Town of Moraga

Design Guidelines

Revised November 2020

Adopted by the Planning Commission in June 2007.
Amended by the Moraga Town Council on January 27, 2010,
April 11, 2018, September 9, 2020 and November 10, 2020

CONTENTS

11 MORAGA CENTER SPECIFIC PLAN DESIGN GUIDELINES

APPENDICES

1 DESIGN PHILOSOPHY

PURPOSE AND ORGANIZATION OF THE DESIGN GUIDELINES

The design philosophy of the Town of Moraga Design Guidelines is drawn directly from the Town of Moraga General Plan Community Design element. General Plan community design policies are indicated below as *GP CD #* and serve as the foundation of the Town of Moraga Design Guidelines. These Guidelines have been developed to further the implementation of Title 8, 13, and 14 of the Moraga Municipal Code. They are used by staff, Planning Commission (acting both as the Design Review Board and its planning capacity), and Town Council in the evaluation of proposed projects which require a building or grading permit. If followed closely by applicants when developing plans for approval by the Town, the opportunity for review at the staff level is possible (see Procedural Considerations).

The intent is that these guidelines provide flexibility while at the same time providing further clarity as to the architecture that aligns with the Town's vision. The Design Guidelines are intended to promote quality in design character so that buildings have an authentic character. The sketches, photographs and images are meant only to visually describe concepts in the text or make reference to pertinent precedents and should not be considered exact models. The goal of the Design Guidelines is to ensure that new development, improvements, and additions will fit contextually and make a positive contribution to a sense of place.

The Design Philosophy of the Town of Moraga General Plan calls for the Town to: maintain the Town's semi-rural character; protect ridgelines and hillside areas; complement existing landscaping; enhance the Town's scenic corridors; minimize the impacts of development; thoughtfully design single-family residential neighborhoods; thoughtfully design new multi-family residential developments; and promote commercial centers as community places.

Maintain the Town's Semi-Rural Character (SRC)

1.) Protect important elements of the natural setting to maintain the Town's semi-rural character. Give particular attention to viewsheds along the Town's scenic corridors, protecting ridgelines, hillside areas, mature native tree groupings, and other significant natural features. (GP CD1.3) See Guidelines SRC1, SRC5, and RH4.

2.) Protect the scenic and environmental qualities of canyon and valley areas to retain the Town's semi-rural character. Preserve both close-up and distant views of the natural hillside landscape from valley areas, and preserve significant linear open spaces in major canyons and grassland valleys with floodplain zones as the visual focus. (GP CD1.4) See Guideline SRC8.

Protect Ridgelines and Hillside Areas (RH)

1.) Ridgelines and Hillside Areas. Protect ridgelines from development. In hillside areas, require new developments to conform to the site's natural setting, retaining the character of existing landforms preserving significant native vegetation and with respect to ridgelines, encourage location of building sites so that visual impacts are minimized. When grading land with an average slope 20% or more, require "natural contour" grading to minimize soil displacement and use of retaining walls. Design buildings and other

improvements in accordance with the natural setting, maintaining a low profile and providing dense native landscaping to blend hillside structures with the natural setting.(GP CD1.5) See Guideline RH1 through RH10 and ID10.3, ID10.4, ID10.6, ID11.1, ID13.3, SFR2.12, SFR2.13, SFR2.14, SRC7, L1, L2, and L3.

Complement Existing Landscaping (L)

1.) Emphasize and complement existing mature tree groupings by planting additional trees of similar species at Town entries, along major street corridors, in and around commercial centers, in areas of new development, and along drainage ways**.** (GP CD1.6) See Guidelines SC1.9, L3.8, and CC1.7e.

2.) Encourage the use of native, fire-resistive, and drought-tolerant species. (GP CD1.6) See Guidelines L2.5, L3.16 and SC1.11 and Appendix B.

Enhance the Town's Scenic Corridors (SC)

1.) Improve the visual character along Scenic Corridors with lighting, landscaping, and signage. (GP CD3.2) See Guidelines SC1.1 and SC1.10.

2.) Use additional street tree planting, berms, fencing and ornamental landscaping to enhance the visual continuity along the Town's Scenic Corridors. (GP CD3.5) See Guidelines SC1.1.

3.) Require appropriate landscaping for both public and private developments located on designated Scenic Corridors, including pedestrian lighting and street trees within existing commercial areas. (GP CD3.5) See Guideline SC1.7and CC1.7e.

4.) Encourage use of native and drought-tolerant species and, where applicable, preservation of orchard trees. (GP CD3.5) See Guidelines L2.5, L3.16 and SC11.

5.) Convert all overhead wiring in scenic corridor areas to underground as soon as possible. (GP CD3.7) See Guideline SC13.

Minimize the Impacts of Development (ID)

1.) Concentrate new development in areas that are least sensitive in terms of environmental and visual resources, including areas of flat or gently sloping topography outside of flood plain or natural drainage areas. (GP CD1.1) See Guidelines ID1 and ID11.1.

2.) Retain natural topographic features and scenic qualities through sensitive site planning, architectural design, and landscaping. Design buildings and other improvements to retain a low visual profile and provide dense landscaping to blend structures with the natural setting. (GP CD1.2) See Guidelines ID7, L2, and L3.

3.) Whenever and wherever possible, convert overhead utility lines to underground and require underground utilities in areas of new development. (GP CD1.8) See Guidelines SC1.11 and ID13.8.

Thoughtfully Design Single-Family Residential Neighborhoods (SFR)

1.) Review by staff or the Planning Commission acting as the Design Review Board to ensure that new residential development in existing neighborhoods reflect the size, scale, height, setbacks, and character of existing development. While new homes, home additions, and remodels should be allowed, they should not create adverse impacts on adjacent properties or detract from overall neighborhood character. All projects should be subject to discretionary review by staff. (GP CD4.3) See Guidelines SFR1.1-1.6 and SFR2.1-2.6.

2.) Design new single-family developments to create high quality pedestrian environments with pathways to adjacent neighborhoods and, where feasible, commercial areas. Ensure that the layout of new residential lots respects the site topography and natural features. Where feasible, avoid standard repetitive lot sizes and shapes in hillside areas. (GP CD4.4) See Guidelines SFR1.6.

Thoughtfully Design New Multi-Family Residential Developments (MFR)

1.) Locate new multi-family developments in close proximity to commercial centers, transit stops, and community facilities such as parks and schools, with site design and landscaping to create buffers between adjacent uses while providing connection to pedestrian and bicycle paths. (GP CD5.1) See Guideline MFR1.7.

2.) Ensure that new multi-family developments are planned, designed and constructed to enhance the local area, reflecting the scale and quality of their surroundings. Encourage designs that help to break up large building masses, for example by breaking one large building into several smaller buildings; providing variations in rooflines; creating a three-dimensional façade rather than a massive, flat façade; and using landscaping to soften building edges. Architectural styles and materials should reflect the character of existing residential neighborhoods, with landscaping to enhance the natural setting. (GP CD5.2) See Guidelines L3, MFR2.6, and MFR2.7.

3.) Require usable private and common open space in all new multi-family residential development. (GP CD5.3) See Guideline MFR1.8.

4.) Design new multi-family developments to create high quality pedestrian environments, with connections to the Town's pedestrian path and trail system. (GP CD5.4) See Guideline ID 13.7.

Promote Commercial Centers As Community Places (CC)

1.) Improve the design quality of the Town's commercial centers, creating an attractive and inviting environment for shopping and socializing and enhancing their function as community focal points. Enhancements might include more landscaping; configuration of parking areas to incorporate more landscaping and create better pedestrian connections and entrances; architectural improvements to create visual focal points; creation of pedestrian walkways, plazas and seating areas; and signage improvements. (GP CD6.1) See Guidelines CC1.6-1.7.

2.) Ensure adequate traffic access, circulation and parking in the Town's commercial centers. Reduce potential safety hazards by minimizing the number of driveway openings onto public streets, encouraging side street access to commercial developments, and encouraging connections between developments. (GP CD6.2) See Guideline SRC3.

3.) Create a safe, inviting and functional pedestrian environment in commercial areas, with interconnected walkways; pedestrian amenities (e.g., seating, lighting, signage, landscaping); plaza areas; and outdoor café spaces. Where pedestrian paths cross parking areas or vehicle lanes, give clear priority to pedestrians through pavement markings, differentiation in the pavement surface, and signage. (GP CD6.3) See Guideline CC1.7.

4.) Consider the use of flexible setbacks (for example, with new buildings at or near the public sidewalk and parking located to the side or rear) to achieve pedestrian-oriented design goals. (GP CD2.3) See Guideline CC2.6.

5.) Encourage high quality office development projects in close proximity to the Town's retail centers, with pedestrian connections between them. Encourage office building designs that respect the visual dominance of the landscape, reflect the scale and character of adjacent neighborhoods, and create buffers between residential neighborhoods and arterial roadways. (GP CD6.4) See Guideline CC1.1 and CC1.7.

2 PROCEDURAL CONSIDERATIONS

DESIGN GUIDELINE IMPLEMENTATION

While there is no formula for good design, the Town of Moraga Design Guidelines are indicators of the type of design that the Town is likely to approve. The Town recognizes that each project represents a unique combination of design elements and natural features. Applicants and/or their representatives shall consider the Design Guidelines when developing a project proposal. Compliance with these Guidelines does not, however, guarantee approval. Similarly, needing to request an exception to the Guidelines does not mean that the application will be disapproved. Procedurally, compliance with the Design Guidelines enables a project to be considered at the staff level (Administrative Design Review, or ADR) unless the type or scale of the project requires Design Review Board (DRB) approval, such as applications for development in a scenic corridor[1], hillside[2] development, new residential construction, and appeals from certain staff decisions. The definitions in Appendix D to the Town of Moraga's General Plan are expressly incorporated herein and shall be used to interpret and implement these Design Guidelines,

Exceptions to the Design Guidelines may be approved by the Planning Commission acting as the Design Review Board if the overall finding for design approval can be made. In single-family residential districts the DRB must find that:

1.) *The proposed improvements conforms with good design as set forth in the Town of Moraga Design Guidelines, and in general contributes to the character and image of the Town as a place of beauty, spaciousness, balance, taste, fitness, broad vistas, and high quality.*
2.) *The proposed improvement will not have a substantial adverse affect on neighboring properties or the community due to poor planning; neglect of proper design standards, or the existence of building and structures unsuitable to and incompatible with the character of the neighborhood.*
3.) *The proposed improvement will not lower property values; discourage the maintenance and improvement of surrounding properties; or preclude the most appropriate development of other properties in the vicinity.*
4.) *The proposed improvement will not impair the public health, safety, or welfare.*

The finding above that requires the Town to determine that the proposed improvements conform with good design as set forth in the Town of Moraga Design Guidelines means that, generally speaking, the project is in compliance with the Guidelines but exceptions from certain guidelines may be necessary in order to achieve overall acceptable design. This is in recognition of the fact that Design Guidelines can be in competition with one another, as there are often competing design considerations, such as water conservation, fire safety, and stormwater management.

In approving an application for design review, the DRB may impose conditions of approval. Such conditions would be required in order to mitigate any negative effects that the development may have on the site, the neighborhood, or the community as a whole. Special conditions may also

[1] The major scenic corridors designated in the General Plan include: Bollinger Canyon Road, Camino Pablo, Canyon Road, Donald Drive (along the ridgeline of Mulholland Hill), Moraga Road, Moraga Way, Rheem Boulevard, and St. Mary's Road.
[2] A hillside is defined as any slope greater than 20%.

be attached when the DRB is so directed by the Planning Commission (PC) or Town Council (TC), or when the DRB determines that such conditions are needed in order to implement policies adopted by the Commission or Council. Higher standards than the ones contained in these guidelines may be set by the Planning Commission for a particular development project, and such standards would then be implemented by the Planning Commission acting as the Design Review Board in place of the comparable guidelines.

DESIGN REVIEW PROCESS

Prior to processing an application for design review, the application must be determined complete by the Town. The Town may, at its discretion, require that a portion of the required submittal be sent to a specialist for review, at the applicant's expense, prior to a determination of completeness.

All applications are subject to the applicable provisions of the Moraga General Plan and Municipal and State Codes, in addition to these Design Guidelines.

There are two levels of design review in Moraga. Additions to existing residences that conform to the Design Guidelines and are not proposed on a hillside or within a scenic corridor are eligible for review at the staff level (Administrative Design Review or ADR) with notice to neighbors but without a public hearing.

Design Review Board (DRB) approval is required for all new residences and all additions to existing residences that require an exception to the Design Guidelines or are proposed within a scenic corridor or on a hillside. In addition, the DRB considers certain appeals from staff decisions. Appeals from DRB decisions and certain staff decisions are considered by the Planning Commission (PC). Similarly, the Town Council (TC) considers appeals from PC decisions and applications for grading on pre-development average slopes greater than 25%.

DESIGN GUIDELINES FOR HILLSIDES AND RIDGELINES

On April 11, 2018, the Town Council adopted Design Guideline amendments as part of the Hillsides and Ridgelines project. These amendments clarify the Town's design preferences to support new development that maintains Moraga's unique semi-rural feel and scenic natural setting. Specific amendments to the Design Guidelines adopted as part of the Hillsides and Ridgelines project are as follows ("Hillsides and Ridgelines Amendment"):

- New design guidelines for hillside development in Section 4 (Protect Ridgelines and Hillside Areas).
- Revised design guidelines for development within 500 feet of a scenic corridor in Section 6 (Enhance Town's Scenic Corridors)
- New maximum floor area ratio guidelines for lots greater than 20,000 square feet in Appendix B.

The following types of development projects are exempt from the Hillsides and Ridgelines Amendments:

1. Proposed development projects within the Moraga Center Specific Plan (MCSP) area, which shall be governed by the provisions of the MCSP, as may be amended from time

to time, and any amendments to the Moraga General Plan adopted in conjunction with any amendment to the MCSP.

2. Subdivisions approved by the Town where a Final Map has been recorded for the subdivision prior to the effective date of the Hillsides and Ridgelines Amendments.

3. Pending development project applications with a published Draft EIR or IS/MND as of the effective date of the Hillsides and Ridgelines Amendments, provided no entitlements have been granted. Such pending development project applications shall be governed by the provisions of the Moraga General Plan and all other applicable policies, standards and regulations in effect prior to the adoption of the Hillsides and Ridgeline Amendments. Notwithstanding such exemption, once any pending development project application has been acted upon by the final reviewing body or is withdrawn by the applicant, this exemption shall no longer apply to any such application.

For any development project not specifically exempt from the Hillsides and Ridgelines Amendments, such amendments govern in accordance with and to the fullest extent permissible under law.

3 MAINTAIN THE TOWN'S SEMI-RURAL CHARACTER (SRC)

APPLICABLE TO ALL TYPES OF DEVELOPMENT

These guidelines are intended to help preserve the semi-rural features that make Moraga unique when considering applications for development. Therefore, ***these guidelines are applicable to all types of development.***

SRC1 Retain, protect, and utilize existing natural features, such as trees and other vegetation, interesting ground forms, rocks, water, and significant views in the design.

SRC2 The impact and presence of vehicles resulting from the development should be minimized through proper siting and screening in order to buffer parking areas from locations both interior and exterior to the site.

SRC3 Circulation systems should avoid conflict between vehicular, bicycle and pedestrian traffic. Emergency and service vehicle access shall be accommodated within the circulation system.

SRC4 Accessory structures should not encroach upon front yard and exterior side yard setbacks.

SRC5 Preserve natural site amenities.

a. Development should be planned in relation to natural features.

b. Natural features must be protected both during and after construction of the project.

c. Retain trees and other native vegetation, consistent with tree preservation ordinance, to maintain current stability of steep hillsides, retain moisture, prevent erosion, and enhance the natural scenic beauty. Grading under tree drip lines should be avoided to protect the root system during development.

d. Treat significant natural features, such as creeks, rock out-croppings, and prominent knolls, as assets.

SRC7 New trees should be planted to compliment the natural pattern of tree placement and should be selected from one of the palettes in Appendix B.

SRC8 Mature native tree groupings should be protected.

SRC9 Improvements should be sited away from creeks to enhance safety and to protect existing drainage patterns, riparian habitat, and wildlife.

4 PROTECT RIDGELINES AND HILLSIDE AREAS (RH)

This section establishes design guidelines for development in hillside areas in Moraga. A "hillside area" as defined in Chapter 8.04 of the Moraga Municipal Code includes either of the following:

- A parcel with an average predevelopment slope of twenty (20) percent or greater; or
- The area of a parcel where (i) the area of disturbance of a development project and/or (ii) the footprint of the primary structure, has an average predevelopment slope of twenty (20) percent or greater. These particular areas of a parcel shall be classified as a "Hillside Area" or "Hillside Land" regardless of the average predevelopment slope of the entire site or parcel in which the area of disturbance or the footprint of the primary structure is located.

Guidelines in Part 1 of this section apply only to subdivisions and new homes on an undeveloped parcel or site. Part 2 contains guidelines that apply to subdivisions and new homes ***as well as*** to additions that add a full or partial upper story to an existing home and/or increase the floor area of an existing home by 35 percent or more.

Some guidelines in this section address issues covered elsewhere in the Design Guidelines. In such a case, related guidelines in other sections are noted below. Hillside projects must comply with these other guidelines as applicable. In the case of conflict between guidelines in this section and in other sections, the more restrictive shall prevail.

PART 1: GUIDELINES THAT APPLY ONLY TO SUBDIVISIONS AND NEW HOMES

RH1: SUBDIVISIONS

See also guidelines SRC1, SRC5, SRC9, ID5, ID13, SFR1.

RH1.1 General Design. New subdivisions should be designed to minimize alteration to the natural terrain, blend with the natural setting, and preserve the scenic qualities of hillside areas.

RH1.2 Site Constraints. Development should be located in the portion or portions of the site that is/are least constrained and most suitable for development. To the greatest extent possible, the location of development should avoid the following constraints:

- Unstable soil, landslide susceptibility and other geologic hazards.
- Areas highly visible from a scenic corridor.
- Areas where proposed development would project above a ridge when viewed from any scenic corridor.
- Significant natural landforms including rock outcroppings, prominent knolls, bluffs, ravines, and other similar geologic features.
- Steep slope areas.
- Protected native, historic, and orchard trees as defined in Moraga Municipal Code Chapter 12.12, sensitive vegetation, wetlands, riparian areas, and special status species habitat.

- Wildfire hazard areas.
- Waterways and flood hazard areas.

Applicants for a development project shall submit a constraints analysis that identifies the location of these constraints on the site and demonstrates that location of the development will avoid these constraints to the greatest extent possible.

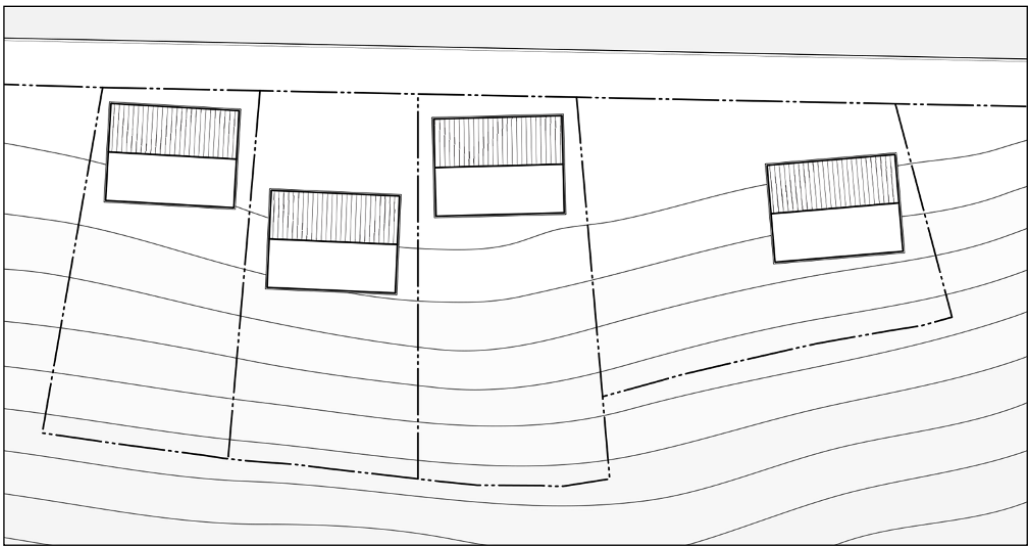
RH1.3 Design Variation. Homes within a subdivision should exhibit design variation that minimizes repetitive forms and contributes to a more organic design aesthetic. As appropriate, homes should feature variation in:

- Front building setbacks and placement on lots;
- Floor elevations and building heights; and
- Building massing, elevations, floor plans, architectural style, materials and colors.

Variation in the placement, orientation, setbacks, and architectural styles of homes creates visual interest in Moraga hillside subdivision

Variation in building heights contributes to a more organic design aesthetic

Figure RH-2: Variation in Building Setbacks



Variation in building setbacks helps a subdivision to blend into the natural setting

RH1.4 Clustered Development. Homes should be clustered if doing so will maximize the amount of preserved open space and better maintain the predominantly natural character of the hillside. Greenbelts and/ or fuelbreaks, incorporating appropriate transitional landscaping treatments, should be used to separate clustered structures from natural areas.

RH1.5 Density on Steep Slopes. Densities should be minimized on steep slopes to reduce exposure to geologic hazards and limit alteration of natural landforms.

RH1.6 View Impacts. Development should be located and design to minimize impacts to both close up and distant views of the natural hillside and ridgeline landscape as seen from valley areas.

RH2: ROADS AND SIDEWALKS

See also guidelines ID13.3, ID13.4, ID13.9.

RH2.1 Visibility. Roads should be located, designed, and landscaped to minimize their visibility from scenic corridors.

RH2.2 Natural Contours. Roads should follow the natural contours of the land and should not be orientated perpendicular to contour lines.

RH2.3 Curbside Parking. To reduce grading and allow for narrower roads, curbside parking lanes are discouraged. Guest parking should be provided through shared parking bays where doing so minimizes visual impacts and site disturbance.

RH2.4 Width. Roads should not exceed the minimum width required for emergency vehicle access and to meet applicable public works standards.

RH2.5 Sidewalks. Sidewalks may be provided on one side of the road only if doing so will minimize road width, grading, and general site disturbance. Separated and/or meandering pedestrian facilities that can accommodate landscape buffering and grade separations to better respond to topography are encouraged.

RH3: BUILDING PLACEMENT AND FOUNDATION DESIGN

See also guidelines SRC1, SRC5, SRC7, SRC8, SRC9.

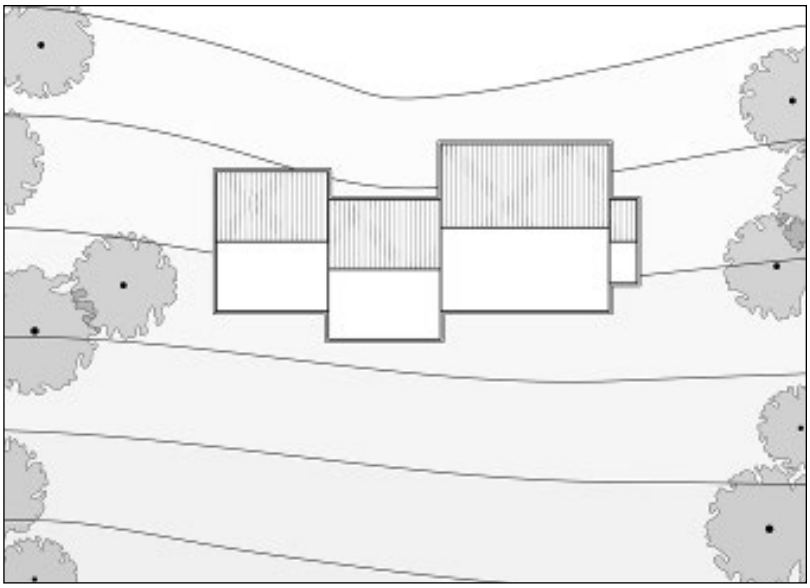
A. Building Placement

RH3.1 Minimize Grading and Avoid Natural Features. Buildings should be located on lots in a manner that minimizes the need for and total amount of grading to the extent practicable and avoids disturbances of natural features where possible.

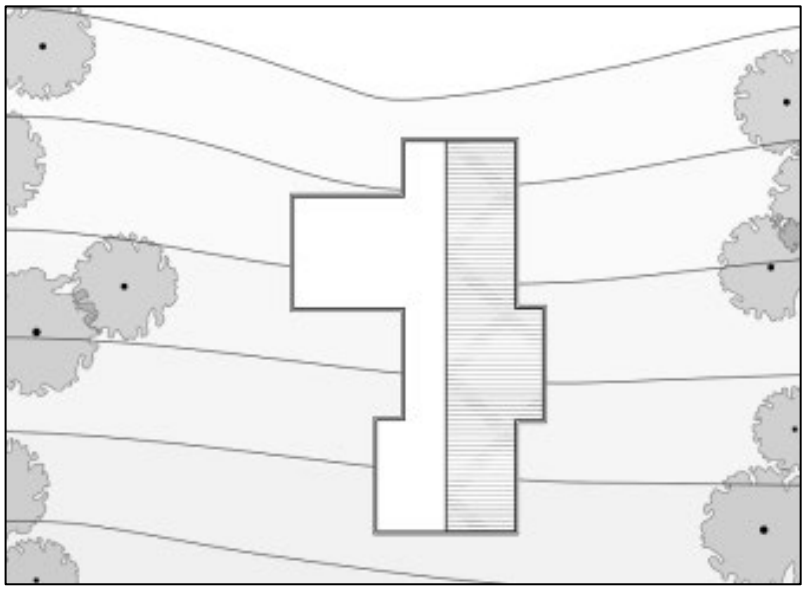
RH3.2 Conform with Natural Topography. Building placement should conform to the natural topography of the site and run with the contours in order to reduce the appearance of bulk and minimize the need for grading.

