Sites

A detailed archaeological survey has been conducted for Mariposa. While there are no known archaeological sites on any of the building lots, artifacts may be encountered during the construction process.

Without the prior written approval of the State of New Mexico Historic Preservation Division, and the Founder, Owners shall not undertake any of the following:

1. Activities, which directly or indirectly jeopardize the physical integrity of the Archaeological Sites, which may be discovered during construction;
2. Removal of artifacts, structures or other items associated with the Archaeological Sites;
3. Construction, alteration, excavation, ground disturbance, landscaping or other modification of the Archaeological Sites (except for emergency measures permitted under Section 2.2 of the Declaration and easements for the Lots with Archaeological Sites).

Daily Operation

Daily working hours for each construction site shall be from 30 minutes before sunrise to 30 minutes after sunset unless the Founder designates other hours in writing. Construction on Saturday, Sunday and holidays shall not start before 7:30 AM and must end by 5:30 PM.

FINAL INSPECTION

The Owner of any residence or other improvement under construction shall give written notice to the Founder when the structures are complete. At that same time the Owner must submit certification from the Owner's engineer that the grading and drainage improvements were constructed in substantial conformance with the approved plans. If Owner has knowledge that they have not completed all required improvements, such as landscaping, they must note that fact, along with a plan for completion. Within 20 days of such notice the Founder will inspect the residence and/or improvements. Final inspections will not be conducted if all materials requested by the Founder are not submitted to the satisfaction of the Founder. If it is found that any work was not done in compliance with the approved Final Plan Submittal and these Guidelines, it shall notify the Owner in writing, specifying in reasonable detail the particulars of non-compliance, and shall require the Owner to remedy the same. If within 30 days of Founder notification, the Owner has not corrected the items of non-compliance, the Founder may take such action to remedy this non-compliance as is provided for in these Guidelines or the Charter including, but without limitation, injunctive relief or the imposition of a fine.

All construction must be completed and in compliance with the Final Plan approved by the Founder, including restoration of disturbed Transition and Natural Areas and the grading and drainage improvements complete and certified in substantial compliance, by the Owner's registered New Mexico civil engineer, before the Final Inspection will be performed and ultimately approved, or disapproved by the Founder.

Recommendations and Requirements:

1. **The registered New Mexico civil engineer, for the Lot Owner must certify that grading and drainage construction was completed in substantial compliance with plans approved by the Founder. This must be submitted before the Final Inspection will be scheduled.**
2. **Certification can be an "as built" plan or a letter stamped by a professional engineer.**
3. **All construction must be completed and in compliance with the Final Plans Approved by the Founder.**
4. **Any Transition and Natural Areas, which have been disturbed, must be restored.**
5. **The Founder will establish all outstanding issues that must be submitted and approved prior to scheduling the Final Inspection.**
6. **The Final Inspection, which is completed by the Founder, includes walking the site with the approved plans to verify, that which was built, is in substantial compliance of the Founder approved plans. The Owner and Builder will be notified immediately of any discrepancies.**
7. **After all certifications have been received (from registered Engineers), the Founder has deemed compliance and completion and after the Final Inspection has been satisfactorily completed, the Construction Deposit will be returned.**

ENFORCEMENT

In addition to such other rights which are specifically granted in these Guidelines, in the Charter and in the By-Laws of the Association, the Founder has the power to impose reasonable fines, which shall constitute a lien upon the Unit of the violator. A list of fines may be obtained from the Founder. The Construction Deposit may be retained by the Founder until all violations are cured, or may be applied by the Founder to cure violations and satisfy outstanding fines.

Recommendations and Requirements:

1. **Any structure or improvement placed or made in violation of the Charter and the Guidelines shall be deemed to be nonconforming. Upon written request from the Founder Owners shall, at their own cost and expense, remove such structure or improvement and restore the land to substantially the same condition as existed prior to the nonconforming work. Should an Owner fail to remove and restore as required, the Founder or its designees shall have the right to enter the property, remove the violation, and restore the property to substantially the same condition as previously existed.**
2. **The Founder may exclude any contractor, subcontractor, agent, employee, or other invitee of an Owner who fails to comply with the terms and provisions of the Guidelines.**

NON-WAIVER

Any approval by the Founder of drawings, specifications or work done or proposed, or in connection with other matters requiring approval under these Guidelines or the Charter, including a waiver by the Founder, shall not be deemed to constitute a waiver of the right to withhold subsequent approval. For example, the Founder may disapprove an item shown on the Final Plan Submittal even though it may have been evident and could have been, but was not disapproved at an earlier review. An oversight by the Founder of non-compliance at anytime during the review process, construction process or during its final inspection, does not relieve the Owner from compliance with these Guidelines and all other applicable codes, ordinances and laws.