RH3.3 Appearance of Mass. On downhill lots, buildings should be placed on the lot so as to reduce building mass that hangs over or steps down the slope.

Figure RH-3: Conform with Natural Topography



DO THIS



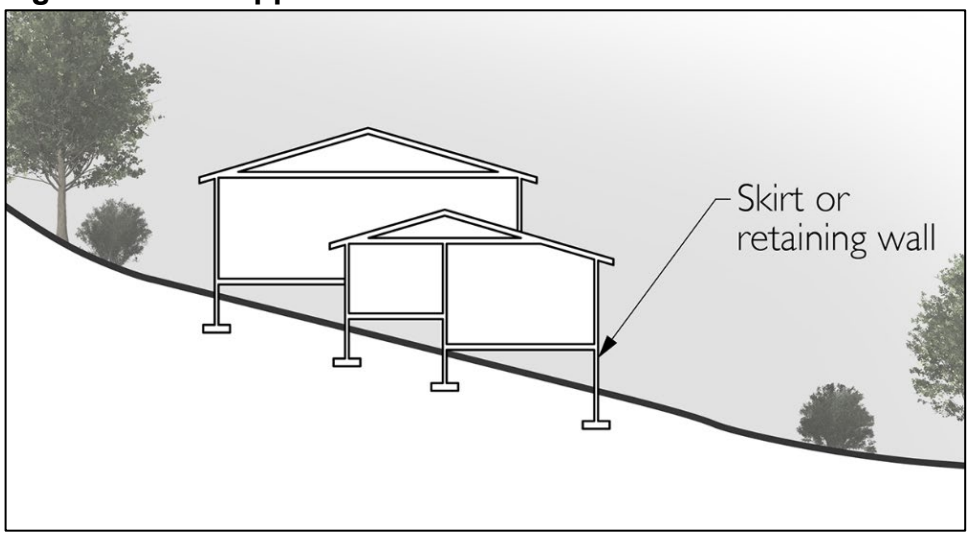
DON'T DO THIS

Buildings placed to conform with natural topography and site's contours (top) minimize the amount of grading and reduce the appearance of bulk.

B. Foundation Design

RH3.4 Stepped Design. Where the existing slope of the development site is 20 percent or steeper, dwellings should exhibit a stepped design that follows the natural terrain and does not stand out vertically from the hillside. Dwellings may be designed with a stepped, pier and grade beam, or a custom foundation to limit grading and alterations to the natural terrain. The Town may grant an exception to this stepped design guideline in accordance with guideline RH 3.5 below.

Figure RH-4: Stepped Foundation



Stepped foundation helps to minimize appearance of mass and bulk.

RH3.5 Deviation from Stepped Design Guideline. The Town may allow a project to deviate from the stepped design guideline in RH3.4 above upon finding that a single-level padded lot will produce a superior design that more fully conforms to the Town's design goals for hillside development. If a deviation is allowed, the single-level padded project should comply with the following guidelines:

- Significant vegetation, rock outcroppings, or other important natural features as determined by the reviewing authority should not be removed or disturbed.
- The vertical height of any resulting graded slope or combination retaining wall and slope visible from a public place or neighboring property should be minimized to the extent possible.
- Pads should be the minimum area to accommodate the structure and a reasonable amount of open space.
- Pad height should be minimized to the greatest extent possible.

Examples of hillside homes with stepped foundations in Orinda (left) and Lafayette (right).

PART 2: GUIDELINES THAT APPLY TO SUBDIVISIONS, NEW HOMES, AND ADDITIONS

The guidelines below apply to subdivisions, new homes, and additions that add an upper story to an existing home and/or increase the floor area of an existing home by 35 percent or more. If an existing home or site conflicts with a guideline, the guideline shall apply only to the addition or change to the site.

RH4: BUILDING DESIGN

See also guidelines ID2, ID13.2, SFR12, SFR2.

A. Building Height and Stepbacks

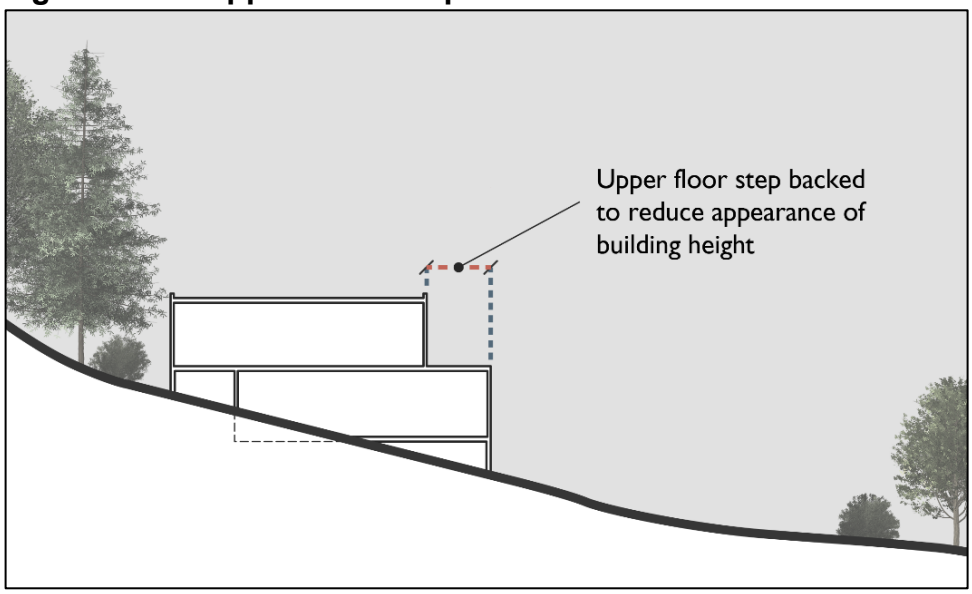
RH4.1 Building Height. Building height should be minimized to reduce visual prominence and blend into the natural setting.

RH4.2 Elevated Padded Lots. In cases where the modified grade of a home site exceeds existing grade, building pads should be established at the lowest elevation possible given site constraints and project objectives. Development projects with elevated building pads shall be subject to heightened design review requirements in accordance with Municipal Code Section 8.72.060.

RH4.3 Stepbacks. On up-sloping lots, upper stories facing a street should be stepped back a sufficient distance from the ground floor to minimize the building's visual height as viewed from the street and other down-slope public places.

Example of hillside homes with upper story stepback in Orinda (left) and Lafayette (right).

Figure RH-5: Upper Floor Stepbacks



Stepping back upper floors on down sloping lots reduces a building's visual height.

RH4.4 Underfloors (Skirt Walls). The vertical distance between the lowest finished floor of an elevation of a building and the finished grade should not exceed 6 feet.

A. Building Mass and Volume

RH4.5 Building Mass. Building design should incorporate techniques to effectively reduce the appearance of mass, bulk and volume where visible from a public place or neighboring property. Such techniques include, but are not limited to:

- Keeping building forms simple and avoiding architectural styles that are inherently viewed as massive and bulky.
- Minimizing the square footage of a home and avoiding large volume buildings forms.
- Avoiding the use of architectural features that increase visual prominence, such as two-story entries, turrets, and large chimneys.
- Avoiding overhanging decks, large staircases and patios formed by retaining walls that make buildings appear more massive.
- Stepping the building foundation and roofs with the natural slope.
- Stepping back second stories so that a difference in wall planes is visible from a distance.
- Creating light and shadow by providing modest overhangs, projections, alcoves, and plane offsets,
- Using vaulted ceilings rather than high walls and ceilings with attics above to achieve a feeling of volume.

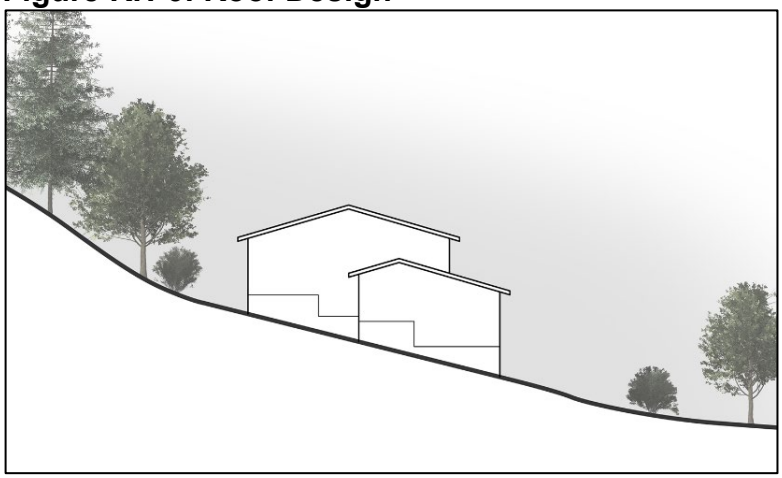
B. Building Elements

RH4.6 Roofs. Roofs should be designed to minimize the visual prominence of buildings and complement the surrounding landscape. This may be accomplished by:

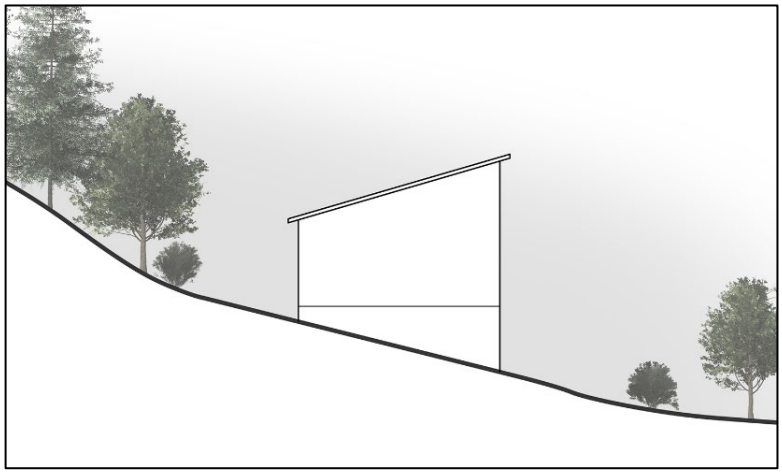
- Orienting the slope of the main roof in the same direction as the natural slope of the terrain.
- Minimizing the use of long, linear roof lines.
- Dividing roof forms into a series of smaller components that reflect the irregular forms of the surrounding natural features.
- Incorporating roof colors with darker earth tones that are less conspicuous when viewed from a distance.
- Reducing roof pitch to no more than 4:12.
- Utilizing hipped roof designs.

Example of roof forms broken into multiple elements in Moraga (left) and a roof that follows the natural slope in Orinda (right).

Figure RH-6: Roof Design



DO THIS



DON'T DO THIS

Roofs that slope in the same direction as the natural terrain (top) minimize the visual prominent of buildings.

RH4. Exterior Colors. Exterior colors for new structures should be coordinated with the predominant colors and values of the surrounding landscape to minimize contrast of structures with their background when viewed from scenic corridors and other public areas.

RH4.7 Window Tinting. Mirror-like window tinting should be avoided.

RH5: GRADING

See also Guidelines ID10, ID11.1, SFR1.6, SFR1.12

RH5.1 Contour Grading. Contour grading techniques should be used to blend with natural slopes and achieve a natural appearance. The following concepts should be utilized:

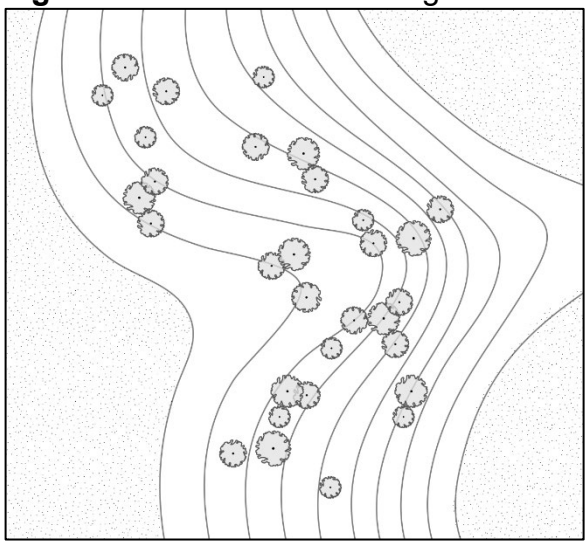
- Hard edges left by cut and fill operations should be given a rounded appearance that closely resembles the natural contours of the land.
- Manufactured slopes adjacent to driveways and roadways should be modulated by berming, regrading, and landscaping to create visually interesting and natural appearing streetscapes. However, preservation of trees and avoidance/elimination of retaining walls where possible is a priority.

- Where cut and fill conditions are created, slopes should be varied rather than left at a constant angle, which creates an unnatural, engineered appearance.
- The angle of any graded slope should be gradually transitioned to the angle of the natural terrain. Creation of new grades slopes, significantly steeper than local natural slopes should be minimized.

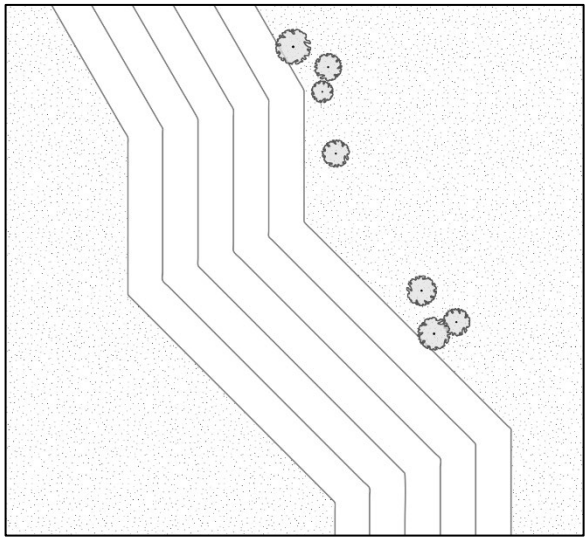
RH5.2 Grading Areas on Lots. Graded areas on lots should not be larger than the area of the footprint of the house, plus that area necessary to accommodate pedestrian and vehicle access, required parking and turnaround areas, and reasonably-sized yard space.

RH5.3 Restoration of Original Topography. After completion of construction, areas of disturbance should be restored as closely as possible to their original topography.

Figure RH-7: Contour Grading



DO THIS



DON'T DO THIS

Contour grading (top) produces a rounded appearance that closely resembles the natural contours of the land.

RH6: LANDSCAPING

RH6.1 Use of Landscaping. Landscaping should be used to maintain the natural appearance of the hillside, blend structures with the natural setting, and screen structures from public and private views. Plant palettes should be consistent with those specified in Design Guidelines Appendix D.

Existing and new landscaping help to blend Orinda home into the natural appearance of the hillside.

RH6.2 Fire Safe Landscaping. Fire safe landscaping should be used consistent with Guideline L1.

RH6.3 Turf Grass. Turf grass should not occupy more than 25 percent of total yard area.

RH6.4 Formal Gardens and Turf Areas. Geometric landscape design visible from public places should be minimized. When visible from a public place, formal gardens (including ornamental plantings, hardscape, and turf areas) should be limited to locations immediately adjacent to the house such as entry ways or small gardens at the rear.

RH6.5 Location of Plant Types. Irrigated landscaping should be concentrated adjacent to the dwelling. Landscaping should transition to more natural planting on the remainder of the lot. Plant species outside of the usable open space immediately adjacent to the dwelling should be indigenous and appropriate for the immediate natural habitat.

RH6.6 Configuration. Plants visible from a public street should be clustered informally to blend with the natural vegetation. Trees and shrubs should not be planted in a straight lines to define property lines, driveways, or edges.

RH6.7 New Trees.

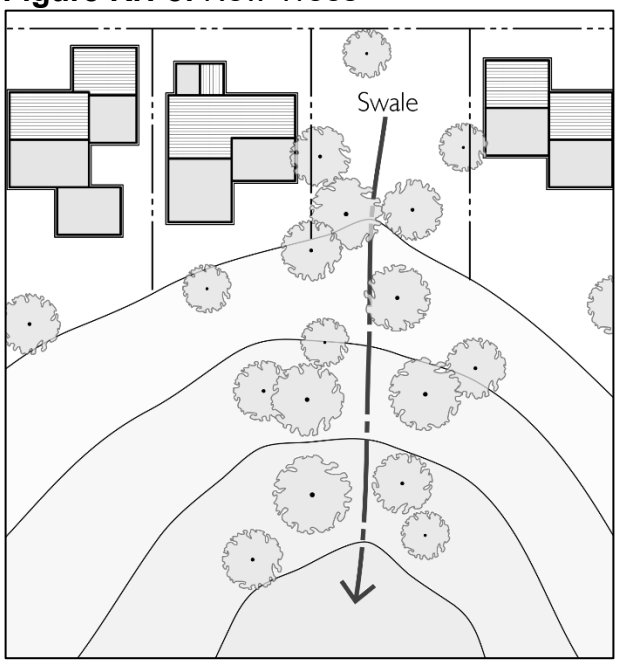
a) Trees should be planted along contour lines in undulating groups to create grove effects which blur the distinctive line of the graded slope.

b) Trees planted in proximity to ridgelines should be similar in height and form to

that of naturally occurring species in the vicinity, and when naturally occurring trees and vegetation do not protrude above a ridgeline, follow a similar pattern.

c) When possible, locate trees at the edges of swale areas and bioretention facilities to more closely reflect natural conditions and gather surface runoff for plant irrigation.

Figure RH-8: New Trees



New trees planted at edges of swale reflect natural conditions

RH7: DRAINAGE

See also guidelines SRC9, L2.3, ID12

RH7.1 Natural Drainage Courses. Natural drainage courses should be preserved with native vegetation intact, should be enhanced to the extent possible, and should be incorporated as an integral part of the site design in order to preserve the natural character of the area. Appropriate creek structure setbacks should be defined and maintained free of any development.

RH7.2 Naturalizing Treatment. Manmade drainage channels should receive a naturalizing treatment such as rock and landscaping so that the structure appears as a natural part of the environment.

RH7.3 Runoff Dispersion. Runoff should be dispersed within the subject property through landscape infiltration to the greatest extent feasible. Runoff concentration that requires manmade drainage channels or engineered drainage facilities should be avoided.

RH7.4 Visibility. Manmade drainage channels should be placed in the least visible locations possible.

RH8: SITE ELEMENTS

A. Driveways

See also Guideline ID13.6, ID13.9, SFR1.7, SFR1.8, SFR1.9

RH8.1 Driveway Location. Driveways should be located to minimize the need for grading and should align with the natural contours of the land to the greatest extent possible.

RH8.2 Driveway Width. Driveways widths should be the minimum required by Town regulations. Common driveways shared by multiple units should be used to the extent possible.

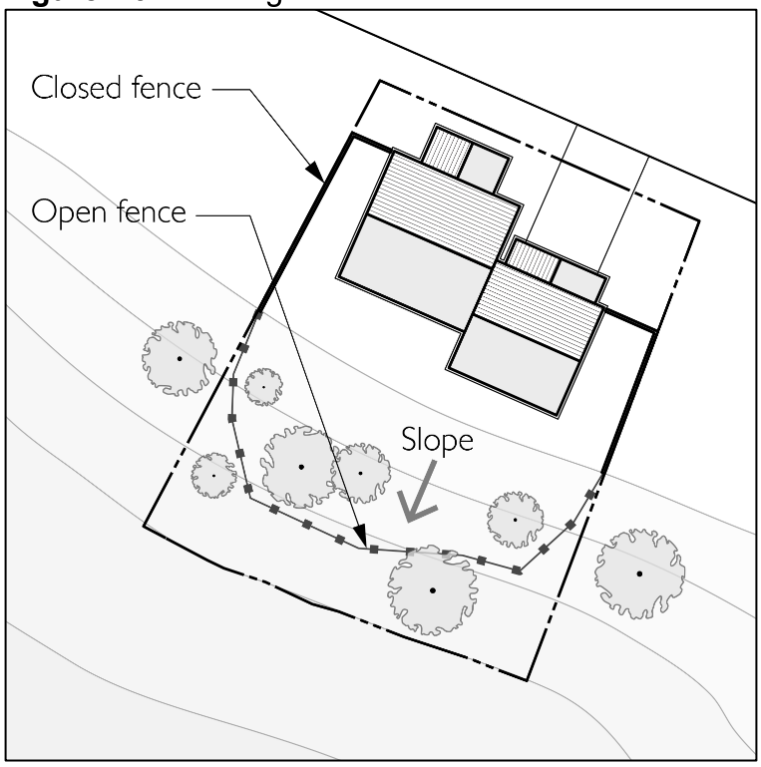
RH8.3 Driveway Material. Driveways should be darkened, colored, or textured to exhibit a natural appearance and to blend in with the surroundings.

B. Fences

RH8.4 Solid Fencing. Solid fencing should only be used to enclose the immediate usable outdoor space around a house and should not be used to delineate property lines.

RH8.5 Perimeter Fencing. Where fencing is needed to delineate private property from public or common areas, fencing should remain visually open (i.e., split rail or wire deer fencing) in order to minimize the visual "ribbonlike" effect of fencing on the hillsides. Perimeter chain link fencing is prohibited.

Figure R9: Fencing



Fencing along perimeter of parcel remains visually open to minimize a "ribbonlike" effect on the hillside

C. Retaining Walls
See also Guidelines ID11.

RH8.6 Materials. Retaining walls that are visible from a public street should blend with the natural hillside environment and a promote a semi-rural character through veneers of natural stone, integrally-colored concrete, textured surfaces, and other similar treatments.

RH8.7 Follow Topography. Retaining walls should blend with the natural topography, follow existing contours, and be curvilinear to the greatest extent possible.

RH8.8 Landscaping. Landscaping should be provided adjacent to retaining walls visible from a public street and should include a combination of native trees and shrubs to screen the retaining walls from view to the greatest extent practicable.

D. Outdoor Lighting
See also Guideline ID6.

RH8.9 Site Lighting. Outdoor lighting on private property which is visible from public streets should be indirect or incorporate full shield cut-offs. Light sources should not be seen from adjacent properties or public rights-of-way.

RH8.10 Street Lighting. In order to minimize light pollution and maintain enjoyment of the night sky in hillside areas, street lighting should not exceed the minimum illumination required by the Town and other public agencies unless determined necessary by the Town to protect the public health, safety and welfare.

5 COMPLEMENT EXISTING LANDSCAPING (L)

Moraga values abundant landscaping and high design standards.

L1 FIRE SAFE LANDSCAPING

The Fire District highly recommends the use of fire safe landscaping in residential, commercial, and open space areas that might be threatened by fires, such as sloped lots.

In order to ensure that vegetation does not promote the spread of fire between residences or between open space, development should take into consideration fire safety in the design of landscapes. The Town shall consider the following factors when reviewing development proposals:

L1.1 On residential lots located adjacent to open space or heavily wooded areas, trees should be planted no closer than 15 feet from the exterior wall of a residence.

L1.2 Consideration should be given to avoiding flammable trees and shrubs where possible. Selection should be from those listed as fire resistant in Appendix B. Consult the Moraga Fire Protection District for highly flammable plant species to be avoided such as certain pine, juniper, and eucalyptus species.

L1.3 Landscaping should be properly irrigated to assure that plants retain their fire retardant capability, but shall not be over watered so as to create runoff from the site.

L1.4 On residential lots located adjacent to open space or heavily wooded areas, landscaped areas should be maintained with a “wet band” (spray irrigation) that is a minimum of 30-100 feet in width, where setbacks allow. For fire safety consideration contact the Fire District for distance guidelines.

L1.5 The use of shredded bark should be avoided; bark chips are recommended. Suggested minimum depth of chips is 3 inches.

L1.6 The Town will weigh the merits of water conserving landscapes in conjunction with fire safety and stormwater management.

L2 SINGLE-FAMILY RESIDENTIAL LANDSCAPING AND IRRIGATION

L2.1 Residential properties should be landscaped and irrigated in accordance with the natural environment.

L2.2 New irrigation systems shall include automatic rain shut-off controller devices.

L2.3 Irrigation runoff shall not be discharged into the storm drain system. Therefore, over watering of the landscape shall be avoided. Opportunities shall be provided for biofiltration that routes stormwater through landscaping and then to an appropriate drainage facility.

L2.4 Drought tolerant plant species are encouraged as they use less water and are often fire safe.

L2.5 Drought tolerant, fire resistant, native tree and shrub species should be selected from one of the palettes in Appendix B. The Town of Moraga encourages planting of native species over non-native species and encourages applicants to refer to the Native Plant Society website at *www.nps.org* to check that the plants that you select are not invasive species.

L3 MULTI-FAMILY AND COMMERCIAL LANDSCAPING AND IRRIGATION

L3.1 Landscaped areas should be planned as integral parts of the project and not simply as leftover green spaces to be planted on the site.

L3.2 Areas not covered by buildings or structures enclosed for storage or used for paved walks, alleys, or drives should be completely landscaped and irrigated.

L3.3 Parking lots should be landscaped through the use of concave islands and medians swales designed to accommodate trees, shrubs, and ground cover while providing drainage and biofiltration of concentrated stormwater. Fast growing deciduous or evergreen trees should be planted at a ratio of one tree for every 4-6 parking spaces, to create maximum summer shade.

L3.4 Landscaping should permit adequate sight distance for motorists and pedestrians entering and exiting the site and shall not interfere with parking lot and circulation effectiveness.

L3.5 Landscaping should be developed to relieve solid, unbroken elevations and soften continuous wall expanses as well as complement a building or building cluster.

L3.6 Significant landscaping should be provided around the perimeter of the site.

L3.7 Dense landscaping should be incorporated into any project to screen unattractive views and features such as storage areas, trash enclosures, parking lots, public utilities, and other elements that detract from the appearance of the surrounding area.

L3.8 Tree and shrub planting may be grouped together in order to create stronger accent points or a sense of place.

L3.9 Initial landscaping should be of a size and quality that a mature appearance will be attained within three years of planting. At least 25% of the proposed trees on the site are to be a minimum of 24" box size and the remaining trees a minimum of 15-gallon size.

L3.10 Lawn areas should be limited to 25% of the total landscaped areas and must be a drought tolerant fescue variety, with exceptions for schools, parks and public recreational areas. Percentage may be increased for biofiltration.

L3.11 Significant trees existing on the property should be protected retained and integrated with the design where appropriate.

L3.12 Deciduous trees along southern building exposures, coniferous and broadleaf evergreen trees along East and West building exposures and evergreens along the North exposures are recommended to conserve energy usage within structures.

L3.13 All plant materials (including street trees and planting within the public right-of-way) should be watered with an automatic irrigation system. Provision shall be made for watering planting boxes and individual planters raised from the ground.

L3.14 Water-conserving system design and materials and drip irrigation should be used wherever appropriate.

L3.15 New irrigation systems shall include automatic rain shut-off controller devices.

L3.16 Plants from the palettes in Appendix B should be selected. The Town of Moraga encourages planting of native species over non-native species and encourages applicants to refer to the Native Plant Society website at *www.cnps.org* to check that the plants that you select are not invasive species.

6 ENHANCE TOWN'S SCENIC CORRIDORS (SC)

This section establishes design guidelines for development within 500 feet of a major scenic corridor, as measured from the edge of the public right-of-way. The major scenic corridors designated in the General Plan include: Bollinger Canyon Road, Camino Pablo, Canyon Road, Donald Drive (along the ridgeline of Mulholland Hill), Moraga Road, Moraga Way, Rheem Boulevard, and St. Mary's Road. The purpose of these guidelines is to preserve and enhance the semi-rural character of Moraga's scenic corridors and protect scenic vistas of distant hillsides as viewed from scenic corridors.

For guidelines that apply to development in hillside areas located outside of scenic corridors, see Section 4: Protect Ridgelines and Hillside Areas (RH).

SC1 APPLICABLE TO ALL SCENIC CORRIDOR DEVELOPMENT

SC1.1 Medians in scenic corridors should be planted and landscaped except where drivable medians are necessary. See Appendix B for recommended plants and Appendix C for conceptual examples for aesthetic enhancement.

SC1.2 Wide and curved trails should be used along scenic corridors instead of sidewalks wherever possible. Both trails and sidewalks should be separated from roadways with plantings. See Appendix C.

SC1.3 A greenbelt should be established between the scenic corridor major road and a parking area or building that is located adjacent to the road. The greenbelt must be landscaped and appear to be natural (i.e. a high percentage of the ground area could be a mounded redwood bark or stone covered area as long as plants provide a reasonable amount of massing to create a screening effect). All landscaped areas shall be appropriately irrigated to maintain healthy plants while preventing runoff from over watering.

SC1.4 Trees should be planted on medians and along scenic corridors except where traffic views are blocked. Where tree planting next to scenic corridors is otherwise not possible, planters for trees should be located in street parking zones. See Appendices B and C. Native grass areas are acceptable along the scenic corridor where formal landscaping is inappropriate.

SC1.5 The greenbelt separating a single-family residence from a scenic corridor roadway should have a minimum depth of 20 feet. This depth can be lessened if mitigated by shrubbery, trees and/or other acceptable elements or landscaping.

SC1.6 Landscaped mounds or berms are encouraged between the scenic corridor roadway and large parking areas and may be steeper than 3:1 if appropriately landscaped and irrigated.

SC1.7 Commercial shopping centers shall have a twelve-foot or greater depth of greenbelt between the road and parking area or building, exclusive of the public sidewalk.

SC1.8 Greenbelts should have a balance of high and low plants to give a natural look to the landscaped area. At no time will a landscaped area (other than grass) exceed 50 lineal feet along the scenic corridor road without a change in massing, character, and color.

SC1.9 Religious or educational institutions, apartment complexes, professional buildings, commercial buildings, and residences along scenic corridors should have a minimum 15-foot greenbelt depth to the property line at adjacent streets (exclusive of sidewalk) with moderate landscaping.

SC1.10 A property owner may be required to upgrade existing conditions when major work is accomplished on a parcel that is within 500 feet of the center line of a major scenic corridor.

SC1.11 In order to enhance the landscaping along designated scenic corridors, new development within 500 feet of these corridors should include trees and shrubs from one of the palettes in Appendix B. The Town of Moraga encourages planting of native species over non-native species and encourages applicants to refer to the Native Plant Society website at www.nps.org to check that the plants that you select are not invasive species.

SC1.12 Roadside landscaping should be selected from one of the palettes in Appendix B and only lightly trimmed except where street signs and other directional signs are blocked from view.

SC1.13 Existing overhead lines on both private and public property along scenic corridors should be converted to underground when substantial redevelopment is proposed.

SC1.14 Signage, bus shelters, monuments and other site elements should be of semi-rural character and be rustic looking, preferably stone. See Appendix C.

SC1.15 Storm water runoff swales should be used along roadsides and medians of scenic corridors instead of curbing to slow storm water runoff and enhance the semi-rural look. See Appendix C.

SC1.16 Design shall be consistent with the Moraga Municipal Code Section 8.132.

SC1.17 Viewsheds, including but not limited to close up and distant views, ridgelines, hillsides and mature native tree groupings should be protected along the Town's scenic corridors to retain the Town's semi-rural character.

SC2 SCENIC VISTAS

The guidelines in this section apply to development within the 500-foot buffer of a scenic corridor with the potential to obstruct public views of Moraga's scenic vistas. "Scenic vistas" means designated ridgelines as shown in General Plan Figure CD-1(Designated Ridgelines) and hillsides visible below these ridgelines. Compliance with these guidelines shall be evaluated by considering potential view impacts from the centerline of the applicable scenic corridor public right-of-way.

Scenic vista guidelines should be applied in a manner that balances scenic vista protection with other Town goals and policies. For example, the Moraga Center Specific Plans (MCSP) calls for infill development along scenic corridors to increase housing choices and increase economic vitality. These scenic vista guidelines should not be interpreted to prohibit new

development within the MCSP boundaries that is otherwise consistent with the MSCP and implementing regulations. Instead, scenic vista guidelines should be applied to a project together with other Town policies and regulations in a balanced manner that addresses all Town goals and policies to the maximum extent possible.

SC2.1 **General Intent.** Development in scenic corridors should be located and designed to preserve and enhance public views of scenic vistas, both near and distant.

SC2.2 **Front Setbacks.** Where appropriate for the location and surrounding context of a development site, front building setbacks should be increased to minimize obstruction of scenic vistas.

SC2.3 **Upper Story Stepbacks.** Upper stories fronting a scenic corridor should be stepped back behind the ground floor if a stepped back design minimizes obstruction of scenic vistas.

SC2.4 **Height and Mass Variation.** Development should minimize view obstructions through variation in building heights and volumes so that views of scenic vistas remain visible above lower sections of building.

SC2.5 **Building Separation.** Where appropriate, buildings should be set back from one another to maintain views of scenic vistas through the site.

SC2.6 **Accessory structures.** Fences, walls, freestanding signs, and other accessory structures should complement the design character of the site and minimize impacts on scenic vistas.

SC2.7 **Landscaping.** Landscaping that at maturity will obscure views of scenic vistas is discouraged. Low shrubs and groundcover should be used to ensure permanent preservation of views. Trees and other taller plants should be carefully placed to minimize view impacts and where appropriate frame public views to scenic vistas.

SC2.8 **Public Gathering Places.** Publicly accessible gathering places, such as outdoor seating areas and courtyards, should be located and designed to maximize unobstructed views of scenic resources for visitors.

7 MINIMIZE THE IMPACTS OF DEVELOPMENT (ID)

To the extent possible, development should be concentrated in areas that are least sensitive in terms of environmental and visual resources, including: a) areas of flat or gently sloping topography outside of flood plain or natural drainage areas; b) the Moraga Center and Rheem park area; c) Infill parcels in areas of existing developments.

ID1-7 APPLICABLE TO ALL DEVELOPMENT

ID1 Downhill or uphill portions of any project shall provide landscaped treatment to address potential erosion, to be in harmony with adjacent developments, and to provide a complimenting view from distant horizons. Dense native landscaping should be used to blend hillside structures with the natural setting.

ID2 Roofing materials shall be benign and non-corrosive, such as slate, steel, stone, terra cotta tiles, fiberglass composition shingles, etc. Copper materials shall not be used for any component of the roofing system (roofing material, gutters, downspouts, splash pads, screens, etc.). Solar systems on roofs are encouraged and not subject to Design Review.

ID3 Wind barriers, shade, sound absorption, dust abatement, glare reduction, and proper drainage should be provided on site.

ID4 Buildings should be placed on the site so as to permit passive solar design, ample room for usable yard areas, adequate landscaping, and proper drainage between and around buildings.

ID5 Geologic hazards shall be addressed:

a. Construction should not take place in geologic hazard areas identified as landslides, springs, or earthquake fault zones.

b. Risk of off-site geologic property damage should be minimized by locating development away from areas which are vulnerable to slope failure.

c. Professional evaluation of soil conditions and potential geologic hazards should be completed for all new homes.

ID6 The level of lighting should not exceed the needs for security and safety or detract from the aesthetics of the development.

a. Outdoor lighting should be related to the design of the structure.

b. Outdoor light fixtures should be designed and mounted so that the source of light has minimal impact off site.

c. Outdoor lighting should be directed inward toward the property and may require additional screening to avoid spillage onto adjacent residential properties.

ID7 Design shall be consistent with the Moraga Municipal Code section 13.04.090.

ID8 SWIMMING POOLS

ID8.1 The draining of all swimming pools shall be directed to the sanitary sewer system whenever feasible and be conducted in compliance with the permitting and standards established by Central Contra Costa Sanitary District. Overflow drains from swimming pools shall be directed to a landscape area or manufactured treatment system prior to connecting to the storm drain system. Best Management Practices (BMPs) shall be used to manage overflows.

ID8.2 Design shall be consistent with the Moraga Municipal Code section 13.04.060d.

ID9 PAVING

ID9.1 Impervious surfaces shall be minimized through site design and building methods. Directly connected impervious surfaces shall be minimized to avoid excessive concentrated stormwater runoff. Any runoff from impervious surfaces shall be directed to pervious areas or landscaped depressions.

ID9.2 Impervious paving may be reduced by using permeable materials for pedestrian walkways, parking facilities, and areas with light traffic. Examples include:

a. Unit pavers-on-sand: turf block, brick, natural stone, or concrete unit pavers

b. Poured pervious surfaces: pervious concrete or pervious asphalt

c. Granular materials: crushed shells, gravel, aggregate base, cobbles, or wood mulch

ID10 GRADING

ID10.1 Grading for any purpose may be permitted only in accordance with an approved development plan that is found to be geologically safe and aesthetically pleasing.

ID10.2 Where the pre-development slope is less than 20% a grading permit may be required. See the Moraga Municipal Code 14.08.010 for details.

ID10.3 When the pre-development slope is greater than or equal to 20%, development shall be avoided, but may be permitted if supported by site-specific analysis. When grading land with a slope of 20% or more, soil displacement and retaining wall use shall be minimized by using contour grading techniques. In MOSO areas, development shall be prohibited on slopes with an average gradient of 20% or greater. Design shall be consistent with Moraga Municipal Code Title 14.

ID10.4 Land with a pre-development average slope of 25% or greater within the development area shall not be graded except as authorized by the Town Council and only where it can be shown that a minimum amount of grading is proposed in the spirit of, and not incompatible with, the intention and purpose of the Moraga General Plan. No new residential structures may be placed on after-graded average slopes of 25% or

steeper within the development area except that this provision shall not apply to new residential structures on existing lots that were either legally created after March 1, 1951 or specifically approved by the Town Council after April 15, 2002.

ID10.5 Cut slopes should be placed behind buildings or other structures where they will be screened.

ID10.6 Preserve the natural topography of the land, especially at the horizon:

- Round off graded slopes, in a manner that conforms to the natural contours of the land and to the surrounding terrain. Sharp angles produced by earth moving, specifically at the top and toe of graded slopes shall be avoided.
- Slopes shall be contour graded to achieve a natural appearance.
- Slopes shall be blended with the contours of contiguous properties and create a smooth transition.
- Grading shall minimize scars due to cuts, fills, and drainage benches on natural slopes.

Neither cuts nor fills shall result in slopes steeper than 3:1 (horizontal to vertical), except where natural slopes are steeper. Where steeper slopes are unavoidable, special mitigation measures shall be incorporated into the design construction and maintenance of the slopes.

ID11 RETAINING WALLS

ID11.1 Retaining walls (excluding foundation retaining walls) and other man-made grading features may only be used to mitigate geologic hazards when:

a. required to decrease the possibility of personal injury or property damage

b. designed to blend with the natural terrain and avoid an artificial or structural appearance

c. appropriately screened by landscaping

d. designed to avoid creating a tunnel effect along roadways and to ensure unrestricted views for vehicular and pedestrian safety

e. designed to ensure minimal public and/or private maintenance costs

ID11.2 Exterior retaining walls shall be limited to five feet in height, unless it is visible from off site, in which case it shall be no higher than three feet. The total height of a retaining wall and fencing on top of the wall shall not exceed eight feet without approval of the Planning Commission acting as the Design Review Board. A guardrail or handrail (provided a solid fence does not support it) may be located on top of the retaining wall.

ID11.3 A retaining wall exceeding 3 feet requires professional engineering, a building permit, and may require a grading permit. Design Review Board approval is required if the retaining wall is visible from off-site.

ID11.4 The horizontal depth of the terraces between stacked retaining walls should be a minimum of twice the height of the larger adjacent wall.

ID11.5 Retaining walls should be built a minimum of three feet from a property line.

ID12 STORMWATER GUIDELINES

ID12.1 All residential buildings, in aggregate, may cover no more than 33% of the lot area. Exceptions may be considered for cluster and multi-family residential projects. For project designs that cluster the new structures on only a small portion of a large site, the percentage may be calculated using the entire site, rather than the lot size.

ID12.2 Regulations set forth by the San Francisco Bay Regional Water Quality Control Board (RWQCB)[3] shall apply to all new or redeveloped residential and commercial projects:

a. If the project creates or replaces more than 10,000 square feet of impervious surface;

b. Relative to the 10,000 square foot threshold, if 50% or more of the existing impervious surface is replaced then 100% of the site must comply with Provision C.3 of the Town's Stormwater Permit; or

c. Relative to the 10,000 square foot threshold, if less than 50% of the existing impervious surface is replaced, then Provision C.3 of the Town's Stormwater Permit only applies to said portion.

Exemptions include: Single-family homes that are not part of a larger development and routine maintenance work such as replacement or resurfacing of roofs and pavements. All new projects must retain pre-project hydrology. All applicable developments must comply with Provision C.3 of the Town's Stormwater Permit. These requirements are separate from—and in addition to—any requirements for erosion and sediment control and for pollution prevention measures during construction (see also the Moraga Municipal Code section 13.04 and Town Council Resolution 9-96).

ID12.3 For developments whose site constraints prohibit the use of landscape infiltration, manufactured treatment systems can be inserted into the conventional storm drain system. A detailed Operation and Maintenance Plan must be submitted with the design application (see www.ccleanwater.org/construction for the *C.3 Stormwater Guidebook*). Options include:

a. Catch basin or inlet inserts

[3] Please see the RWQCB Order No. 99-058 and Order No. R2-2003-0022.

b. Separators (oil-grit or oil-water)

c. Media filters (sand, gravel, peat, compost, activated carbon, fabric, or resin)

d. Various filtration treatment devices

ID12.4 Drainage should follow natural flow patterns and, where appropriate, plans should develop wide area flow patterns, rather than concentrating flow at one point.

ID12.5 In new development only BMP-treated stormwater shall be discharged into the Town's storm drain system.

ID12.6 A sufficient number of drains should be provided for retaining wall backdrains and in the crawl space under the foundation to provide an outlet for water that may accumulate behind retaining walls and beneath the house and to drain any areas that may be divided by internal grade beams. Such drainage facilities shall be directed to a landscape area or manufactured treatment system prior to connecting to the storm drain system. Design shall be consistent with the Moraga Municipal Code section 13.04.060d.

ID13 NEW DEVELOPMENTS AND SUBDIVISIONS

ID13.1 Subdivision layout should retain natural topographic features and maintain the Town's semi-rural character.

ID13.2 The color schemes of homes on adjacent lots within 200 feet of one another should be compatible with and not duplicate one another.

ID13.3 New road construction should adapt to topography and natural features.

ID13.4 The impact of increased impervious surface of new roads should be mitigated by paving only the minimum width (20 feet), as required by the local Fire Department for roads that will not accommodate on-street parking. For streets with parking available on both sides the width shall be 36 feet.

ID13.5 Stormwater should be treated before it enters the storm drain system.

ID13.6 When appropriate, shared driveways should be used for neighboring clusters of houses and pervious parking areas shall be used.

ID13.7 Sidewalks, crosswalks, and landscaped multi-use trails shall be incorporated into new developments to encourage alternatives to automobile use. Connections shall be made to adjacent neighborhoods and, where feasible, commercial areas.

ID13.8 Utility lines for new subdivisions shall be installed underground to maintain natural vistas.

ID13.9 Whenever possible, roads and driveways should be constructed parallel to existing topographic contours, and, if necessary, split in order to reduce the area of cut on hillsides or to preserve trees or other significant features.

ID13.10 Street lighting in hillside and ridgeline areas should be unobtrusive and designed to reflect the natural surroundings.

ID13.11 Hillside lots should be larger than lots on naturally level terrain.

ID13.12 The same or similar elevations should not be placed within 300 feet of each other along the street without altering the direction of the roof.

ID13.13 Residences in new subdivisions should meet Build It Green or equivalent requirements for new residences. The Build it Green requirements are attached herein as Appendix A

8 THOUGHTFULLY DESIGN SINGLE-FAMILY RESIDENTIAL NEIGHBORHOODS (SFR)

Residential development shall preserve the Town's existing scale, character, and quality, and provide an inviting pedestrian environment that promotes walking and biking between neighborhoods.

SFR1 SINGLE-FAMILY RESIDENTIAL SITE PLANNING

The following guidelines pertain to all single-family residential projects (new homes or additions):

SFR1.1 Not more than two (2) two-story units should be placed side-by-side unless topographic and/or architectural considerations justify exceptions or unless the two-story portion of the house is not visible from off site. (Architectural considerations may include partial second stories and setback of second stories.)

SFR1.2 Front setbacks should be varied, with no more than two adjacent units having the same setback. Setback variation shall be a minimum of three feet.

SFR1.3 Accessory structures should complement the main structure unless the accessory structure cannot be seen from neighboring properties. Landscaping may be required to screen the accessory structures from view from off site.

SFR1.4 On padded lots total building heights greater than 28 feet for two-story homes and 19 feet for single-story homes shall require special siting or design treatment to mitigate height.

SFR1.5 The architectural design motif should continue on all sides of a building. This motif should be compatible with but distinct from adjacent homes.

SFR1.6 Development of residential lots should take advantage of natural features and unique topography of the site through split level pads or natural contour grading.

SFR1.7 Pervious surfacing is encouraged for all driveways. Driveways longer than 50' or wider than 16' should be constructed of pervious materials. See Guideline ID9.2. Multiple-car garages are encouraged to use flared driveways to minimize impervious surface coverage.

SFR1.8 Where topography allows, driveways should slope toward a depressed lawn or other vegetated landscape feature to allow for biofiltration.

SFR1.9 Circular or hammerhead driveways may be considered for homes that front on busy streets.

SFR1.10 On padded lots there should be a minimum of 10' near level clearance area from any top or toe of a slope to any structure for access.[41] On padded lots there should be a minimum of 6' near level clearance area on any 3 sides of any building or structure.

[1] Clearance is measured from the exterior of the structure or any protruding portion (i.e., chimney, bay window, etc.) to the nearest point on the property line or change in slope, whichever is closer.

SFR1.11 There should be a near level area of at least 25' x 40', other than the front yard, for usable yard area.

SFR1.12 On non-padded lots the house shall be designed to reflect the natural contours of the site, keeping grading to a minimum.

SFR1.13 On padded lots walkways should be set back a minimum of one foot from the top of slope.

SFR2 SINGLE-FAMILY RESIDENTIAL BUILDING DESIGN

SFR2.1 A harmonious relationship with the surrounding neighborhood should be created through the use of compatible design schemes and scale. See Appendix D for the single family residential floor area ratio (FAR) guidelines.

SFR2.2 The color schemes of homes on adjacent lots should be compatible and not duplicate one another.

SFR2.3 Exterior building design on all elevations should be coordinated with regard to color, texture, materials, finishes and architectural form and detailing to achieve design harmony and continuity.

SFR2.4 The number of different materials on the exterior face of the building should be limited. Generally, a variety of masonry materials should be avoided. All chimneys on the same home should be similar in architectural style and materials.

SFR2.5 Roof shape, color, and texture should harmonize with the color and architectural treatment of exterior walls.

SFR2.6 The side yard setback shall be no less than the minimum permitted by the Zoning Ordinance and shall be increased by one additional foot for each foot of end wall height greater than 20 feet. End wall height is the maximum vertical height from finished grade to outer roof surface at the side yard. Chimneys, dormers, and other architectural elements are excepted from this limitation. The skirt wall is counted as part of the height measurement.

In any individual case, the Planning Commission (acting as the Design Review Board or in its regular planning capacity) may require a larger side yard, provided they can make appropriate findings relating to the following types of conditions:

a. Major ridgeline (as defined by the General Plan);

b. Scenic corridor;

c. General Plan land use or zoning designation;

d. Proposed use of structure, in relation to surrounding uses;

e. Visibility of structure(s) from off site, due to placement (or absence) of permanent screening;

f. Elevation of the lot, compared with the elevation(s) of abutting street(s) and/or other properties;

g. In fill lot or a lot adjacent to an established subdivision;

h. Slope or grade of lot, in relation to abutting streets.

SFR2.7 Although the maximum height for any structure is set by the Zoning Ordinance at thirty-five feet, a lower height may be required, based on the special circumstances of an individual lot.

SFR2.8 Conscious efforts should be made to recognize building security as a design element in new construction.

SFR2.9 Any blank wall that is without windows and is more than 15 feet long or 180 square feet in area, whichever is less, should have special design treatment.

SFR2.10 The overall height of the deck skirt[1] should not exceed six feet, except for cantilevered decks from the second story. The maximum height for exposed posts supporting a ground level deck should be four feet where visible from off site.

SFR2.11 The following requirements specifically address skirt height treatment, when any portion of the skirt is visible off-site:

a. Skirt heights of four feet or less need no special treatments;

b. Skirt heights between four and six feet shall receive special treatment, such as water table trim, other patterns or different surface treatment which could include other building materials, all consistent with the overall architectural concept;

c. The visible portion of a concrete footing or grade beam shall not exceed twelve inches above the lowest adjacent ground surface;

d. No skirt height that is greater than six feet shall be visible off-site.

SFR2.12 Decks that require special consideration due to the topography and hillside design of the home, which includes decks from the first and second floor of the residences. Such decks should comply with the following standards:

a. Decks that exceed 6 feet in height shall be substantially screened by landscaping. The Planning Commission acting as the Design Review Board may require the property owner to enter into a landscape installation and maintenance agreement with the Town.

b. Landscaping shall mitigate the visual impact of a deck as viewed from adjacent neighbors.

[1] "Skirt height" is defined as the distance between the finished floor and the ground.

c. Support posts should be setback from the face of the deck to minimize the height of posts and provide visual relief.

d. Diagonal or cross bracing of support posts shall not be permitted.

e. Decks shall be consistent with the scale and design of the home.

SFR2.13 The design of the mailbox should complement the style and materials of the principal building on the site.

SFR2.14 Roof leader drains shall be routed through a biofilter, sand filter, or plant box.

9 THOUGHTFULLY DESIGN MULTI-FAMILY RESIDENTIAL DEVELOPMENTS (MFR)

Multi-family developments should be centrally located, well designed, and appropriate to Moraga's semi-rural character.

MFR1 MULTI-FAMILY RESIDENTIAL SITE PLANNING

MFR1.1 A harmonious design relationship should be achieved between existing and proposed adjoining developments by avoiding both excessive variety and monotonous repetition.

MFR1.2 Storage yards, parking areas, service areas, and other ground-level paved areas should be screened from off-site views by perimeter and tree canopy planting.

MFR1.3 Permanent trash enclosures should be located and designed to be in architectural harmony with the principal structures on the site. Exterior trash and storage areas, service yards, loading docks, and ramps should be screened from the view of all nearby streets and adjacent structures. Infiltration shall be avoided for all outdoor work or storage areas, such as loading docks, fueling areas, car or equipment washes, and garbage receptacles. All runoff from these areas shall be concentrated and routed to the sanitary sewer. Outdoor work areas shall have a perimeter berm to prevent stormwater inflows. Outdoor garbage receptacles (trash cans and dumpsters) shall be housed under a roof or other covered structure.

MFR1.4 Air conditioning units and associated electrical and plumbing service connections should be screened by parapets, walls, fences, or other approved screening.

MFR1.5 Utility transformers that are outside the public right-of-way should be placed underground and adequate access should be provided for proper maintenance. Any exception, proposing an above ground installation, must include adequate screening so as not to be viewable from the scenic corridor or other prominent public view and must be approved by the Planning Commission.

MFR1.6 Multi-family housing developments shall provide adequate parking for residents and visitors. Parking lots shall be designed to make efficient use of space. Parking lot locations at the side or rear are encouraged.

MFR1.7 New multi-family developments shall be situated near commercial centers, transit stops, parks, and schools. Public entry points shall be located close to the sidewalk to create a more pedestrian-oriented development.

MFR1.8 Private and shared outdoor open space shall be provided for residents in new multi-family residential developments. This outdoor space should accommodate play areas for children and pets, picnic and barbeque facilities, and a visually appealing environment.

MFR2 MULTI-FAMILY RESIDENTIAL BUILDING DESIGN

MFR2.1 Mechanical and electrical equipment, including rooftop units, should be designed as an integral part of the building or site design and be properly screened.

MFR2.2 Exterior wall venting should complement the building design.

MFR2.3 Roof penetrations should be visually minimized.

MFR2.4 Roof leader drains shall be routed through a biofilter, sand filter, or plant box.

MFR2.5 Accessory equipment capable of generating noise and vibrations should be properly insulated and the noise and vibrations should not be apparent from adjacent properties or the public right of way.

MFR2.6 Large building masses should be avoided.

MFR2.7 Architectural style should reflect and enhance the character of surrounding neighborhoods.

10 PROMOTE COMMERCIAL CENTERS AS COMMUNITY PLACES (CC)

High quality commercial districts should serve as important community focal points, gathering places, and activity centers.

CC1 COMMERCIAL SITE PLANNING

CC1.1 A harmonious design relationship should be achieved between existing and proposed adjoining developments by avoiding both excessive variety and monotonous repetition.

CC1.2 Storage yards, parking areas, service areas, and other ground-level paved areas should be screened from off-site views by perimeter and tree canopy planting.

CC1.3 Permanent trash enclosures should be located and designed to be in architectural harmony with the principal structures on the site. Exterior trash and storage areas, service yards, loading docks, and ramps should be screened from the view of all nearby streets and adjacent structures. Infiltration shall be avoided for all outdoor work or storage areas, such as loading docks, fueling areas, and garbage receptacles. All runoff from these areas shall be directed to the storm drain system and the operations from these areas shall be conducted to prevent stormwater from becoming contaminated. If stormwater contamination cannot be prevented from the operations in these areas, they shall be connected to the sanitary sewer and effective engineering controls shall be used to ensure that no stormwater is discharged to the sanitary sewer system (e.g. roof over the process area, engineered diversion valve between the sanitary sewer system and storm drain system). The connection to the sanitary sewer system from these areas shall have the necessary pretreatment equipment to meet Central Contra Costa Sanitary District's standards (e.g. grease or oil/sand interceptor). Outdoor work areas shall have a perimeter berm to prevent stormwater inflows. Outdoor garbage receptacles (trash cans and dumpsters) shall be housed under a roof or other covered structure.

CC1.4 Air conditioning units and associated electrical and plumbing service connections should be screened by parapets, walls, fences, or other approved screening.

CC1.5 Utility transformers that are outside the public right-of-way shall be placed underground and adequate access shall be provided for proper maintenance. Any exception, proposing an above ground installation, must include adequate screening so as not to be viewable from the scenic corridor or other prominent public view and must be approved by the Planning Commission.

CC1.6 Benches and other seating should be provided for the public at commercial centers. Attractive landscaping should be maintained around these seating areas to create an inviting social environment within the shopping district.

CC1.7 Commercial centers should maintain a high level of pedestrian-oriented amenities, including:

a. Sidewalks along storefronts and around the perimeter of the commercial center and between retail and office uses, ensuring a safe path for pedestrians around the center and to/from transit stops;

b. Safe walkways through parking lots that use different paving materials to differentiate between parking and pedestrian areas;

c. Clearly marked crosswalks at appropriate locations in parking lots to allow pedestrian traffic to safely move through vehicle paths;

d. Permanent bicycle racks, benches, recycling and trash receptacles; and

e. Landscaping with flowering species and shade trees for summer months.

CC2 COMMERCIAL BUILDING DESIGN

CC2.1 Mechanical and electrical equipment, including rooftop units, should be designed as an integral part of the building or site design and be properly screened.

CC2.2 Exterior wall venting should be avoided.

CC2.3 Roof penetrations should be minimized by grouping plumbing vents and ducts together and providing adequate screening from off site.

CC2.4 Roof leader drains shall be routed through a biofilter, sand filter, or plant box.

CC2.5 Accessory equipment capable of generating noise and vibrations should be properly insulated and the noise and vibrations shall not be apparent from adjacent properties or the public right of way.

CC2.6 Large building masses should be avoided. Building setbacks may be varied to accommodate pedestrian-oriented facilities such as benches, café tables, and bike racks. Parking lot locations at the side or rear are encouraged. Entrances should be located close to the sidewalk to create a more pedestrian-oriented development.

CC2.7 Architectural style should reflect and enhance the character of surrounding neighborhoods.

CC3 SIGNS

CC3.1 All signs should be related to their surroundings in terms of size, shape, color, texture, and lighting so that they are complimentary to the overall design and not in competition with other signs in the area.

CC3.2 Signs should be subtle and unobtrusive, conveying their message in a clear and legible fashion, and should be vandal- and weather-resistant.

CC3.3 External spot or flood sign lighting shall be arranged so that the light source is screened from view, and so that the light is directed against the sign and does not shine onto adjacent property nor into the eyes of motorists or pedestrians.

CC3.4 Lighted signs, whether internally or externally illuminated, should be avoided, except where found to be necessary for location or identification, or as otherwise deemed appropriate by these guidelines.

CC3.5 Decorative product type signs, such as beer signs and informative type signs used for purposes of interior design only, are termed non-accessory signs. Such signs shall be erected only within the business establishment and shall be located no closer to an exterior window or open doorway than 6 feet.

CC3.6 All lighted accessory signs (primarily business identification signs) whether or not neon, shall be submitted to the Design Review Board for approval and shall be in conformity with any approved sign and design policy for the center, building complex or area.

CC3.7 Exposed neon tubing, whether for signing or decoration, is not normally considered in good taste for exterior display and is discouraged.

CC3.8 Freestanding signs shall be integrated with the site plan and low level floodlights shall be screened.

CC3.9 Struts, braces, kickbacks or guy wires to support signing should be avoided unless they are a feature of the design.

CC3.10 Whenever site and visibility conditions allow, freestanding signs should be of a low profile.

11. MORAGA CENTER SPECIFIC PLAN DESIGN GUIDELINES

11.1 INTRODUCTION

11.1.1 Vision Statement

The Moraga Design Guidelines promote high design standards for architecture and development that reflect overall community priorities and development philosophy with a community focal point culminating in a business-friendly, walkable, active, and pedestrian friendly environment while preserving the natural beauty and open spaces of the Moraga Center area.

11.1.2 Purpose, Intent, and Organization

This section is presented to guide the aesthetic nature of development within the Moraga Center Specific Plan (MCSP) area, adding design guidance to the development standards presented in the Land Use Element of the MSCP, which guide bulk, height, and mass.

The intent of the Design Guidelines when applied to the MCSP area is to expand the Specific Plan section on Design Guidelines as it relates to development in the MCSP. Each development block and new development should be considered unique and evaluated on how well it relates to the overall context. The guidelines encourage varied architectural styles, describing an overall traditional aesthetic for high quality development. In the MCSP area, new development projects should emphasize interpretations of Spanish Colonial and Ranch style architecture to promote a cohesive style in the town center.

These MCSP Design Guidelines establish a range of encouraged design approaches while allowing for flexibility and innovation. As projects within the MCSP area are developed, the Design Guidelines will assist the Town of Moraga in evaluating their conformance with the objectives and design vision of the MCSP. These guidelines are designed to provide the Town of Moraga with the necessary assurance that the Specific Plan area will develop in accordance with the high quality and lasting character proposed herein; to guide developers in determining what is appropriate in character and quality for the Town of Moraga; and to assist the Town in evaluating proposals for development.

Chapter 11 of the Design Guidelines do not apply Town-wide. As set forth in Section 1(F) of the MCSP, MCSP Relationship to Other Plans and Regulations, the Town-wide Design Guidelines also apply to the MCSP plan area. To the extent there is any inconsistency between the Town-wide Design Guidelines and the MCSP Design Guidelines, the MCSP Design Guidelines will prevail in the MCSP plan area. For example, Appendix D does not apply to the Moraga Center area.

Images provided within this document depict examples of preferred architectural character. They are used to generally describe preferred arrangements of bulk and mass, use of materials, landscape techniques, and overall design ideas.

After identifying areas of particular importance in relationship to the Design Philosophy presented in Chapter 1 of these Guidelines, the MCSP Guidelines present Design Principles for each of the main MCSP land use categories: Residential, MCSP Commercial, Mixed Retail/Residential, and Mixed Office/Residential. Guidelines for architectural site features such

as street lighting, benches, signage, walls, and fences follow, and this document concludes with guidelines for landscaping, street character, pedestrian and bicycle-friendly design, Town Square design, and remodels, renovations and additions within the MCSP area.

11.1.3 Consistency with Town of Moraga Design Philosophy

These Design Guidelines present eight guiding principles as a Design Philosophy for the Town. These are listed as follows:

- Maintain the Town's Semi-Rural Character (SRC)
- Protect Ridgelines and Hillside Areas (RH)
- Complement Existing Landscaping (L)
- Enhance the Town's Scenic Corridors (SC)
- Minimize the Impacts of Development (ID)
- Thoughtfully Design Single Family Residential Neighborhoods (SFR)
- Thoughtfully Design Multi-Family Residential Developments (MFR)
- Promote Commercial Centers as Community Places (CC)

In addition to considering the guidance presented in the Design Philosophy, the MCSP presents several unique opportunities to reinforce these eight principles. Any development proposals that will impact these areas should be given careful consideration to ensure that the most is made of these unique opportunities.

11.1.3.1 Maintain the Town's Semi-Rural Character (SRC)

The Village concept at the heart of the MCSP implies a mix of different types of activity and areas of higher density that help to support these activities and provide an active and vibrant Village atmosphere. The Village concept does *not* imply a loss of Semi-Rural Character. These two need not be mutually exclusive. However, certain steps can be taken to reinforce the Semi-Rural character as tantamount to the vision set forth in the MCSP.

Where allowed, vertical mixed-use can provide affordable housing, create a lively and active street environment, put people right in the heart of the Village, and use land much more efficiently than spreading out uses. However, many notions of vertical mixed-use conjure images of crowded city streets and neighborhoods with an industrial character. The following guidelines should be applied throughout the MCSP area to ensure that the Village remains appropriately semi-rural in character.

A. Care should be taken to "soften" the effect of upper floors. Examples include using pitched roofs with dormer windows for top floors, increased setbacks applied to upper floors to create a "step-back" effect, upper-floor open spaces such as balconies or porches, and landscape treatments such as rooftop vegetation and adequate use of street trees.
B. Streetscape and public space design should include the use of "semi-rural details," with examples such as rolled curbs, curbless streets with bioswales, split rail fences, and the use of soft materials such as crushed gravel and irregular paving, where appropriate.

C. The Moraga Ranch and the Laguna Creek Riparian Corridor run through the middle of the MCSP area. They should both be preserved and enhanced to the extent possible.

11.1.3.2 Protect Ridgelines and Hillside Areas (RH)

Prioritize low visual profiles for lower density buildings on hill sites, reserving the flattest areas within the MCSP for higher densities. Cluster zoning techniques will allow a certain average density across a large plan area. Within this area, individual projects can be allowed to build densities higher than the allowable average in exchange for areas that remain free from development. When applied, the remaining undeveloped open space areas should be designed to remain publicly accessible and be clearly marked to provide recreational opportunities in the form of trails, greenways, and pocket parks to serve the entire community.

11.1.3.3 Complement Existing Landscaping (L)

The existing landscape in the MCSP is dominated by the Laguna Creek Riparian Zone and orchard trees planted throughout, both of which help to frame the semi-rural context of the MCSP zone. To complement the existing landscape within the MCSP, drainageways should be designed as open channel bioswales that reflect natural topographic profiles, creating an opportunity for native species plantings to run throughout the community and connect to the Laguna Creek corridor, as well as employing visible green strategies for treating storm water. To reflect the historical context of orchard use, the use of both organic fruiting and non-fruiting orchard species planted in linear arrangements is encouraged for buffer areas and within public parks.

11.1.3.4 Enhance the Town's Scenic Corridors (SC)

Moraga Road and Moraga Way, two of the town's major scenic corridors, play pivotal roles in the circulation concept through the MCSP. In addition to guidelines presented in this document for scenic corridor enhancements, the Town's 2006 Transportation Corridor Streetscape Plan presents specific design approaches. However, the Village character and development intensity being proposed in parts of the MCSP will result in buildings oriented toward the street, not just located adjacent to it. In these areas, planting and paving treatments that respect setback requirements but create a pedestrian streetscape rather than greenbelt, may be appropriate.

In all contexts, the importance of Scenic Corridors should be enhanced as important organizing elements within the MCSP area. Special landscaping, signs, lighting, and other streetscape design techniques should be used along streets to announce gateways into the Town and into the MCSP area.

11.1.3.5 Minimize the Impacts of Development (ID)

The most significant impacts in the MCSP are those generated by non-residential uses that affect residential areas. Items such as traffic and parking, noise, debris, light and glare, and visual impact should be given special consideration due to the close proximity of residential and non-residential uses within the MCSP, with special consideration being given to residential mixed use development.

In all areas of the MCSP, the use of green building techniques and sustainable development is encouraged, building on the success of sustainable reconstruction of the historic Moraga Barn. Strategies to employ sustainable site design, water efficiency, energy reduction, and the use of sustainable materials and resources should be used when possible. For further guidance on specific design measures to mitigate impacts of development, please see the following section dealing with General Plan EIR mitigation measures.

11.1.3.6 Thoughtfully Design Single Family Residential Neighborhoods (SFR)

Single family residential neighborhoods in the MCSP will be some of the closest such dwellings to an area of commercial activity in Moraga, providing a unique opportunity for these Moraga residents to walk rather than drive for many of their daily trips. These neighborhoods should be designed with high-quality pedestrian environments with sidewalks and pathways to adjacent neighborhoods and the Moraga Center to encourage walking as a primary mode of transportation.

11.1.3.7 Thoughtfully Design Multi-Family Residential Developments (MFR)

Multi-family residential developments in the MCSP will result in a high concentration of residents in close proximity to the Moraga Center. This provides Moraga Center businesses with an opportunity to attract new customers and increase sales. These developments should be designed with high-quality pedestrian environments with sidewalks and pathways to adjacent neighborhoods and the Moraga Center to encourage walking as a primary mode of transportation for local shopping trips.

11.1.3.8 Promote Commercial Centers as Community Places (CC)

A community place should be inviting and comfortable, providing Moraga residents with a place to linger, stroll, and interact. Special attention should be given to creating a high-quality pedestrian environment through the use of pedestrian amenities such as seating, lighting, and signage; plaza areas; and outdoor café spaces. Through traffic and parking lot access should be directed away from main pedestrian areas, while diagonal on-street parking should be used in pedestrian areas to create an adequate buffer between the sidewalk and the roadway. To further enhance the sense of community in the Moraga Center, designs are encouraged to include a maximum amount of mixing of uses, to include retail, office and residential uses. In addition, commercial centers should include bicycle-friendly design strategies that enhance the direct access to the Lafayette- Moraga Regional Trail.

11.1.4 Design Consistency with General Plan EIR Mitigation Measures

The following general design strategies should be employed where appropriate to mitigate the impacts of development within the MCSP area and on adjacent neighborhoods.

11.1.4.1 Traffic and Parking

A. On-site parking should be designed to handle maximum demand.
B. Access points to parking areas and areas of heavier traffic should be located to direct traffic away from all residential areas.

11.1.4.2 Noise

A. Use of berms, sounds walls, and additional setbacks along residential property lines is encouraged.
B. Delivery and service areas should be enclosed and located away from all residential areas and pedestrian paths, plazas, and sidewalks.
C. External vents and mechanical equipment should be enclosed and fully screened from view and should be directed away from residential uses and pedestrian paths, plazas, and sidewalks.
D. Nighttime uses such as ATM machines should be oriented away from residential uses.
E. Active recreational areas and their related service areas should be located away from lower density residential areas.
F. Primary parking areas and building entrances should be located away from lower density residential areas.

11.1.4.3 Debris and Odor

A. Service entrances and waste disposal facilities (trash, recycling, dumpsters) should be enclosed and fully screened from view and oriented away from all residential areas.
B. Six foot “good neighbor” fencing should be provided along side and rear residential property lines.

11.1.4.4 Light and Glare

A. Light sources should be shielded and directed away from interior living spaces of all residential areas and be dark sky compliant.
B. Illuminated signs should be oriented away from interior living spaces of all residential uses. Ground signs should be used rather than pole signs.

11.1.4.5 Visual Impacts

A. Full landscape plantings should be provided to “line-of-sight” levels to screen views from residential properties into other use areas.
B. Building scale and massing should be compatible with surrounding uses. Higher intensity uses and larger building scale and mass are appropriate in the Moraga Center, and should transition down to be compatible with the existing building scale and mass in adjacent areas.
C. Unobstructed view corridors from adjacent areas with views of significant topographic features such as ridgelines should be maintained.

11.1.5 Procedural Considerations

Please refer to Chapter 2 of these Design Guidelines for information regarding the implementation of the MCSP Guidelines and the Design Review Process.

Example of variety of home types including compact, townhomes, duplexes, triplex homes.

11.2 RESIDENTIAL

The primary aim of design guidelines for residential areas within the MCSP is to create pedestrian friendly, coherent, and attractive neighborhoods that fit into the context of surrounding character of Moraga. Residential areas should support a variety of residential types and densities that all achieve the same high-quality design standard, regardless of the specific building type or density.

11.2.1 Site Design

11.2.1.1 Circulation Patterns

Circulation patterns should define community character, provide links to recreational amenities, and encourage interaction between neighbors.

A. Neighborhood patterns should allow residents to easily walk or bike through the neighborhood.
B. Neighborhood patterns should be designed to work with and preserve topographic and natural features.

11.2.1.2 Streets

Neighborhood Streets should be designed to provide safe and convenient access for vehicles and pedestrians. Streets should provide attractive designs where the composition of street, landscaping, sidewalks, and private front yards define a common space in which residents and visitors can walk, meet, play, and socialize. Street patterns should interconnect and encourage easy access from one neighborhood to another while discouraging high speed travel.

A. Cul-de-sacs should be open ended and adjacent to open space or other recreational amenities such as parks where possible.
B. Closed cul-de-sacs of homes should not back onto open space or parks.
C. Long stretches of homes should not back onto neighborhood collectors or open space amenities such as parks or paseos.
D. Inappropriate street termination points should be avoided. Examples include bedroom windows vulnerable to headlights, alleys, or other parking areas.

11.2.2 Architecture

11.2.2.1 Cohesive Neighborhood Design

Open relationships between neighborhoods should be maintained while still allowing for market differentiation.

A. Signature detailing should establish the community's architectural character in form, color, and materials.
B. Abruptly disharmonious and monolithic architectural style, color, and material should not be used.

11.2.2.2 Streetscapes

Building relationships and groupings should be designed to create streetscapes that demonstrate variety and individuality to contribute to a positive sense of place.

A. Building heights should vary along streets.
B. Setbacks should vary along streets.
C. Uniform and repetitive facades that present a monolithic form of development should be avoided.
D. Window placement and building siting should not violate the privacy of a adjacent private yards.

11.2.2.3 Garages and Driveways

Important in the creation of pedestrian oriented neighborhoods is lessening the impact of garage doors.

A. Plans should provide garages pushed to the rear of the lot or accessed from alleys.
B. Driveway pavement should be reduced to the minimum functional width. The use of permeable materials for driveways is encouraged.
C. Planting pockets should be used between adjacent garage doors.
D. Living space should be forward of the garage setback.
E. Unadorned street-facing garages should not be forward of living areas.
F. Garages should not be the dominant feature and where possible comprise less than 50 percent of the front façade.

11.2.2.4 Building Articulation

Visual interest in the streetscape should be created through building articulation and variation of building forms.

A. Strong vertical accents and varied wall plane lines are encouraged where there is a continuous wall plane of more than 15 feet.
B. Building forms should be appropriate to their style.
C. Use of balconies, verandas, porches, and arcades visible from the street is encouraged.
D. Front porches should be a minimum of 6 feet to allow for functional use.
E. Where topography allows, porches should be elevated above the street level.
F. Use of repetitive, unarticulated building forms is not allowed.
G. Inappropriate mixing of styles should be avoided. (e.g., English half-timbering on 4:12 pitch roof should not be applied to a ranch style home.)

H. Unarticulated roof forms should not be set on a constant wall plate height.

Equal concern should be given to side elevations on corner lots and rear elevations where visible from public areas and neighboring areas. All “public” facades should be articulated.

I. Articulation, materials, and architectural details should wrap around corners to sides and rears of homes where visible.
J. Unadorned flat side and rear elevations should not face onto open space areas and streets.
K. Wrapping porch elements a minimum of 6 feet around the corners of buildings is encouraged on corner lots.
L. Side elevations that face a public street should be enhanced with additional windows, pop-outs or bays, chimneys, stepped rooflines, or balconies, as appropriate.

To the extent possible and consistent with State law and applicable zoning requirements and standards, the visual mass of buildings shall be minimized.

11.2.2.5 Entries

Entries should be given special attention as a whole system including the door, side windows, porch, and entry wall.

A. Entries should be a minimum of 4 feet wide and inviting from the street.
B. Adequate protection from wind, rain, and sun should be provided at building entries.
C. Where entries occur on the corner of a corner lot, wrapping of entry elements around the side is required with a minimum of 4 feet length.
D. Sectional garage doors should have appropriate articulation, such as panel detailing or window panels, and be recessed into the building plane.

11.2.2.6 Details and Materials

Details and materials should be appropriate to the architectural style of the building. Appropriate and well thought out detailing should enhance the perception of a project’s quality.

A. Gutters, downspouts, and rainwater leader heads should be integral to the roof and wall detailing and should be designed as part of the trim.
B. Roofing materials should be appropriate to their related style and pitch. For example, a Spanish Colonial-style home should have a Spanish Colonial-style roof.

C. Homes should have a color palette that at a minimum includes a body color, trim color, and accent color.

Example of multi-family residential project with high quality materials and articulation of form, mass and scale.

11.3 MCSP COMMERCIAL

The retail areas of the Moraga Center Specific Plan are important in establishing long term successful retail relationships with the surrounding community.

Retail buildings should provide a contemporary design sensibility that reflects the eclectic architectural context of Moraga. Building forms should be articulated with pedestrian scale storefronts and a sidewalk-oriented retail presence that creates the desired Village character. Also refer to the section on Mixed Residential / Retail for additional design guidance.

Example commercial project with contemporary design language and articulated storefronts.

11.3.1 Site Design

11.3.1.1 Pedestrian Orientation

Consistent with the Town's principle to promote commercial centers as community places, a primary focus for site design of MCSP Commercial areas should emphasize creating comfortable spaces for pedestrians.

A. MCSP Commercial areas should be designed to be both bicycle and pedestrian friendly.
B. Pedestrian scaled lighting fixtures should be provided.
C. Strong pedestrian connections should be provided from surrounding neighborhoods to the Moraga Center with connecting trails or sidewalks.
D. Outdoor seating should be provided to include both sunny and sheltered areas.
E. Both paved and planted areas should be incorporated into the design.
F. Significant intersections and pedestrian routes across parking areas should be highlighted with bollards, special paving, accent trees and crosswalks.
G. Focal points should be used to provide central opportunities for public art.

11.3.2 Architecture

11.3.2.1 Building Design

Building forms should generate interest through strong and simple forms, colors, and materials. All building facades visible from public areas should employ the same high level of articulation and quality of details and materials as the front elevation of the building. A composition of distinct but related forms should be used for overall massing.

A. Depth and variation along the elevation may be accomplished with projected and recessed wall sections or with colonnades to establish a varying sense of physical movement.

B. Exterior first floor facing facades along major corridors should be primarily designed with minimum of 60% or more transparent glazing to create a strong pedestrian facing façade along the street. The majority of street frontages should be designed for active uses in the floor plan.
C. Street façade entrances should be prominent with a pedestrian entry designed to protect from weather elements.
D. Windowsills should be a minimum of 24 inches above grade.
E. Where long expanses of blank wall that are more than 20 feet and are unavoidable, they should be articulated and softened with changes and relief in wall planes, material changes or landscaping such as three-dimensional details, planters, vines, and other landscaping.
F. Buildings should incorporate three-dimensional façade elements that lend a pedestrian scale to the street level.
G. Main entries should be easily identifiable.

Example of retail and commercial projects with pedestrian facing façade and pedestrian scale.

H. Roof design should be integral to the overall building design.
I. Structures should feature a variety of roof designs, such as a gable with dormers, and wall projections to visually break up the building mass.
J. Roof heights may vary and roof forms may include traditional pitch roofs, shed roofs, and gable forms for creating visual movement along the elevations.
K. Rooftop mechanical equipment should be screened from view to complement the principal building in terms of quality of materials and colors.
L. To the extent possible and consistent with State law and applicable zoning requirements and standards, the visual mass of buildings shall be minimized.

11.3.2.2 Materials

Materials should be appropriate to the building's style and character and suited to commercial construction.

A. Use of materials such as shingle, lap siding, stucco, masonry, storefront glazing, and well-detailed concrete is encouraged.
B. Accent materials such as brick, stone, tile, and anodized or patinaed metals are encouraged.

C. Any changes in materials should occur at inside corners, at a natural break point or a minimum of 4 feet from where the building plane changes direction.

D. Mirror glazing is not allowed.

11.3.2.3 Other Considerations.

For retail tenants, the Moraga Center Specific Plan recognizes the importance of tenant identity and that tenant identity is often integral with the elevations or form of a particular building. Any modification and/or customization of a building(s) and/or building elevation(s) should occur within the overall character and context of these MCSP Design Guidelines and of the approved architecture and site plans.

Any changes to a building(s) and/or building elevation(s) for any land use submitted after Administrative Design Review or approval by the Planning Commission, acting as the Design Review Board, should be reviewed and approved administratively. When staff deems that the cumulative substantial changes have been too great a modification to plans previously recommended for approval by the DRB/Planning Commission and/or Town Council, then the particular proposal shall be re-submitted for review and approval.

Example of mixed residential and retail projects with minimum setbacks.

11.4 MIXED RESIDENTIAL/RETAIL

Mixed Residential/Retail areas within the MCSP should be a unique combination of different land uses, including but not limited to retail, residential, office, commercial, service, entertainment, and recreation. This blending of uses creates an energy to the urban fabric with distinct yet connected public open spaces, linking the School Street retail area, the Moraga Ranch main lawn, and existing and enhanced open spaces within the Moraga Center to formal and informal pedestrian spaces throughout the plan area.

The School Street "main street" character is intended to create a focal point for the new village at the heart of the MCSP, creating a gathering place that has the potential to be a gathering place for formal and informal events and gatherings such as the weekly farmers' market or arts and crafts exhibitions while also providing for comfortable, intimate places to pause and rest. Please also see the section on Community Commercial for additional design guidance.

11.4.1 Site Design

11.4.1.1 Pedestrian Orientation

Consistent with the Town's principle to promote commercial centers as community places, a primary focus for site design of Mixed Residential/Retail areas should emphasize creating comfortable spaces for pedestrians. Please refer to MCSP Commercial section for general site design considerations. Specific to the Mixed Residential/Retail land use classification, use of multi-story mixed use buildings with storefronts, awnings, and ample landscaping is encouraged to create a greater sense of street enclosure where people are comfortable walking and spending time.

A. Mixed Residential/Retail areas should be designed to be both bicycle and pedestrian friendly.
B. Provide for a mix of sizes of businesses to create a pedestrian friendly atmosphere that provides diverse retail components.
C. Use of trellises, awnings, and other weather protection devices is encouraged.
D. Create a well-defined streetwall to provide continuous retail synergy on the street and sidewalk.
E. Design the ground floor space with height and depth to support retail and or commercial spaces, as shown in the examples below.

F. Plazas and other outdoor seating areas should be provided to create gathering places for residents and visitors in order to enhance a village atmosphere, as shown in the examples below.

G. Focal points should be created with features such as fountains, a clock tower, outdoor performance and gathering areas, or opportunities for public art.
H. A generous amount of outdoor seating should be provided and should include both sunny and sheltered areas.
I. Both hard surface and planted areas should be incorporated into the design.
J. Colored, decorative paving patterns should be used at special focal points.
K. To the extent possible and consistent with State law and applicable zoning requirements and standards, the visual mass of buildings shall be minimized.

11.4.1.2 Street Furnishings

Creating comfortable streets and pedestrian spaces is an important part of crafting the Village environment. These areas should be furnished with enhanced high-quality materials and furnishings that create a comfortable, convenient, and entertaining experience, as shown in the examples below. With the exception of features created as public art, the furnishings should be in a similar family of style color, and finish to create a refined and uncluttered appearance.

A. Formal seating areas should be provided, using benches, tables, and chairs. To create interesting public spaces, the use of concrete seat walls and steps to create informal seating at raised planters, steps, and benches cast into the plaza areas is also encouraged.
B. Site furnishings should be of one cohesive design and integrated into the landscape design.
C. Bicycle parking and utilities should be integrated into the landscape design to place these elements where they are needed in a discreet manner.
D. Bollards may be placed to provide separation between auto and pedestrian crossings.
E. Trash and ash receptacles should be placed at convenient locations to help keep these areas clean.

11.4.2 Architecture

The goal of the Mixed Residential/Retail architecture is to create a character which is distinctive and memorable. The architecture should be inspired by classic Village architecture and include a semi-rural design sensibility.

11.4.2.1 Building Design

All building facades visible from public areas should employ the same high level of articulation and quality of details and materials as the front elevation of the building, as show in the example images below.

Example of retail and commercial facades with articulated entrances and treatment of blank walls.

A. Where long expanses of blank wall are unavoidable, they should be articulated and softened with three dimensional details, planters, vines, and other landscaping.
B. A composition of distinct but related forms should be used.
C. Loading and service areas should be integrated into the overall building composition.
D. Architectural enclosures should be designed as integral elements of the building architecture.
E. Use of long, unbroken forms and flat planes is discouraged.

Example of commercial façade with varying composition and use of architectural elements.

F. Public street facing facades should incorporate three-dimensional façade elements that lend a pedestrian scale to the street level.
G. Trellises or permanent awnings should be occasionally incorporated where appropriate to protect sidewalks and plaza areas from the elements.
H. Use of arcades, wide overhangs, and deep reveals is encouraged.
I. Main entries should be easily identifiable.
J. Where flat, unarticulated wall planes are necessary, they should be enhanced with use of materials, landscaping, public art or a relief in the wall plane.
K. Roof design shall be integral to the overall building design.
L. Parapets shall screen rooftop mechanical equipment from view.
M. Tower elements should be included at key locations (entries, corners) to provide points of interest along the street.
N. Uniform rooflines should be avoided by varying heights of adjacent buildings or storefronts.
O. To the extent possible and consistent with State law and applicable zoning requirements and standards, the visual mass of buildings shall be minimized.

11.4.2.2 Materials

Materials should be appropriate to the building's style and character and should be suited to commercial construction.

A. Use of Materials such as shingle, lap siding, stucco, masonry, storefront glazing, and well-detailed concrete is encouraged.
B. Accent materials such as brick, stone, tile, and anodized or patinaed metals are encouraged.
C. Any changes in materials should occur at inside corners where the building plane changes direction.
D. Mirror glazing should not be used.

11.4.3 Moraga Ranch

The Moraga Ranch should be maintained and enhanced as a unique visual and cultural resource in the Specific Plan area and in Moraga as a whole.

A. New buildings in the Moraga Ranch area should feature designs, massing and material that reflect the traditional character of the Moraga Ranch buildings and other California agricultural ranch buildings, including simple forms, wood siding, and gabled, shingled roofs.
B. New development in the Moraga Ranch area should be organized and clustered around the existing main lawn and additional existing and enhanced open spaces that provide for formal and informal pedestrian connections.
C. The design of new development within the Ranch shall be consistent with the existing character of the Moraga Ranch and its existing buildings, including arrangement and separation.

11.5 MIXED OFFICE/RESIDENTIAL

The Mixed Office/Residential land use classification seeks to provide an employment base for the Town of Moraga in a quality environment. As an integral part of the community, it is important to maintain the quality of the character established throughout the rest of the MCSP area.

11.5.1 Site Design

11.5.1.1 Pedestrian Orientation

Mixed Office/Residential development should provide for an employment environment where people are comfortable walking between buildings and parking areas, and have strong pedestrian connections to the rest of the community.

A. Mixed Office/Residential areas should be designed to be both bicycle and pedestrian friendly.
B. Pedestrian paths and walks should be lined with trees. Trees should also be used to create separation between pedestrian paths and parking areas.
C. Pedestrian scaled lighting fixtures should be provided along internal walkways.
D. There should be provision of street furniture including bus shelters, trash receptacles, and bicycle racks.
E. Special paving should be used at key pedestrian and vehicular intersections.
F. Loading and service areas should be screened from view and not be visible from public streets.
G. Architectural enclosures should be designed as integral elements of the building architecture.

11.5.2 Architecture

11.5.2.1 Building Design

Building design should create a quality character of architecture that is aesthetically pleasing and functionally efficient, and allow for flexibility over time. Public street facing facades of all buildings should have the same level of articulation and quality of details and materials as the "public front" of the building.

A. A composition of distinct but related forms should be used.
B. Roof heights may vary.
C. Main entries should be easily identifiable.
D. Flat, unarticulated wall planes should not be used.
E. Roof design should be integral to the overall building design.
F. Rooftop mechanical equipment should be screened from view.
G. Superficial roof forms or roof forms that appear to be tacked on should not be used.

11.5.2.2 Details and Materials

Details and materials should be appropriate to the building's style and character and suited to commercial construction.

A. Use of materials such as stucco, masonry, storefront glazing, and well detailed concrete is encouraged.
B. Accent materials such as brick, stone, tile, glass block, and anodized or patinaed metals should be used.
C. Mirror glazing is not allowed.

11.6 SITE FEATURES

The use of accessory site elements such as lamp posts, signage, walls, and fences greatly contribute to the overall feel of a community. In addition, these elements contribute to the safety, comfort, and legibility of a community, therefore having the dual role of being functional and aesthetic at the same time. Site features used in the MCSP area should be of a similar character to contribute to a cohesive community aesthetic that preserves the semi-rural context and character of the Town.

11.6.1 Lighting

The goal for the lighting guidelines is to provide a comfortable level of illumination that meets the community's needs for orientation and safety in a way that complements the aesthetic qualities of the architecture and the semi-rural character of Moraga.

11.6.1.1 General Considerations

Lighting design should be energy efficient, to create a better quality of life, an improved aesthetic, and preserve energy resources.

A. High efficiency fixtures and sophisticated optics are encouraged to direct light where it is needed without creating excessive glare.
B. Outdoor lighting should be related to the design of the structures and/or landscaping that it serves.
C. Lights should be placed where they are needed for specific uses, rather than to a continuous foot-candle requirement, allowing for the appreciation of the dark sky in the residential neighborhoods and reducing the total number of fixtures and energy consumption. Wherever possible fixtures should carry approval of the International Dark Sky Association.
D. Wherever possible, include motion- or light-detecting switches that will turn off lights when they are not needed.
E. Use warm lighting (3,000 kelvin or lower).
F. Lighting should be shielded to avoid excessive and unnecessary glare.
G. The use of uplights for buildings, trees, or signs is discouraged.
H. All lighting should comply with energy efficiency and other standards under State regulations.
I. Outdoor light fixtures should be designed and mounted so that the source of light has minimal impact off site.
J. Outdoor lighting should be directed inward toward the property and may require additional screening to avoid spillage onto adjacent residential properties.

11.6.1.2 Village Lighting

Centers of community activity should have street and plaza lighting consistent with the MCSP Commercial and Mixed Residential/Retail guidelines in order to maintain the continuity of design character through these spaces.

A. Light fixtures should be designed as an integral part of the streetscape with a spacing and pattern that complements tree plantings and other site furniture.
B. Retail sidewalks and plazas should decorative pedestrian scale pole lights that complement the architectural style of the buildings.
C. Use of wall mounted fixtures where appropriate on the building elevations is encouraged to supplement other forms of lighting and to complement the building architecture.
D. Use of special lighting features is encouraged to further animate public spaces by encouraging nighttime use.
E. Festive lighting such as string lights is encouraged in focal points of pedestrian activity such as plazas, outdoor seating areas, and special sidewalk zones.
F. Light fixtures in retail areas should provide arms for banners to provide seasonal decorative opportunities and to add a festive quality to the Village environment.
G. Parking areas should be lighted with high efficiency pole fixtures that provide an even distribution of light while minimizing glare. Lamps should be combined with sophisticated optics and sharp cut off features to direct all of the light to the ground.

11.6.1.3 Residential Lighting

Lighting in residential areas should be provided at specific points of need in keeping with a semi-rural standard to reflect a quieter and more intimate setting in residential areas.

A. Use of pole lights with a shielded light source and/or optics to direct the light down to the ground is encouraged so that the light source is not visible outside of the light distribution area.
B. Light poles should be provided at street intersections and along pedestrian pathways to provide orientation and way finding within the community.
C. Street identification signs and traffic control signs should be mounted on light poles to integrate these elements into the design and minimize the visual impact of poles and signs on the community.

11.6.1.4 Open Space Lighting

Lighting for parks should help characterize parks as an extension of pedestrian zones throughout the rest of the community and should provide the minimum ample lighting for safety, orientation, and way finding along the trails.

A. The same pole lights used along streets should be placed in parks.
B. Use of decorative pole lights along adjacent streets is encouraged to provide an amenity enhanced edge and increased illumination around park perimeters.
C. Lighting should not be provided for active nighttime use of parks to discourage excessive light and noise to neighbors.
D. Light sources should minimize glare through the use of side shields and cut off optics.
E. No direct view to light sources should be visible from off site.
F. Pedestrian pole light fixtures should complement the pattern of tree planting along paths, roads, and parking areas.
G. Use of building mounted fixtures that match the pole lights is encouraged, as long as the fixtures are scaled appropriately for their location on the building.

11.6.2 Signage

Signage in the MCSP area should be functional and attractive and incorporate artistic elements when possible, using a high level of design, graphics and efficient maintenance.

11.6.2.1 General Considerations

A. All signs should be related to their surroundings in terms of size, shape, color, texture, and lighting so that they are complementary to the overall design and not in competition with other signs in the area.
B. Signs should be subtle and unobtrusive, conveying their message in a clear and legible fashion, and should be vandal- and weather-resistant.
C. Wayfinding or directory signs may be placed at key locations to provide information and orientation for customers.

D. Struts, braces, kickbacks, or guy wires to support signs should be avoided unless they are a feature of the design.
E. Decorative product type signs, such as beer signs and informative type signs used for purposes of interior design only, are termed non-accessory signs. Such signs shall be erected only within the business establishment and shall be located no closer to an exterior window or open doorway than 6 feet.
F. Use of internally illuminated box signs and exposed neon tubing should be avoided.
G. Illuminated signs should be halo-type reverse channel letters or screened, low level spotlights.
H. External lighting sources should be screened from view and light should be directed against the sign so that it does not shine onto adjacent property nor into the eyes of motorists or pedestrians.

11.6.2.2 Building Signs

All building plans should provide a signage program so that they are an integral part of the building design.

A. Use of reverse channel halo lit signs, pedestrian oriented blade signs, sculptured cantilevered signs, non-internally lit signs backed by building face or storefront are encouraged.
B. Individual letter characters are encouraged.
C. Metal signs may be made of aluminum, brass, bronze, copper, or stainless or welded steel.
D. Signs are to be free of all labels and fabricator's advertising, except for those required by code.
E. Logos or trademark displays may be used on signs.
F. Building signs may be halo lit or use shielded gooseneck spot lights directed away from the sidewalk to reduce glare.

11.6.2.3 Freestanding Monument Signs

A. Pole signs are not allowed.
B. Freestanding signs should be of a low profile and integrated with the site plan.
C. Accessory low level floodlights are allowed if properly screened from view.
D. Color, materials, and fonts shall be integrated with the surrounding buildings, walls, or other construction and landscaping.

11.6.2.4 Interpretive Signs

Interpretive signs explaining natural features and/or the history of the MCSP area should be provided as development in the MCSP area occurs, at a minimum in the following areas:

A. Along any pedestrian trail;
B. The Moraga Ranch area;

C. The orchard area located on the south-facing hillside bounded by Camino Ricardo, Moraga Way, and Moraga Creek;
D. The orchard area bounded by Country Club Road and Canyon Road.

11.6.3 Walls and Fencing

Walls and fences should be minimized to the greatest extent possible. For information about reducing the impact of site grading and retaining walls, please refer to Chapter 7 of these guidelines.

11.6.3.1 Walls

A. Site walls should be made of materials complementary to the building architecture palette.
B. Walls located in visually prominent areas should be decorative and faced with materials that are compatible with the surrounding natural environment and from local sources, whenever possible.
C. Keystone and other interlocking masonry wall systems are encouraged in place of concrete retaining walls.
D. Concrete retaining walls shall be allowed only where necessary for structural and spatial requirements and shall be heavily screened from view with plantings to minimize their visual impact.
E. Plantings should be utilized to minimize the visual impact of all retaining walls.

11.6.3.2 Fencing

A. Fencing materials and colors should complement adjacent architecture.
B. Use of decorative fencing styles such as grape stake, picket, and split rail fences are encouraged in areas of high visual sensitivity.
C. Use of a variety of traditional wood “good neighbor” style fences is allowed.

11.6.4 Site Furniture

11.6.4.1 Street Furniture and Paving Treatment

Streets and public spaces should be designed to be comfortable for pedestrians and emphasize pedestrian movement among and between various uses in MCSP area, as shown in the example images below.

Example of paving treatments, seat walls, and street furniture in the private and public realm.

A. Benches and seat walls should be incorporated into the streetscape to provide seating areas along pedestrian promenades.
B. Ample bicycle parking areas and bicycle racks should be provided throughout the MCSP area.
C. Seating areas should present both shady and sunny opportunities.
D. Tree grates, bollards, and other site furniture should be used to help articulate the street edges and provide a pleasant separation between the automobile realm and the pedestrian realm.
E. Where the automobile realm and the pedestrian realm overlap, clear priority should be given to the pedestrian in the form of accentuated paving, bollards, special crosswalk lighting, and other pedestrian features.
F. The use of permeable concrete or permeable asphalt paving with score lines to reduce the scale of the pavement, or permeable interlocking pavers, is encouraged.
G. Passageways between stores that lead to parking areas are particularly important and should be accentuated by architectural gateway elements, decorative paving and plantings, bollards, and seating courts with ample shade and weather protection.

11.6.4.2 Park Furniture and Paving Treatment

Pedestrian promenades flow through parks as the primary pedestrian activity zone. They should be furnished with durable materials and equipment that will support a variety of play and recreation experiences. Wood, concrete, and galvanized or patinaed metal materials may be used where appropriate to achieve the best performance possible for the furnishings specified.

A. Use of wood or recycled plastic planks and metal is encouraged for benches and picnic tables. Wood should be specified from sustainable sources.
B. Barbecue grills should be cast into concrete footings and made of durable cast iron materials.
C. Bollards should be used to separate pedestrian areas from vehicular pavement, and should be made of cast iron or natural wood posts.

D. Wood fences may provide separation between parks and adjacent uses. Where front yards or streets face parks, use of post and rail or picket fences is encouraged. Where side or rear yards occur next to parks, “good neighbor” fences six feet in height should be used.
E. Wood trellis structures may be used as shade structures. These should be built of oversized rough lumber with patinaed or galvanized hardware that matches the metal color palette.
F. Cast in place concrete seat walls may be used where they provide the best material solution to the need. Walls should be formed and finished to provide comfortable seating elements that flow with the site geometry.

In addition to open lawn areas, park designs should provide for passive and active play environments for all ages and interests.

G. All play experiences shall be designed to meet the access requirements addressed in the ADA codes and regulations.
H. Use of play surfaces such as sand, recycled rubber pavement, and artificial turf that create different play experiences as well as increase safety and provide options for comfortable and heat resistant play surfaces is encouraged.
I. Play structures should be composed of wood, plastic, or metal components to provide the most practical and appropriate material for the intended use. Galvanized metal components may be used where it provides the best wearing treatment for the use.
J. Variation in colors and materials of play equipment is encouraged to create different identities for neighborhood parks. Brighter colors may be used selectively for interest, and color coordination with the color palette of the planting design is encouraged.
K. Use of interactive public “play art” is encouraged. These elements should be painted in bright colors to add interest and playful energy to these spaces.
L. Selection of paving materials for parks should be based upon the nature of the traffic and the type of experience that is designed for the park.
M. Use of crushed stone for the primary paving material in parks is encouraged.
N. Use of integrally colored and natural gray concrete with decorative scoring and sandblasted patterns is encouraged for focal points of pedestrian activity.
O. Where appropriate, asphalt paving, porous paving, and crushed stone paths should be used.
P. Lower intensity bicycle paths should be constructed of reinforced crushed stone paving or similar materials where allowed under accessibility requirements.
Q. Crushed stone, permeable concrete, and permeable paving stones should be used to reduce storm water runoff and to reduce the scale of parking areas.
R. Enhanced paving should be used to articulate pedestrian crossings, buildings entrances, and site entrances that relate to parking areas.

11.7 LANDSCAPE

Landscaped areas should be drought-tolerant, deer resistant, and appropriate for Moraga’s chaparral landscape context.

1.7.1 Street Landscaping

Street trees provide a significant landscape presence that enhances the experience of walking, riding, or driving through the MCSP neighborhoods. Street trees should be evergreen varieties which are well suited to the local environment and should be used to create a sense of continuous street enclosure and protection for pedestrian areas without creating traffic hazards.

For landscape strategies specific to Scenic Corridors, please refer to Appendix B of these guidelines for a list of recommended trees and shrubs for scenic corridors. Street trees for community streets and bioswale areas should also be taken from this list. In addition, please refer to the Moraga Transportation Corridor Streetscape Plan for additional landscape design principles appropriate to street landscaping.

11.7.2 Residential Landscaping

Planting designs should be appropriate for the local site and environmental conditions present in Moraga.

A. Neighborhood plantings should have individual expressions of landscape design consistent with the architectural character of the homes.
B. Street trees should be placed in landscape strips that separate the roadway from the sidewalk, which should also include drought tolerant shrub and groundcover plantings to encourage sidewalk use.
C. Residential alleys should be planted with evergreen trees and shrubs to soften and complement the architectural design.
D. At a minimum, planting pockets should occur at each property line along alleys.
E. Pedestrian walkways that provide garden entries to homes along common paseos should be treated with ornamental trees and flowering shrubs to accentuate their pedestrian significance.

11.7.3 Commercial Landscaping

The landscape design for commercial areas should provide a festive and dynamic environment for shopping and passive recreation.

A. Planting design of storefronts and plaza areas should have individual expressions of landscape design consistent with the architectural design.
B. Bold use of plant material in sweeping masses of layered color and texture is encouraged.
C. Street trees should create a continuous canopy along streets.
D. Trees planted along commercial streets should be planted in tree wells a minimum of 6 feet length by 6 feet wide. Where diagonal parking or corner conditions permit additional landscape areas, trees should be complemented by flowering shrubs or other ornamental plants.
E. The use of “soft” materials such as crushed rock is encouraged as a base in planting areas to enhance the semi-rural character of commercial areas.

Landscape treatments for parking areas should present a coherent planting theme that minimizes the impact of asphalt and automobile traffic as shown in the examples below.

Example of landscape treatments in more urban settings with a cohesive theme reflecting the architecture.

F. Pedestrian routes through parking areas should be clearly marked by features such as enhanced paving, pedestrian scaled light fixtures, bollards and enhanced tree canopies, and should lead directly to passageways between stores.
G. Evergreen trees should be used to provide year-round parking lot tree coverage and to help reduce the impact of storm water runoff.
H. Bioswales should be integrated into parking areas to improve the quality of storm water runoff and to allow infiltration of storm water into the subgrade. Curbs should have notched openings set flush or below the asphalt elevation to allow water flow into the bioswales.

11.7.4 Open Space Landscaping

Planting design in parks should have distinct variations in theme based upon the site context, use, and visual concept.

A. Smaller parks and those in higher intensity use areas should be designed in a formal style.

B. Larger parks and those in lower intensity of use areas and residential neighborhoods should include native plantings and landforms that have an informal character.
C. Formal gardens that make use of bold plantings in sweeping masses of layered color and texture, and that create visual interest and ease of maintenance, are encouraged.

11.8 STREET CHARACTER

11.8.1 Purpose

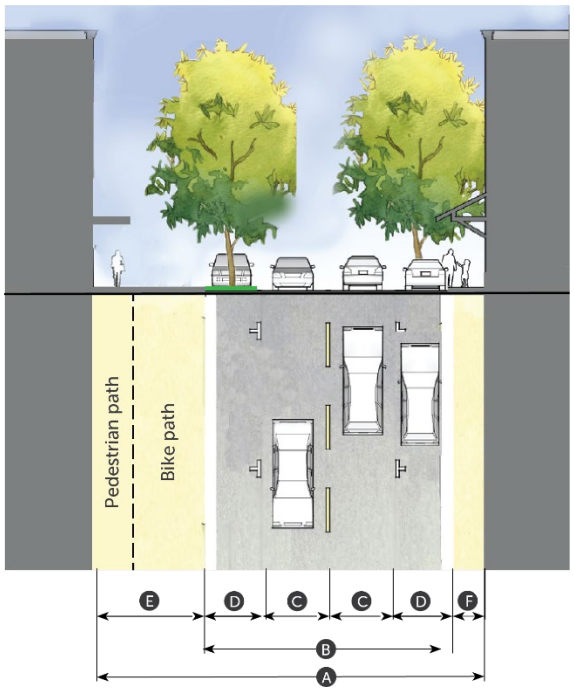
This section serves as a guide for the purpose of better urban character, neighborhood character and development along streets, trails and bridges. These are to be evaluated based on site design and project characteristics to accommodate the development by the MCSP.

11.8.2 General Guidelines

A. Continuity. The continuity of vehicular lanes, bicycle facilities, and public frontages should be considered in the design of streets.
B. Topography. Streets that traverse steep slopes may need to incorporate special design consideration for drainage facilities, additional width for bicycle lanes on the uphill side of the thoroughfare, and other slope-related issues. Streets should be located and designed to minimize the use of retaining walls, as feasible.
C. Truck Access. Streets that provide access to high volumes of large trucks may need additional design considerations to mitigate potential negative effects on walkability.
D. Bus and Transit Service. Streets that will serve as public transit or school bus routes may need additional design considerations, including, but not limited to, the location of bus stops and minimum 11-foot travel lane widths.
E. Street Standards and Fire/Emergency Access. Street standards and street design are established and reviewed by Moraga-Orinda Fire District (MOFD) Fire Code in conjunction with approved Town of Moraga Subdivision Ordinance standards and any proposed standards must conform to both.
F. Trails. The Lafayette Moraga Regional Trail and Laguna Creek, along with other trails in the MCSP area, should be constructed in accordance with the design standards established in these Design Guidelines and as approved by the Town's Department of Public Works.
G. Green infrastructure. All public streets should incorporate green infrastructure such as tree well filters and bioretention planters. Reference Contra Costa Clean Water Program for specific guidance.
H. Connections from Harvest Court. In the Harvest Court subdivision, provide a connection to the existing trail and street stubs to the new development in the MCSP area.

11.8.3 School Street

School Street should be constructed to include the Lafayette-Moraga Regional Trail (unless the trail is constructed immediately adjacent to the creek) along with parking. The School Street Guidelines below are provided as a guide. Street standards and street design are established and reviewed by Moraga-Orinda Fire District (MOFD) Fire Code in conjunction with approved Town of Moraga Subdivision standards and any proposed standards must conform.



SCHOOL STREET GUIDELINES

	Details	Figure Key
A. Application		
Movement Type	Slow	
Design Speed	25 mph	
B. Overall Widths		
Right-of-Way (ROW) Width	60 feet	A
Pavement Width	38 feet	B
C. Lane Assembly		
Traffic Lanes	Two (2) at 11 feet each	C
Parking Lanes	Two (2) at 8 feet each, marked (includes tree wells)	D
Tree Wells	6-ft by 6-ft tree well every 30 feet on-center average in the parking lane	
D. Public Frontage Assembly – East side of street		
Drainage Collection Type	Curb and gutter	
Lighting Type	Post or column	
Walkway Width	6-ft	F
Curb Type	Square	
E. Lafayette Moraga Trail – West side of street		
Drainage Collection Type	Curb and gutter	
Lighting Type	Post or column	
Trail Type	16-ft trail (6-ft sidewalk and 10-foot bicycle path)	E
Curb Type	Square	

11.9 PEDESTRIAN AND BICYCLE-FRIENDLY DESIGN

11.9.1 Intersections

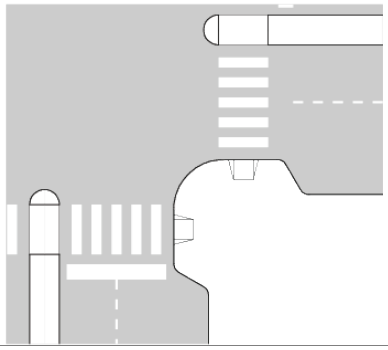
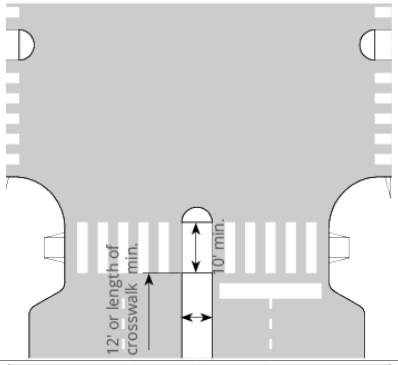
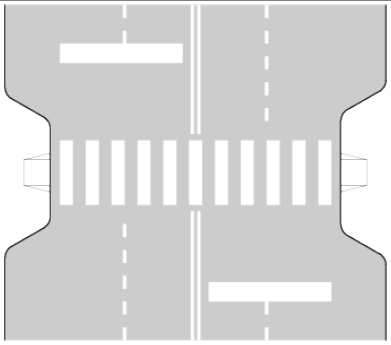
Street intersections should be safe for pedestrians and bicyclists, as well as automobiles:

A. Street design of narrow streets and compact intersections requires designers to pay close attention to the operational needs of transit and school buses, fire and rescue, waste collection and delivery trucks. For this reason, early coordination with transit and school buses, fire and rescue equipment, and waste collection agencies and other similar stakeholder groups is essential.
B. Encroachment of turning vehicles into opposing lanes can be expected to occur at compact intersections. Therefore, frequency of access, traffic volumes and the speeds on intersecting streets at those intersections should be considered when designing intersections. For fire and rescue, determination of the importance of that street for community access should be determined, e.g. primary or secondary access.
C. Intersections should be designed to ensure that adequate operation of all types of vehicles that will utilize them can occur. Location of on-street parking around intersections may be evaluated during this analysis to identify potential conflicts between turning vehicles and on-street parking. Bike lanes and on-street parking will increase the effective curb return radius where curb extensions are not employed.
D. Curb radius at intersections should generally be 10 to 15 feet. Curbs may be mountable if necessary to meet the needs of fire and emergency access.
E. Roundabouts should be considered as an alternative for any type of intersection. Roundabouts can provide reduced vehicle speeds, reduced conflict points, separation of vehicle-vehicle conflict points from vehicle-pedestrian conflict points, and provide a two-step crossing for pedestrians.

11.9.2 Pedestrian Crossing Design Guidelines

Pedestrian crossings at intersections and mid-block locations should be designed in accordance with the following guidelines. Modifications may be made to comply with ADA requirements.

PEDESTRIAN CROSSINGS

Type	Description	
Directional Curb Ramps	Perpendicular corner curb ramps with a separate ramp installed in each direction should be used where feasible instead of single, diagonal corner ramps. The limit line should be set back a minimum of 4 feet from the crosswalk.	
Crosswalks	Crosswalks should be designed per the California Manual of Uniform Traffic Control Devices (CA MUTCD). All marked crosswalks should be striped as high-visibility crosswalks.	
Medians	Medians, where provided, should provide a median refuge for pedestrians at the intersection. Medians should be a minimum of 6 feet wide with a preferred width of 8 feet wide wherever possible.	
Mid-block Crossings	Mid-block crossings, where provided, should have mid-block curb extensions, flashing beacons (if warranted by traffic volumes), and additional signage. The limit line should be set back a minimum of 20 feet from the crosswalk. There should be no parking or vertical features on the street edge within the 20-foot setback to the crosswalk.	

11.10 TOWN SQUARE DESIGN

11.10.1 Purpose

These guidelines provide guidance on design and development of the Town Square in the Moraga Center Specific Plan area.

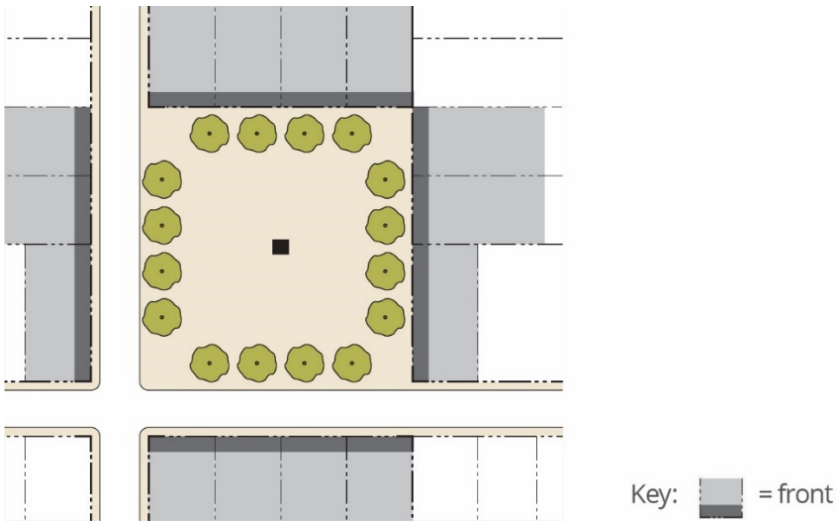
11.10.2 Town Square Design

A. The Town Square should be designed to serve as a community-wide focal point for civic and commercial activities. The Town Square should be a formal urban space, primarily featuring hardscape and/or natural turf, outdoor seating, and other passive recreation facilities, with planting accents in formal patterns. It should be spatially defined by adjacent buildings and tree-lined streets, and should feature one or more civic elements, such as sculptures, fountains, or public art. A small stage, bandstand, or outdoor performance space, as well as seating areas for adjacent cafes or restaurants, may also be included.

B. Design Parameters. The recommended design parameters for the Town Square are as follows, subject to adjustment in connection with specific development proposals and proposed uses.

Design Parameters	
Minimum Area	0.25 acre
Minimum Dimension	80 feet

C. Building Frontage. The facades on the lots attached to or across the street from the Town Square should be designed as a "front" on to the public, as illustrated below.

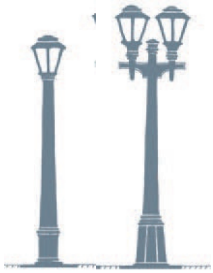


D. Accessory Structures and Buildings. Accessory structures and buildings built in the Town Square should be designed and furnished to be consistent with the Town Square itself. Such consistency may require accessory structures and buildings to maintain building setbacks, frontage, massing, disposition, and design character similar to

adjacent development. Such accessory structures and buildings may include restrooms, concession stands, pergolas, gazebos, maintenance buildings, and community gathering rooms.

11.10.3 Town Square Lighting Types

A. In addition to conforming with the lighting guidance in Section 6 of these MCSP Design Guidelines, public lighting in the Town Square should conform with the following examples:

Pole Type	Pipe (round)	Post (square)	Column
Illustration			

B. Pedestrian lighting shall be of a height where the luminaire is mounted between 12 to 14 feet above the sidewalk/pavement. Pedestrian lighting can have pipe, post, or column type poles.
C. Vehicular lighting shall be of a height where the luminaire is mounted between 18 to 20 feet above the pavement. Vehicular lighting shall only have pipe or post poles.
D. Pipe and post lighting shall feature a pendant-style light head type that is dark sky compliant. Column lighting shall feature an acorn-style light head type that is dark sky compliant.
E. The color of the light poles shall relate to the surrounding architecture and town square design features.

11.10.4 Town Square Examples

The following photos show examples of successful town squares from other locations whose overall character is appropriate for Moraga's Town Square. Individual design elements will differ from the examples shown. These examples are shown with reference to the town squares only, and not the architectural style or size of the surrounding buildings shown in the photographs.

South Side Works, Pittsburgh, PA ≈0.5 acres

Livermore Lizzie Fountain Park ≈0.2 acres

Livermore Plaza ≈0.2 acres

One Colorado Plaza, Pasadena, CA ≈0.3 acres

Healdsburg Plaza Gazebo

11.11 REMODELS, RENOVATIONS AND ADDITIONS

These guidelines provide guidance on remodels and renovations of existing buildings within the MCSP area.

11.11.1 Existing Buildings

A. On-going repair, maintenance, and stabilization of an existing building, regardless of time period or style, is encouraged.
B. Remodels or renovations that comprise more than 50% of the building's exterior may be required to include elements to enhance the character of the building.
C. Interior remodels and renovations of buildings that proposed no changes to the exterior of the building are exempt from design review.
D. Buildings that are demolished or destroyed may be rebuilt at the same size, height and within the building footprint in compliance with the applicable zoning district or if applicable, Moraga Municipal Code Chapter 8.20 – Nonconforming Uses, Structures and Lots.

11.11.2 Additions

A. Additions to existing buildings shall be designed to match the character of the existing building.

APPENDIX A
Moraga Design Guidelines

Build It Green
Single-Family GreenPoint Checklist

The GreenPoint Checklist offers builders, homeowners and municipalities a tool to assess how environmentally friendly or green a home is. This checklist is also the basis for Build It Green's third-party verification program – GreenPoint Rated. GreenPoint Rated was developed with the cooperation of local builders, city planners and building officials. Each green measure has been assigned a point value based on its benefits to the homeowners and the environment, as well as its ease of implementation.

A home can be considered green if it fulfills the prerequisites, earns at least 50 points and meets the minimum points per category: Energy (30), Indoor Air Quality/Health (5), Resources (6), and Water (9). You can obtain additional information on the Green Building Guidelines, GreenPoint Rated Manuals and most recent versions of the GreenPoint Checklists at GreenPointRated@BuilditGreen.org or call (510) 845-0472, ext. 604. The GreenPoint Rated program is updated every three years to coincide with changes to the California Building Energy Efficiency Standards. Currently, there are checklists for existing and new single family homes and for multifamily structures. The most current checklist for new single family homes (SF Data Collection Form v3.7) is printed on the following pages. Please contact Build It Green for a list of certified GreenPoint Raters if you are interested in obtaining a green home rating.

GreenPoint Rated Checklist: Single Family

The GreenPoint Rated checklist tracks green features incorporated into the home. **A home is only GreenPoint Rated if all features are verified by a Certified GreenPoint Rater through Build It Green** . GreenPoint Rated is provided as a public service by Build It Green, a professional non-profit whose mission is to promote healthy, energy and resource efficient buildings in California.

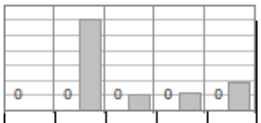
The minimum requirements of GreenPoint Rated are as follows: verification of 50 or more points; Earn the following minimum points per category: Energy (30), Indoor Air Quality/Health (5), Resources (6), and Water (9); and meet the prerequisitesA.3.a (50% construction waste diversion), J.1 (Exceed Title 24 by 15%), and N.1 (Incorporate Green Point Rated checklist in blueprints).

The criteria for the green building practices listed below are described in the GreenPoint Rated Single Family Rating Manual. For more information please visit **www.builditgreen.org/greenpointrated**

Single Family New Home 3.7

Total Points Achieved: 0

GreenPointRATED
A PROGRAM OF BUILD IT GREEN



Enter Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Blueprint Page No.	Notes
A. SITE			Possible Points						
	1. Protect Topsoil and Minimize Disruption of Existing Plants & Trees								
No	a. Protect Topsoil from Erosion and Reuse after Construction	0	1				1		
No	b. Limit and Delineate Construction Footprint for Maximum Protection	0					1		
No	**2. Deconstruct Instead of Demolishing Existing Buildings On Site**	0				3			
	3. Recycle Job Site Construction Waste (Including Green Waste)								
No	a. Minimum 50% Waste Diversion by Weight (Recycling or Reuse) - *Required*	0				R			
No	b. Minimum 65% Diversion by Weight (Recycling or Reuse)	0				2			
No	c. Minimum 80% Diversion by Weight (Recycling or Reuse)	0				2			
	4. Use Recycled Content Aggregate (Minimum 25%)								
No	a. Walkway and Driveway Base	0				1			
No	b. Roadway Base	0				1			
	Total Points Available in Site = 12	0							
B. FOUNDATION			Points Available Per Measure						
	1. Replace Portland Cement in Concrete with Recycled Flyash or Slag								
No	a. Minimum 20% Flyash or Slag	0				1			
No	b. Minimum 25% Flyash or Slag	0				1			
No	**2. Use Frost-Protected Shallow Foundation in Cold Areas (C.E.C. Climate Zone 16)**	0				3			
No	**3. Use Radon Resistant Construction** [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			1				
	4. Design and Build Structural Pest Controls								
No	a. Install Termite Shields & Separate All Exterior Wood-to-Concrete Connections by Metal or Plastic Fasteners/Dividers [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0				1			
No	b. All New Plants Have Trunk, Base, or Stem Located At Least 36 Inches from Foundation	0				1			
	Total Points Available in Foundation = 8	0							
C. LANDSCAPING			Points Available Per Measure						
	1. Construct Resource-Efficient Landscapes								
No	a. No Invasive Species Listed by Cal-IPC Are Planted	0					1		
No	b. No Plant Species Will Require Hedging	0				1			
No	c. 75% of Plants Are California Natives or Mediterranean Species or Other Appropriate Species	0					3		
No	**2. Use Fire-Safe Landscaping Techniques**	0	1						
	3. Minimize Turf Areas in Landscape Installed by Builder								
No	a. All Turf Will Have a Water Requirement Less than or Equal to Tall Fescue (< = 0.8 plant factor)	0					2		
No	b. Turf Shall Not Be Installed on Slopes Exceeding 10% or in Areas Less than 8 Feet Wide	0					2		
No	c. Turf is ≤33% of Landscaped Area (total 2 points)	0					2		
No	d. Turf is ≤10% of Landscaped Area (total 4 points)	0					2		
No	**4. Plant Shade Trees**	0					3		
No	**5. Group Plants by Water Needs (Hydrozoning)**	0					2		
	6. Install High-Efficiency Irrigation Systems								
No	a. System Uses Only Low-Flow Drip, Bubblers, or Low-flow Sprinklers	0					2		
No	b. System Has Smart (Weather-Based) Controllers	0					3		
No	**7. Incorporate Two Inches of Compost in the Top 6 to 12 Inches of Soil**	0					3		
No	**8. Mulch All Planting Beds to the Greater of 2 Inches or Local Water Ordinance Requirement**	0					2		
No	**9. Use 50% Salvaged or Recycled-Content Materials for 50% of Non-Plant Landscape Elements**	0				1			
No	**10. Reduce Light Pollution by Shielding Fixtures and Directing Light Downward**	0	1						
	Total Points Available in Landscaping = 31	0							
D. STRUCTURAL FRAME & BUILDING ENVELOPE			Points Available Per Measure						
	1. Apply Optimal Value Engineering								
No	a. Place Rafters and Studs at 24-Inch On Center Framing	0				1			
No	b. Size Door and Window Headers for Load	0				1			
No	c. Use Only Jack and Cripple Studs Required for Load	0				1			
	2. Use Engineered Lumber								
No	a. Beams and Headers	0				1			
No	b. Insulated Engineered Headers	0		1					
No	c. Wood I-Joists or Web Trusses for Floors	0				1			
No	d. Wood I-Joists for Roof Rafters	0				1			
No	e. Engineered or Finger-Jointed Studs for Vertical Applications	0				1			
No	f. Oriented Strand Board for Subfloor	0				1			
No	g. Oriented Strand Board for Wall and Roof Sheathing	0				1			
	3. Use FSC-Certified Wood								
No	a. Dimensional Lumber, Studs and Timber: Minimum 40%	0				2			
No	b. Dimensional Lumber, Studs and Timber: Minimum 70%	0				2			
No	c. Panel Products: Minimum 40%	0				1			
No	d. Panel Products: Minimum 70%	0				1			

Enter Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Blueprint Page No.	Notes
	4. Use Solid Wall Systems (Includes SIPs, ICFs, & Any Non-Stick Frame Assembly)								
No	a. Floors	0		2		2			
No	b. Walls	0		2		2			
No	c. Roofs	0		2		2			
	5. Reduce Pollution Entering the Home from the Garage [*Points automatically granted when project qualifies for measure J3: ES with IAQ]								
No	a. Tightly Seal the Air Barrier between Garage and Living Area	0			1				
No	b. Install Garage Exhaust Fan OR Build a Detached Garage	0			1				
No	**6. Design Energy Heels on Trusses (75% of Attic Insulation Height at Outside Edge of Exterior Wall)**	0		1					
No	**7. Design Roof Trusses to Accommodate Ductwork**	0		1					
No	**8. Use Recycled-Content Steel Studs for 90% of Interior Wall Framing**	0				1			
No	**9. Thermal Mass Walls: 5/8-Inch Drywall on All Interior Walls or Walls Weighing more than 40 lb/cu.ft.**	0		1					
	10. Install Overhangs and Gutters								
No	a. Minimum 16-Inch Overhangs and Gutters [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0				1			
No	b. Minimum 24-Inch Overhangs and Gutters	0		1					
	Total Points Available in Structural Building Frame and Envelope = 36	0							
	E. EXTERIOR FINISH		Points Available Per Measure						
No	**1. Use Recycled-Content (No Virgin Plastic) or FSC-Certified Wood Decking**	0				2			
No	**2. Install a Rain Screen Wall System**	0				2			
No	**3. Use Durable and Non-Combustible Siding Materials**	0				1			
No	**4. Use Durable and Non-Combustible Roofing Materials**	0				2			
	Total Points Available in Exterior Finish = 7	0							
	F. INSULATION		Points Available Per Measure						
	1. Install Insulation with 75% Recycled Content								
No	a. Walls and Floors	0				1			
No	b. Ceilings	0				1			
	2. Install Insulation that is Low-Emitting (Certified Section 01350)								
No	a. Walls and Floors	0			1				
No	b. Ceilings	0			1				
No	**3. Inspect Quality of Insulation Installation before Applying Drywall** [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0		1					
	Total Points Available in Insulation = 5	0							
	G. PLUMBING		Points Available Per Measure						
	1. Distribute Domestic Hot Water Efficiently (Additive, Maximum 7 Points)								
No	a. Insulate Hot Water Pipes from Water Heater to Kitchen	0		1			1		
No	b. Insulate All Hot Water Pipes	0		1			1		
No	c. Use Engineered Parallel Piping	0					1		
No	d. Use Engineered Parallel Piping with Demand Controlled Circulation Loop	0					1		
No	e. Use Structured Plumbing with Demand Controlled Circulation Loop	0		1			2		
No	f. Use Central Core Plumbing	0		1		1	1		
No	**2. Install Only High Efficiency Toilets (Dual-Flush or≤1.28 gpf)**	0					4		
	Total Points Available in Plumbing = Total 11	0							
	H. HEATING, VENTILATION & AIR CONDITIONING		Points Available Per Measure						
No	**1. Design and Install HVAC System to ACCA Manual J, D, and S Recommendations** [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0		4					
	2. Install Sealed Combustion Units [*Points automatically granted when project qualifies for measure J3: ES with IAQ]								
No	a. Furnaces	0			2				
No	b. Water Heaters	0			2				
No	**3. Install Zoned, Hydronic Radiant Heating**	0		1	1				
No	**4. Install High Efficiency Air Conditioning with Environmentally Responsible Refrigerants**	0	1						
	5. Design and Install Effective Ductwork [*5b,d,&e are automatically granted when project qualifies for measure J3: ES with IAQ]								
No	a. Install HVAC Unit and Ductwork within Conditioned Space	0		3					
No	b. Use Duct Mastic on All Duct Joints and Seams	0		1					
No	c. Install Ductwork under Attic Insulation (Buried Ducts)	0		1					
No	d. Pressure Relieve the Ductwork System	0		1					
No	e. Protect Ducts during Construction and Clean All Ducts before Occupancy	0		1					
No	**6. Install High Efficiency HVAC Filter (MERV 6+)** [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			1				
No	**7. Don't Install Fireplaces or Install Sealed Gas Fireplaces with Efficiency Rating NOT Less Than 60% using CSA Standards**	0			1				
	8. Install Effective Exhaust Systems in Bathrooms and Kitchens [*8a&c are automatically granted when project qualifies for measure J3: ES with IAQ]								
No	a. Install ENERGY STAR Bathroom Fans Vented to the Outside	0			1				
No	b. All Bathroom Fans Are on Timer or Humidistat	0			1				
No	c. Install Kitchen Range Hood Vented to the Outside	0			1				
	9. Install Mechanical Ventilation System for Cooling (Max. 4 Points)								
No	a. Install ENERGY STAR Ceiling Fans & Light Kits in Living Areas & Bedrooms	0		1					
No	b. Install Whole House Fan with Variable Speeds	0		1					
No	c. Automatically Controlled Integrated System	0		2					
No	d. Automatically Controlled Integrated System with Variable Speed Control	0		3					
	10. Install Mechanical Fresh Air Ventilation System (Maximum 3 Points)								
No	a. Any Whole House Ventilation System That Meets ASHRAE 62.2	0			2				
No	b. Install Air-to-Air Heat Exchanger that meets ASHRAE 62.2 [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0		1	2				
No	**11. Install Carbon Monoxide Alarm(s)** [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			1				
	Total Points Available in Heating, Ventilation and Air Conditioning = 30	0							

Enter Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Blueprint Page No.	Notes
I. RENEWABLE ENERGY			Points Available Per Measure						
No	1. Pre-Plumb for Solar Hot Water Heating	0		4					
No	2. Install Solar Water Heating System	0		10					
No	3. Install Wiring Conduit for Future Photovoltaic Installation & Provide 200 ft² of South-Facing Roof	0		2					
	4. Install Photovoltaic (PV) Panels								
No	a. 30% of electric needs OR 1.2 kW (total 6 points)	0		6					
No	b. 60% of electric needsOR 2.4kW (total 12 points)	0		6					
No	c. 90% of electric need OR 3.6 kW (total 18 points)	0		6					
	Total Available Points in Renewable Energy = 28	0							
J. BUILDING PERFORMANCE			Points Available Per Measure						
	1. Diagnostic Evaluations								
No	a. House Passes Blower Door Test [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0		1					
No	b. House Passes Combustion Safety Backdraft Test	0			1				
	2. Design and Build High Performance Homes - 15% above 2005 Title 24 - *Required*	0		≥30					
No	3. House Obtains ENERGY STAR with Indoor Air Package Certification - *Pilot Measure* (Total 45 points; read comment)	0			5	2			
	Total Available Points in Building Performance = 39	0							
K. FINISHES			Points Available Per Measure						
No	1. Design Entryways to Reduce Tracked in Contaminants	0			1				
	2. Use Low-VOC or Zero-VOC Paint (Maximum 3 Points)								
No	a. Low-VOC Interior Wall/Ceiling Paints (<50gpl VOCs (Flat) & <150gpl VOCs (Non-Flat))	0			1				
No	b. Zero-VOC: Interior Wall/Ceiling Paints (<5 gpl VOCs (Flat))	0			3				
No	3. Use Low VOC, Water-Based Wood Finishes (<250 gpl VOCs)	0			2				
No	4. Use Low-VOC Caulk and Construction Adhesives (<70 gpl VOCs) for All Adhesives	0			2				
No	5. Use Recycled-Content Paint	0				1			
	6. Use Environmentally Preferable Materials for Interior Finish: A) FSC-Certified Wood, B) Reclaimed, C) Rapidly Renewable, D) Recycled-Content or E) Finger-Jointed								
No	a. Cabinets (50% Minimum)	0				1			
No	b. Interior Trim (50% Minimum)	0				1			
No	c. Shelving (50% Minimum)	0				1			
No	d. Doors (50% Minimum)	0				1			
No	e. Countertops (50% Minimum)	0				1			
	7. Reduce Formaldehyde in Interior Finish (CA Section 01350)								
No	a. Subfloor & Stair Treads (90% Minimum)	0			1				
No	b. Cabinets & Countertops (90% Minimum)	0			1				
No	c. Interior Trim (90% Minimum)	0			1				
No	d. Shelving (90% Minimum)	0			1				
No	8. After Installation of Finishes, Test of Indoor Air Shows Formaldehyde Level <27ppb	0			3				
	Total Available Points in Finishes = 21	0							
L. FLOORING			Points Available Per Measure						
	1. Use Environmentally Preferable Flooring: A) FSC-Certified Wood, B) Reclaimed or Refinished, C) Rapidly Renewable, D) Recycled-Content, E) Exposed Concrete. *Flooring Adhesives Must Have <70 gpl VOCs.*								
No	a. Minimum 15% of Floor Area	0				1			
No	b. Minimum 30% of Floor Area	0				1			
No	c. Minimum 50% of Floor Area	0				1			
No	d. Minimum 75% of Floor Area	0				1			
No	2. Thermal Mass Floors: Floor Covering Other than Carpet on 50% or More of Concrete Floors	0		1					
No	3. Flooring Meets Section 01350 or CRI Green Label Plus Requirements (50% Minimum) [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			2				
	Total Available Points in Flooring = 7	0							
M. APPLIANCES AND LIGHTING			Points Available Per Measure						
	1. Install Water and Energy Efficient Dishwasher								
No	a. ENERGY STAR (total 1 point)	0		1					
No	b. Dishwasher Uses No More than 6.5 Gallons/Cycle (total 2 points)	0					1		
	2. Install ENERGY STAR Clothes Washing Machine with Water Factor of 6 or Less								
No	a. Meets Energy Star and CEE Tier 2 requirements (modified energy factor 2.0, Water Factor 6.0 or less) (total 3 points)	0		1			2		
No	b. Meets Energy Star and CEE Tier 3 requirements (modified energy factor 2.2, Water Factor 4.5 or less) (total 5 points)	0					2		
	3. Install ENERGY STAR Refrigerator								
No	a. ENERGY STAR Qualified & < 25 Cubic Feet Capacity	0		1					
No	b. ENERGY STAR Qualified & < 20 Cubic Feet Capacity	0		1					
	4. Install Built-In Recycling Center and Composting Center								
No	a. Built-In Recycling Center	0				2			
No	b. Built-In Composting Center	0				1			
	Total Available Points in Appliances and Lighting = 12	0							
N. OTHER			Points Available Per Measure						
No	1. Incorporate GreenPoint Rated Checklist in Blueprints - *Required*	0				R			
No	2. Develop Homeowner Manual of Green Features/Benefits [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0		1	1		1		
	Total Available Points in Other = 3	0							
O. COMMUNITY DESIGN & PLANNING (maximum 20 points in this section)			Points Available Per Measure						
	1. Develop Infill Sites								
No	a. Project is Located in a Built Urban Setting with Utilities in Place for Fifteen Years	0	1			1			
No	b. Development is Located within 1/2 Mile of a Major Transit Stop	0	2						

Enter Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Blueprint Page No.	Notes
	2. Cluster Homes & Keep Size in Check								
No	a. Cluster Homes for Land Preservation	0	1			1			
	b. Conserve Resources by Increasing Density (1 pt for every 5 u/a greater than 10 u/a) Enter Project Density (In Units Per Acre)	0	2			2			
No	c. Home Size Efficiency	0				9			
	3. Subdivision Layout & Orientation to Improve Natural Cooling and Passive Solar Attributes	0	3	7					
	4. Design for Walking & Bicycling								
0	a. Pedestrian Access to Neighborhood Services within ½ Mile: 1) Community Center/Library; 2) Grocery Store; 3) School; 4) Day Care; 5) Laundry; 6) Medical; 7) Entertainment/Restaurants; 8) Post Office; 9) Place of Worship 10) Bank: Enter number of services	0	2						
No	b. Development is Connected with A Dedicated Pedestrian Pathway to Places of Recreational Interest within 1/2 mile	0	1						
No	c. At Least Two of the Following Traffic-Calming Strategies: - Designated Bicycle Lanes are Present on Roadways; - Ten-Foot Vehicle Travel Lanes; - Street Crossings Closest to Site are Located Less Than 300 Feet Apart; - Streets Have Rumble Strips, Bulbouts, Raised Crosswalks or Refuge Islands	0	2						
	5. Design for Safety & Social Gathering								
No	a. All Home Front Entrances Have Views from the Inside to Outside Callers	0	1						
No	b. All Home Front Entrances Can be Seen from the Street and/or from Other Front Doors	0	1						
No	c. Orient Porches (min. 100sf) to Streets and Public Spaces	0	1						
	6. Design for Diverse Households								
No	a. All Homes Have at Least One Zero-Step Entrance	0	1						
No	b. All Main Floor Interior Doors & Passageways Have a Minimum 32-Inch Clear Passage Space	0	1						
No	c. Locate at Least a Half-Bath on the Ground Floor with Blocking in Walls for Grab Bars	0	1						
No	d. Provide Full-Function Independent Rental Unit	0	1						
	Total Achievable Points in Community Design & Planning = 20	0							
P. INNOVATION (maximum 20 points in this section)			Possible Points						
	A. Site								
No	1. Reduce Heat-Island Effect - Install light-colored, high albedo materials (solar reflectance index >= 0.3) for at least 50% of site's non-roof impervious surfaces	0	1						
No	2. Build on Designated brownfield site	0	3						
	B. Foundation [*Points automatically granted when project qualifies for measure J3: ES with IAQ]								
No	1. Install a Foundation Drainage System	0				2			
No	2. Sealed and Moisture Controlled Crawlspace	0			2				
	C. Landscaping								
No	1. Meets Bay-Friendly Landscape Program Requirement (mutually exclusive with P.C.2)	0					4		
No	2. Meets California-Friendly Landscape Program Requirement	0					4		
	3. Rain Water Harvesting System (1 point for <350 gallons, 2 points for > 350 gallons)						2		
No	a. Less than 350 gallon capacity	0					1		
No	b. Greater than 350 gallon capacity	0					2		
No	4. Assess Site Climate, Exposure, Topography, and Drainage	0					1		
No	5. Perform a Soil Analysis	0					1		
No	6. Irrigation System Uses Recycled Wastewater	0					1		
No	7. FSC Certified, Recycled Plastic or Composite Lumber - Fencing: 70%	0				1			
	D. Structural Frame and Building Envelope								
	1. Design, Build and Maintain Structural Pest and Rot Controls								
No	a. Locate All Wood (Siding, Trim, Structure) At Least 12" Above Soil	0				1			
No	b. All Wood Framing 3 Feet from the Foundation is Treated with Borates (or Use Factory-Impregnated Materials) OR Walls are Not Made of Wood	0			1				
No	2. Use Moisture Resistant Materials in Wet areas of Kitchen, Bathrooms, Utility Rooms, and Basements [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			1				
	3. Use FSC Certified Engineered Lumber (3 points maximum)								
No	a. Beams and Headers	0				1			
No	b. Insulated Engineered Headers	0				1			
No	c. Wood I-Joists or Web Trusses for Floors	0				1			
No	d. Wood I-Joists for Roof Rafters	0				1			
No	e. Engineered or Finger-Jointed Studs for Vertical Applications	0				1			
No	f. Roof Trusses: 100%	0				1			
	4. FSC Certified Wood								
No	a. Dimensional Lumber, Studs and Timber: 100%	0				2			
No	b. Panel Products: 100%	0				2			
	E. Exterior Finish								
No	1. Green Roofs (25% of roof area minimum)	0	1	1					
No	2. Flashing Installation Techniques Specified [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0				1			
	F. Insulation								
	G. Plumbing								
No	1. Greywater Pre-plumbing (includes washing machine at minimum)	0					1		
No	2. Greywater System Operational (includes washing machine at minimum)	0					2		
No	3. Innovative Wastewater Technology (Constructed Wetland, Sand Filter, Aerobic System)	0					1		
No	4. Composting or Waterless Toilet	0					2		
No	5. Install Drain Water Heat-recovery System	0		1					
	6. Install Water Efficient Fixtures								
No	a. Showerheads or Shower Towers Use <2.0 Gallons Per Minute (GPM) Total	0					1		
No	b. Faucets - bathrooms <1.5 gpm	0					1		
No	c. Faucets - Kitchen & Utility <2.0 gpm	0					1		
	H. Heating, Ventilation, and Air Conditioning								
No	1. Humidity Control Systems (only in California humid/marine climate zones 1,3,5,6,7)	0			1				

Enter Project Name		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Blueprint Page No.	Notes
	I. Renewable Energy								
No	1. Extraordinary Passive Solar Design (> 50% of load) That is Not Already Reflected in T-24 Modeling	0		5					
	J. Building Performance								
No	1. Test Total Supply Air Flow Rates	0		1					
	2. Energy Analysis Design Review								
No	a. Title-24 prepared and signed by CABEC Certified Energy Analyst	0		1					
No	b. Participation in utility incentive program	0		1					
	K. Finishes								
	1. Use Environmentally Preferable Materials for Interior Finishes								
No	a. Cabinets (80% minimum)	0				1			
No	b. Interior Trim (80% minimum)	0				1			
No	c. Shelving (80% minimum)	0				1			
No	d. Doors (80% minimum)	0				1			
No	e. Countertops (80% minimum)	0				1			
	L. Flooring								
No	1. Flooring Meets Section 01350 or CRI Green Label Plus Requirements (80% Minimum) [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0			1				
	M. Appliances								
	N. Other								
No	1. Homebuilder's Management Staff are Certified Green Building Professionals	0	1						
No	2. Detailed Durability Plan [*Points automatically granted when project qualifies for measure J3: ES with IAQ]	0				2			
No	3. Third-Party Verification of Implementation of Durability Plan	0				2			
0	4. Materials Sourced, Processed and Manufactured Within a 500 Mile Radius of the Home	0	1+						
No	5. Comprehensive Owner's Manual and Homeowner Educational Walkthroughs	0		1					
	6. Additional Innovations: Points to be assessed by Build It Green and GreenPoint Rater.								
No	a. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	b. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	c. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	d. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	e. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	f. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	g. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
No	h. Describe Innovation Here, and Enter Possible Points in Columns L-P	0							
	Total Achieveable Points in Innovation = 20	0							
Summary									
	Total Available Points in Specific Categories		32+	125+	51+	103+	71+		
	Minimum Points Required in Specific Categories		0	30	5	6	9		
	Total Points Achieved	**0**	**0**	**0**	**0**	**0**	**0**		

Project has not yet met the following recommended minimum requirements:

- *Total Project Score of At Least 50 Points*
- *Required measures:*
  - *-A3a: 50% waste diversion by weight*
  - *-J2: 15% above Title 24*
  - *-N1: Incorporate GreenPoint Rated Checklist into blueprints*
- *Minimum points in specific categories:*
  - *-Energy (30 points)*
  - *-IAQ/Health (5 points)*
  - *-Resources (6 points)*
  - *-Water (9 points)*

APPENDIX B
Moraga Design Guidelines

Planting Palettes from the Moraga Transportation Corridor Streetscape Plan and Drought Tolerant, Fire Resistant Native Trees and Shrubs

Planting and Character

Moraga Character

The Town of Moraga is nestled in rolling California hills. It has a distinct sense of place, connected to its natural setting. It has a semi-rural feel, and is characterized by the use of natural materials, such as stone and wood, and by the predominance native plants. Beautification projects should build on these aspects of Moraga's identity. The images on this page show examples of existing elements in the Town.

Plant palettes

The Town of Moraga is characterized by predominantly native plantings. The use of natives has numerous advantages and benefits, including:

- Integrating the community into the natural surroundings
- Suitability to the local climate and soil conditions
- Lower water and maintenance requirements
- Habitat value
- Emphasizing and highlighting Moraga's "sense of place"

The Town of Moraga encourages planting of native species over non-native species and encourages applicants to refer to the Native Plant Society website at www.nps.org to check that the plants that you select are not invasive species.

Plantings for the Moraga area fall within several general groupings or "palettes," which may be appropriate in different contexts. In some circumstances, it may be appropriate to use non-native plants that are horticulturally compatible with Moraga's climate and soils. For example, non-natives may be more suitable as street trees planted in sidewalk cutouts, or as accent planting at commercial areas.

The following pages give examples of plant palettes appropriate for use along Moraga's scenic corridors.

Oak Palette

The oak palette is the predominant plant grouping which occurs naturally in the Moraga area. Plants from this group are appropriate on hillside locations, sunny open areas, and along the tops of stream banks. Excessive water during the normally dry summer periods may cause root fungus in oaks, so they should not be planted adjacent to lawns or other areas that will be watered regularly during summer months.

OAK PALETTE

Scientific Name	Common Name	Deer Resistant	Native Plant	Low Water	Maintenance
Tree					
Aesculus californica	California Buckeye	•	•	•	L*
Cercis occidentalis	Western redbud	•	•	•	L*
Quercus agrifolia	Coast Live Oak	•	•	•	L*
Quercus Ilex	Holly Oak	•		•	L*
Quercus suber	Cork Oak	•		•	L*
Shrubs					AP
Arbutus unedo 'Compacta'	Strawberry Tree	•		•	L
Arctodtaphylos spp.	Manzanita	•	•	•	L
Arctostaphylos	Vine Hill Manzanita		•	•	L
Berberis spp.		•	•		L
Carpenteria californica	Bush Anemone		•	•	L
Ceanothus spp.	Wild Lilac	•	•	•	L
Cistus sp.	Rockrose	•		•	L
Correa sp.	Australian Fuchsia	•		•	L
Cotoneaster 'Low Fast'	Bearberry Cotaneaster	•		•	L
Dendromecon harfordii	Island Bush Poppy		•	•	L
Eriogonum species	Wild Buckwheat	•	•	•	L
Fragaria spp.	Ornamental Stawberry	•	•		L
Fremontodendron cvs	Flannel Bush	•	•	•	L
Garrya elliptica	Coast Silktassel	•	•	•	L
Heteromeles arbutifolia	California Holly	•	•	•	L
Myrica californica 'Compacta'	Pacific Wax Myrtle	•	•	•	L
Prunus ilicifolia	Hollyleaf Cherry		•	•	L
Prunus lyonii	Catalina Cherry		•	•	L
Rhamnus californica 'Eve Care'	Coffeeberry	•	•	•	L
Rhamnus crocea	Redberry	•	•	•	L
Rhus integrifolia	Lemonade Berry	•	•	•	L
Rhus ovata	Sugar Bush	•	•	•	L
Ribes indecorum	White Flowering Currant	•	•	•	L
Ribes malvaceum	Chaparral Currant	•	•	•	L
Ribes spp.	Currant, Gooseberry	•	•	•	L
Sarcococca ruscifolia		•			L
Salvia clevelandii	California Blue Sage	•	•	•	L
Low Shrubs					
Arctosaphylos edmundsii &cvs	Little Sur Manzanita	•	•	•	L
Arctostaphylos hookeri & cvs	Monterey Manzanita	•	•	•	L
Baccharis pilularis cvs	Dwarf Coyote Brush	•	•	•	L
Ceanothus griseus horizontalis	Carmel Creeper	•	•	•	L
Ceanothus			•	•	L

L: Low maintenance - annual cleanup
L*: Annual pruning first two years to establish proper branching habit
AM: Annual mowing or cutback
AP: Annual pruning
HP: Multiple prunings per year

Correa pulchella		•	•		L
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster	•		•	L
Cotoneaster salicifolius 'Repens'	Willowleaf Cotoneaster	•		•	L
Cotoneaster spp.	Cotoneaster	•		•	L
Galvezia speciosa	Island Bush Snapdragon		•	•	L
Keckiella cordifolia			•	•	L
Mahonia aquifolium 'Compacta'	Oregon Grape	•	•		L
Myrtus communis	Myrtle	•		•	L
Ribes speciosum	Fuchsia-Flowering Gooseberry	•	•	•	L
Ribes viburnifolium	Catalina Perfume, Everbreen Currant	•	•	•	L
Santolina		•			L
Sollya heterophylla	Australlian Bluebell Creeper	•		•	L
Symphorocarpus spp.	Snowberry, Coralberry	•	•	•	L
Perennials					
Mimulus spp.	Sticky Monkey Flower	•	•	•	L
Heuchera maxima & hybrids	Island Alum Root	•	•		L
Iris douglasiana		•	•		L
Penstemon heterophylla		•	•		L
Penstemon species	Beard Tongue	•	•		L
Romneya coulteri & ciltivars	Matilija Poppy	•	•	•	L
Salvia spp.	Sage	•		•	L
Grass					
Muhlenbergia rigens	Deer Grass	•	•	•	AM
Ground Cover					
Erigeron Karvinskianus	Santa Barbara Daisy			•	AM
Fragaria spp.			•	•	L
Geranium spp.		•		•	L
Rubus pentalobus	Bramble				L







Redwood Palette

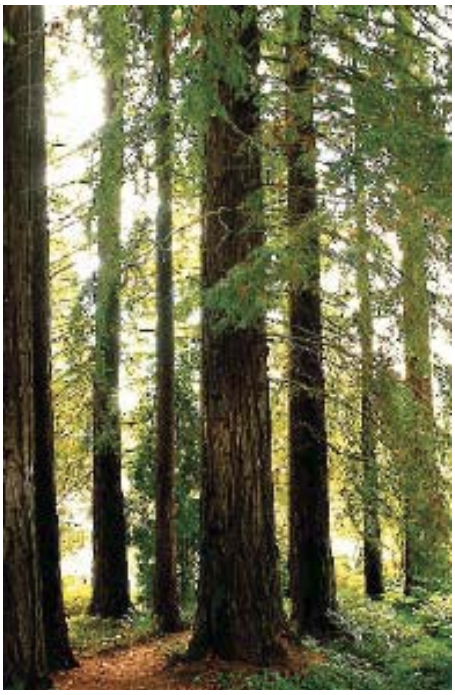
The redwood palette is appropriate in canyon and valley settings. Redwoods need summer irrigation at least for the first 5 years, and hot dry locations inhibit their growth.`

REDWOOD PALETTE

Scientific Name	Common Name	Deer Resistant	Native Plant	Low Water	Maintenance
Tree					
Acer circinatum	Vine Maple	•	•		L*
Acer macrophyllum	Big Leaf Maple		•		L*
Arbutus menziesii	Madrone, Madrona	•	•	•	L*
Cercis occidentalis	Western Redbud	•	•	•	L*
Cornus canadensis	Dogwood			•	L*
Large Shrub					
Calycanthus occidentalis	Spice Bush	•	•	•	L
Philadelphus lewisii	Wild Mock Orange		•	•	L
Rhododendron spp.		•	•		AP
Ribes sanguineum		•	•		L
Ribes spp. (aureum, , viburnifolium, speciosum)	Currant, Gooseberry	•	•	•	L
Woodwardia fimbriata	Giant Chain Fern	•	•		L
Small Shrub					
Anemone hybrida	Japanese Anemone	•			L
Carpenteria californica	Bush Anemone	•	•	•	L
Gaultheria shallon	Salal	•	•	•	L
Perennials					
Brunnera macrophylla	Brunnera				L
Dicentra formosa	Western Bleeding Heart	•	•		L
Helleborus spp.		•			L
Heuchera spp.	Coral Bells, Alum Root	•	•	•	L
Helichrysum petiolare	Licorice Plant	•			L
Ground Cover					
Asarum caudatum	Wild Ginger		•		L
Bergenia spp.		•			L
Fragaria spp.	Ornamental Stawberry	•	•		L
Iris douglasiana		•	•	•	L
Lamium maculatum	Spotted Nettle				L
Oxalis oregana	Redwood Sorrel, Oregon Oxalis		•		L
Polystichum munitum	Sword Fern	•	•		L
Symphorocarpus spp.	Snowberry, Coralberry	•	•	•	L
Grass					
Carex spp.	Sedge	•	•		AM
Juncus spp.	Rush	•	•		AM

L: Low maintenance - annual cleanup
L*: Annual pruning first two years to establish proper branching habit
AM: Annual mowing or cutback
AP: Annual pruning
HP: Multiple prunings per year

REDWOOD PALETTE



Traditional Palette

Many non-native plants commonly used in landscape applications are well suited for Moraga's climate, and may be appropriate where particular shapes, forms, or colors are desired. This traditional palette may be appropriate in commercial areas, or along streetscapes with a more suburban feel. They often add color and interest and may be used for emphasizing focal areas.

TRADITIONAL PALETTE

Scientific Name	Common Name	Deer Resistant	Native Plant	Low Water	Maintenance
Tree					
Fraxinus oxycarpa 'Raywood'	Raywood Ash				L*
Magnolia grandiflora	Southern Magnolia	•			L*
Pistachia chinensis	Chinese Pistache	•			L*
Prunus 'Krauter Vesuvius'	Flowering Plum				L*
Pyrus calleryana 'Bradford'	Bradford Pear				L*
Robinia ambigua 'Idahoensis'	Idaho Locust				L*
Ulmus parvifolia	Chinese Elm				L*
Medium Shrubs					
Arbutus unedo 'Compacta'	Compact Strawberry Bush	•		•	AP
Callistemon'Little John'	Dwarf Bottlebrush	•		•	L
Cistus sp.	White Rock Rose	•		•	L
Coleonema spp.	Breath of Heaven			•	L
Daphne odora	Winter Daphne	•		•	L
Dietes vegeta	African Iris	•			L
Escallonia sp.	Escallonia			•	L
Euryops pectinatus		•		•	L
Gaura lindheimerii	Gaura				L
Grevillea 'Noelii'		•		•	L
Lavandula sp.	Lavender	•		•	L
Myrtus communis	Myrtle	•		•	AP
Nandina domestica	Heavenly Bamboo			•	L
Perovskia atriplicifolia	Russian Sage	•		•	L
Phormium tenax sp	New Zealand Flax	•		•	L
Pittosporum tobira 'Wheeler's Dwarf'	Dwarf Mock Orange			•	L
Teucrium fruticans	Bush Germander	•		•	L
Viburnum tinus	Laurustinus				AP

Low Shrubs					
Agapanthus sp.	Lily of the nile	•			L
Buxus microphylla var. japonica	Japanese boxwood				HP
Carex sp.	Sedge		•		L
Coreopsis spp.	Coreopsis				L
Correa sp.	Australian Fuchsia			•	L
Geranium spp.	Hardy Scented Geranium				L
Hemerocallis evergreen	Day Lily	•			L
Heuchera sanguinea	Coral Bells		•	•	L
Iris douglasiona	Pacific Coast Iris	•	•		L
Kniphofia uvaria	Devil's Poker/Red Hot Poker			•	L
Lantana sp.	Lantana			•	L
Limonium perezil	Statice			•	L
Liriope muscari	Lily Turf	•		•	L
Muhlenbergia rigens	Deer Grass	•	•		L
Myrtus communis 'Compacta'	Dwarf Myrtle	•		•	AP
Nepeta sp.	Catnip	•		•	L
Penstemon sp.	Penstemon	•	•		L
Santolina sp.	Lavender Cotton	•		•	L
Scaevola 'Mauve Clusters'	Fan Flower			•	L
Stipa sp.	Needle Grass	•		•	L
Teucrium chamaedrys	Germander	•		•	L
Tulbaghia violacea 'Silver Lace'	Society Garlic	•			L
Viburnum tinus compacta	Viburnum				AP

Groundcovers					
Acacia redolens		•		•	L
Ajuga reptans	Carpet Bugle	•			L
Carpobrotus	Sea Fig	•		•	L
Ceanothus sp.	California Lilac	•	•	•	L
Ceratostigma plumbaginoides	Dwarf Plumbago	•		•	L
Coprosoma kirkii 'Verde Vista	Prostrate Mirror Plant	•		•	L
Cotoneaster 'Low Fast'	Cotoneaster	•		•	L
Delosperma alba	White Trailing Ice Plant	•		•	L
Drosanthermum floribundum rosea	Ice Plant	•		•	L
Erigeron karvinskianus	Santa Barbara Daisy	•	•	•	AM
Festuca glauca	Californa Fescue	•	•	•	AM
Gazania	Orange Gazania				L
Myoporum parvifolium prostrate	Myoporum			•	L
Oenothera speciosa childsii	Mexican Evening Primrose			•	L
Osteospermum fruticosum	African Daisy	•		•	AM
Rosa 'Carpet Rose'	Carpet Rose				L
Rosmarinus officinalis	Rosemary	•		•	L
Trachelospermum asiaticum	Asiatic Jasmine				L
Trachelospermum jaminoides	Star Jasmine	•			AM
Vinca minor	Dwarf Periwinkle				L
Viola labradorica			•		L

TRADITIONAL PALETTE








Grasses and Bioswale

Bioswale planting must be adaptable to high moisture during winter months as well as dry summer conditions. The bioswale and grass palette includes plants that help filter stormwater runoff. Many are seasonal grasses that will turn dry in summer months without supplemental irrigation, as do Moraga's grassy hillsides.

BIOSWALES

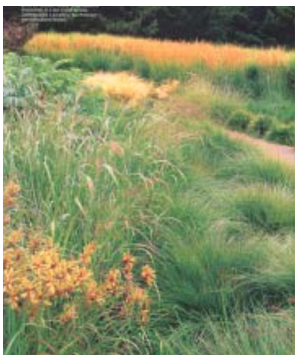
Scientific Name	Common Name	Deer Resistant	Native Plant	Low Water	Maintenance
Acorus gramineus	Japanese Sweet Flag	•			L
Carex spp.	Sedge	•	•	•	L
Hemerocallis spp.	Daylily	•		•	L
Juncus spp.	Rush		•		L
Molinia caerulea 'Moor Flamme', 'Varigata'	Moor Grass	•			L
Panicum virgatum	Switch Grass	•			L

SWALES & GRASSES










Drought Tolerant, Fire Resistant, Native Tree and Shrub Species

Native Trees	
California Buckeye (*Aesculus californica*)	California Sycamore (*Platanus racemosa*)
Incense-cedar (*Calocedrus decurrens*)	Hollyleaf Cherry (*Prunus ilicifolia*)
Western Redbud (*Cercis occidentalis*)	Blue Oak (*Quercus douglasii*)
Mountain Mahogany (*Cercocarpus*)	California Black Oak (*Quercus kelloggii*)
Desert Willow (*Chilopsis linearis*)	Valley Oak (*Quercus lobata*)
Ash (*Fraxinus*)	Sumac (*Rhus parvifolia*)
Toyon (*Heteromeles arbutifolia*)	Elderberry (*Sambucus mexicana*)
Catalina Ironwood (*Lyonothamnus floribundus*)	California Redwood (*Sequoia sempervierns*)
Pacific Wax Myrtle (*Myrica californica*)	

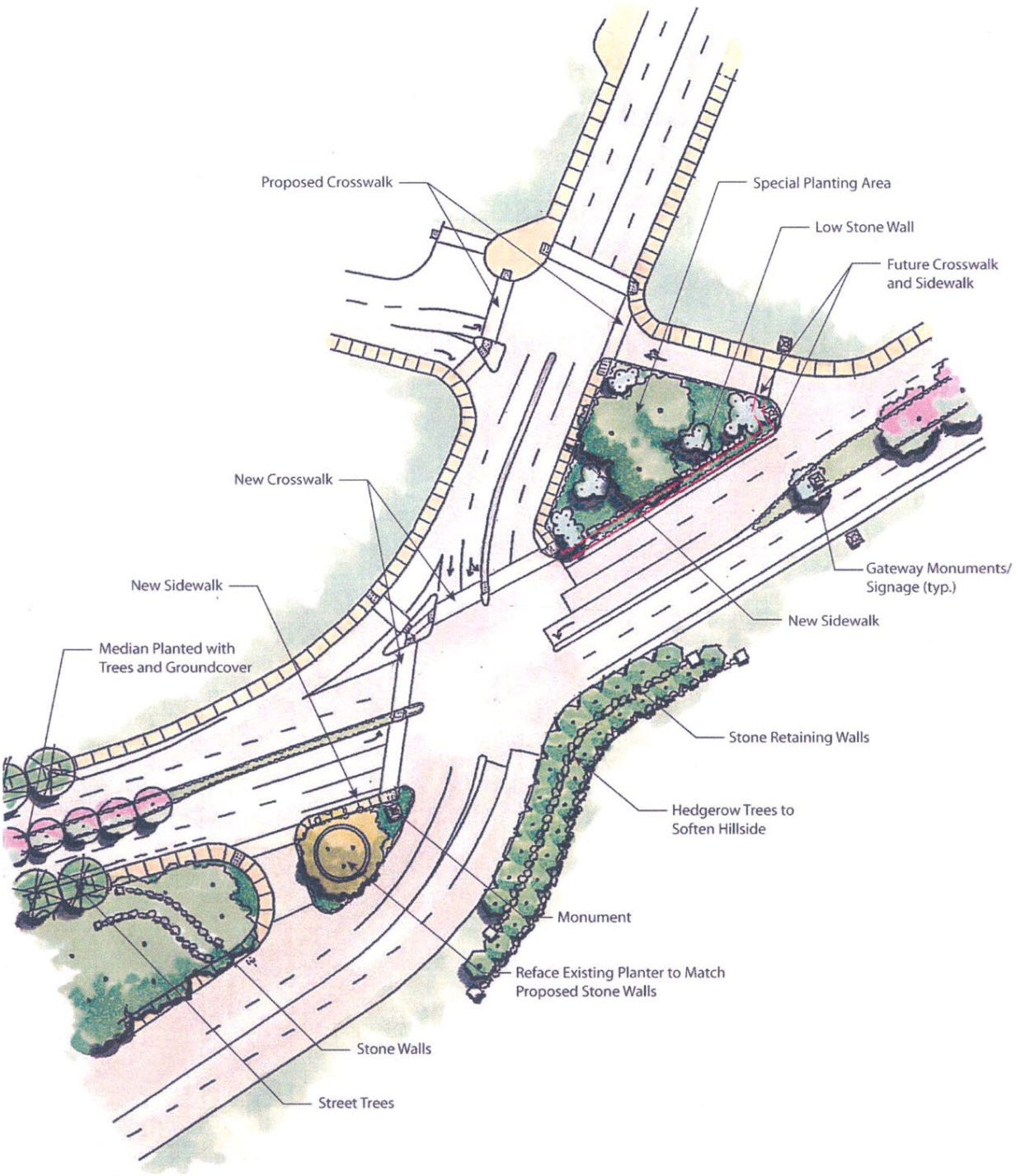
Native Shrubs	
California Buckeye (*Aesculus californica*)	Mahonia (*Mahonia repens*)
Manzanita (*Arctostaphylos*)	Bush Mallow (*Malacothamnus*)
Artemesia (*Artemesia*)	Wax Myrtle (Myrica)
Saltbrush (*Atriplex*)	Wild Mock Orange (*Philadelphus lewisii*)
Bush Anemone (*Carpenteria*)	Hollyleaf Cherry (*Prunus ilicifolia*)
California Lilacs (*Ceanothus*)	Oak (*Quercus*)
Western Redbud (*Cercis occidentalis*)	Rhamnus (*Rhamnus*)
Mountain Mahogany (*Cercocarpus*)	Sumac (*Rhus parvifolia*)
Desert Willow (*Chilopsis linearis*)	Currant (*Ribes*)
Bush Poppy (*Dendromecon rigida*)	Rose (*Rosa*)
Encelia (*Encelia*)	Bramble (*Rubus*)
Flannel Bush (*Fremontodendron*)	Sage (*Salvia*)
Silktassel (*Garrya*)	Elderberry (*Sambucus*)
Toyon (*Heteromeles arbutifolia*)	Solanum (*Solanum*)
Cream Bush (*Holodiscus*)	Snowdrop Bush (*Styrax*)
Tree Mallow (*Lavatera assurgentifolia*)	Snowberry (*Symphoricarpos*)
Pitcher Sage (*Lepechinia*)	Woolly Blue Curls (*Trichostema*)
Lupine (*Lupinus*)	

APPENDIX C
Moraga Design Guidelines

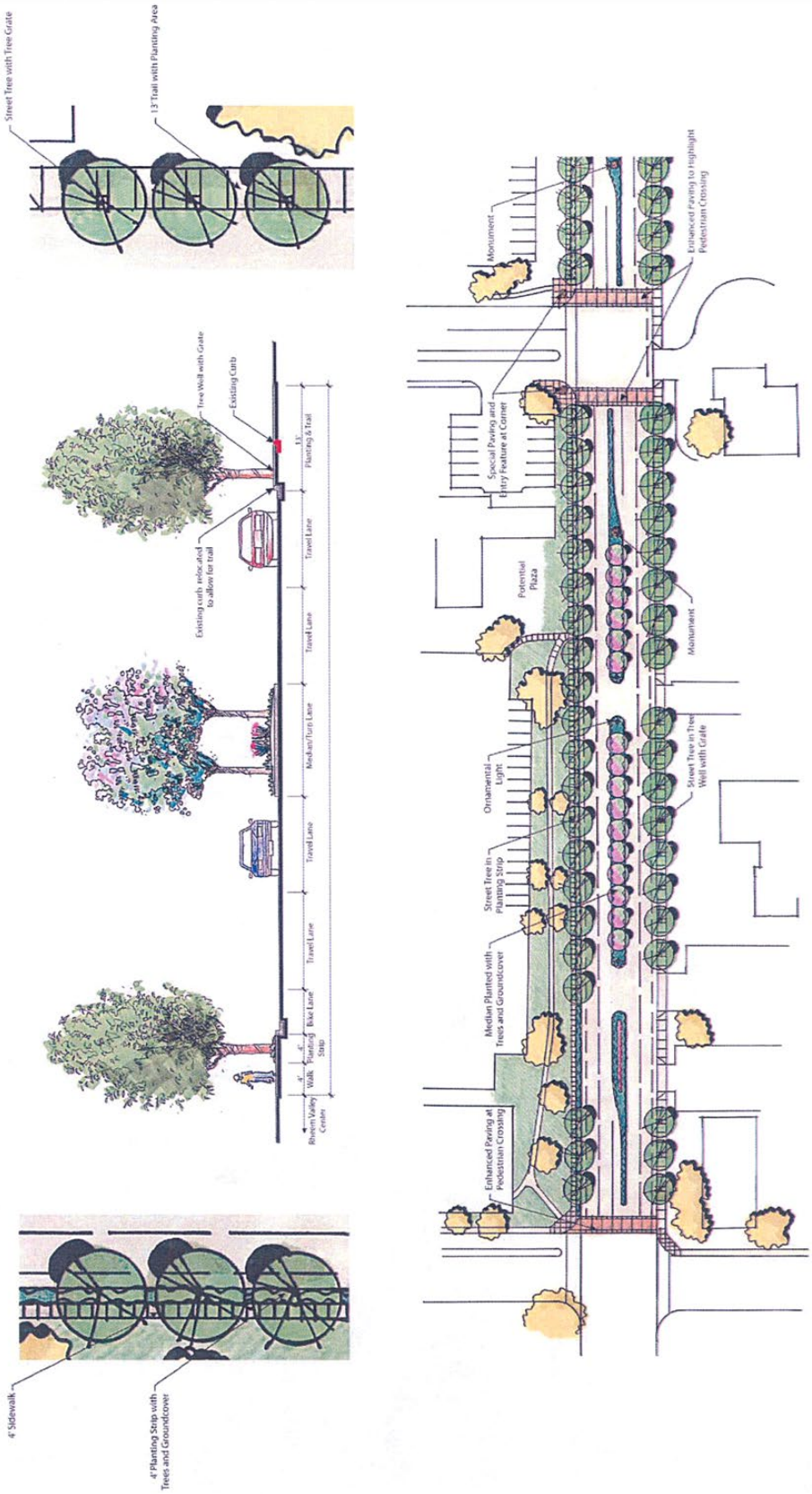
Street and Roadway Enhancement
From the Moraga Transportation Corridor
Streetscape Plan

This appendix addresses desired types of improvements to Moraga's street and roadway corridors in the context of Moraga's semi-rural character. Using Moraga Road as a template, this appendix offers measures to add aesthetic enhancements, increase planting, provide biological storm water treatment where feasible, and enhance pedestrian and bicycle connections and safety. These should be applied along the scenic corridors, as well as at other locations throughout Moraga.

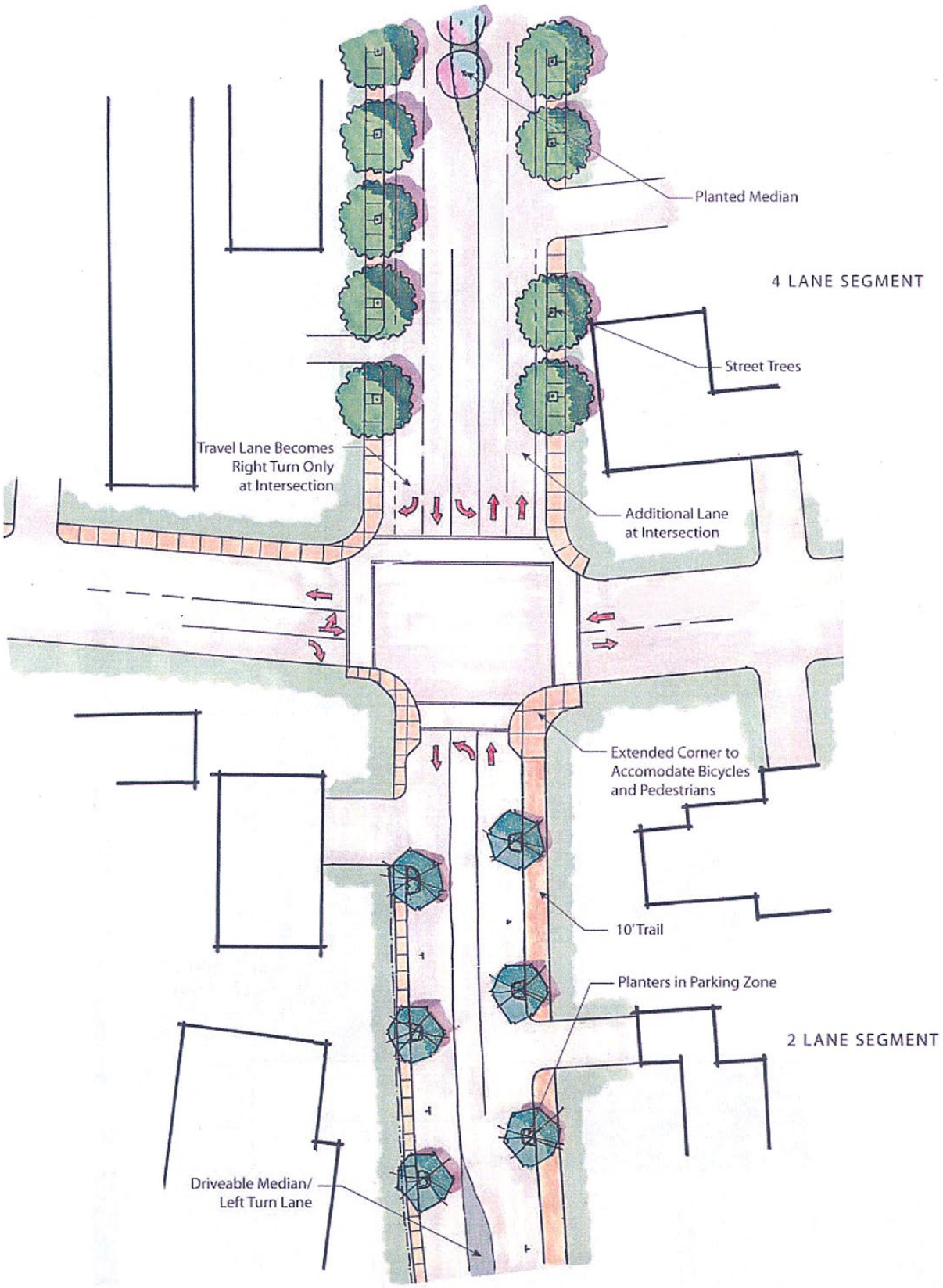
Example of an Intersection of Two Four Lane Roads



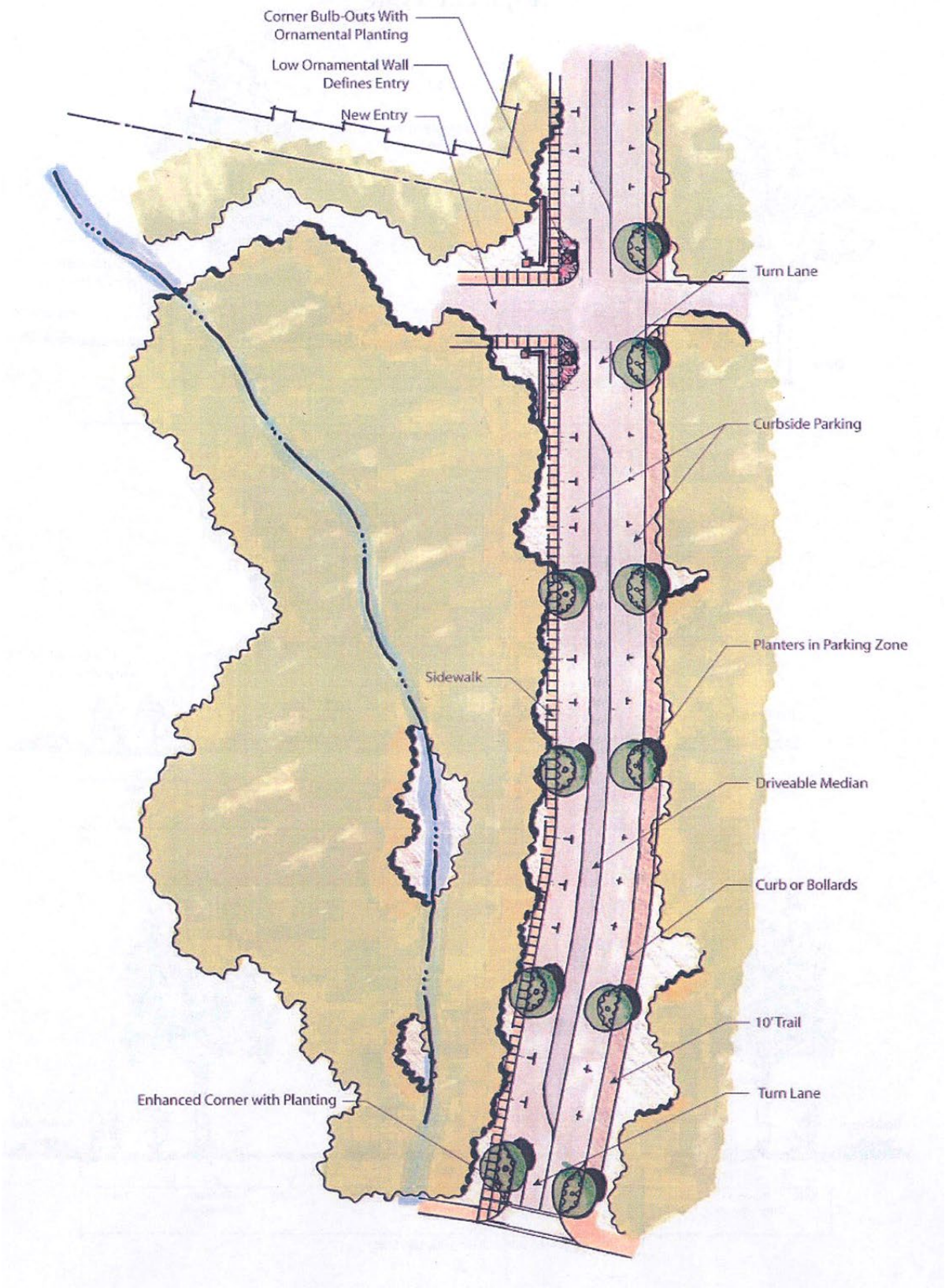
Example of Commercial Center frontage



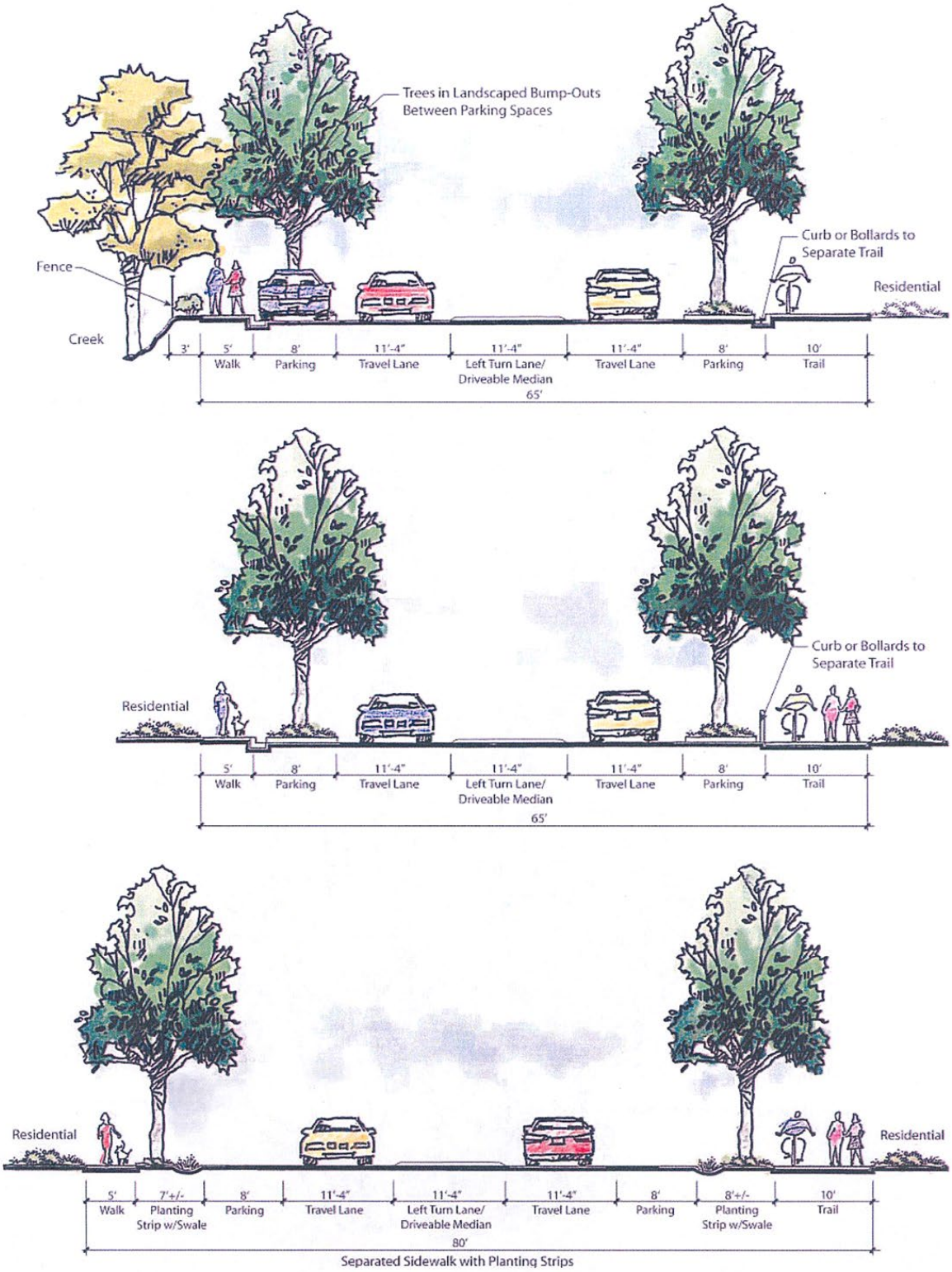
Example of an Intersection with a Four to Two Lane Transition



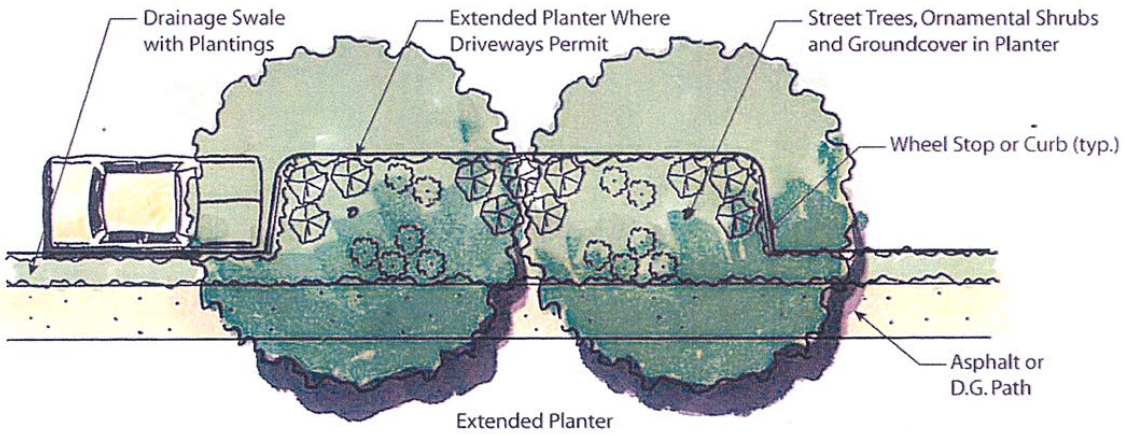
Example of a Two Lane Road with Drivable Turn Lane/Median and Adjacent Trail



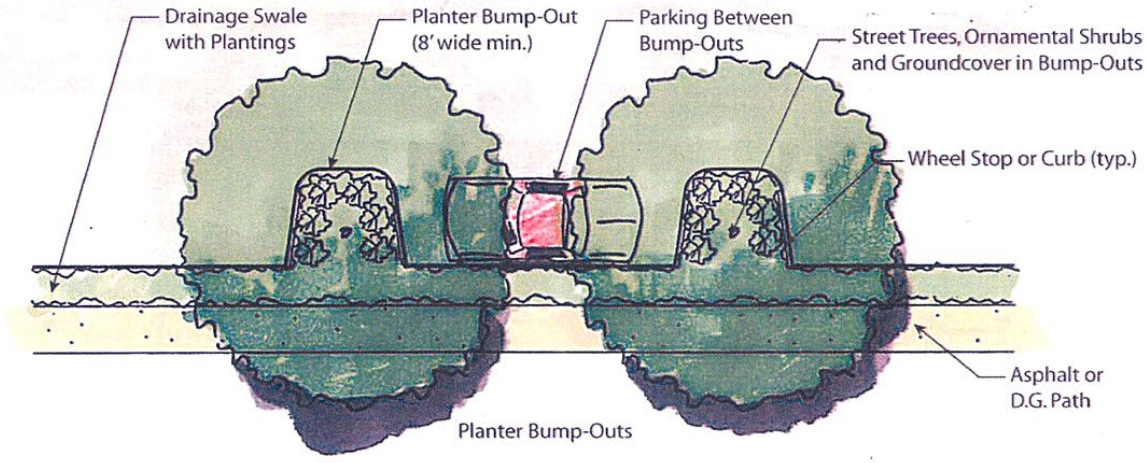
Examples of a Two Lane Road with Drivable Turn Lane/Median and Adjacent Trail



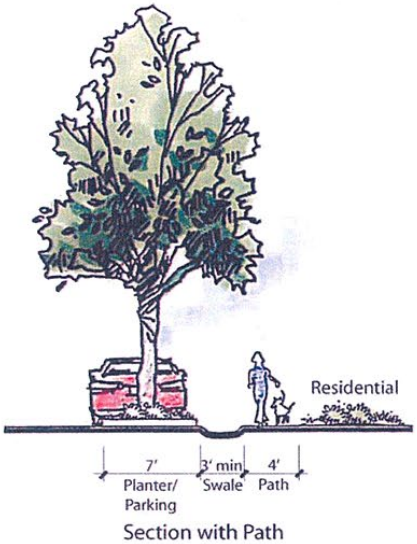
Example of Planters in the Parking Zone



Extended Planter



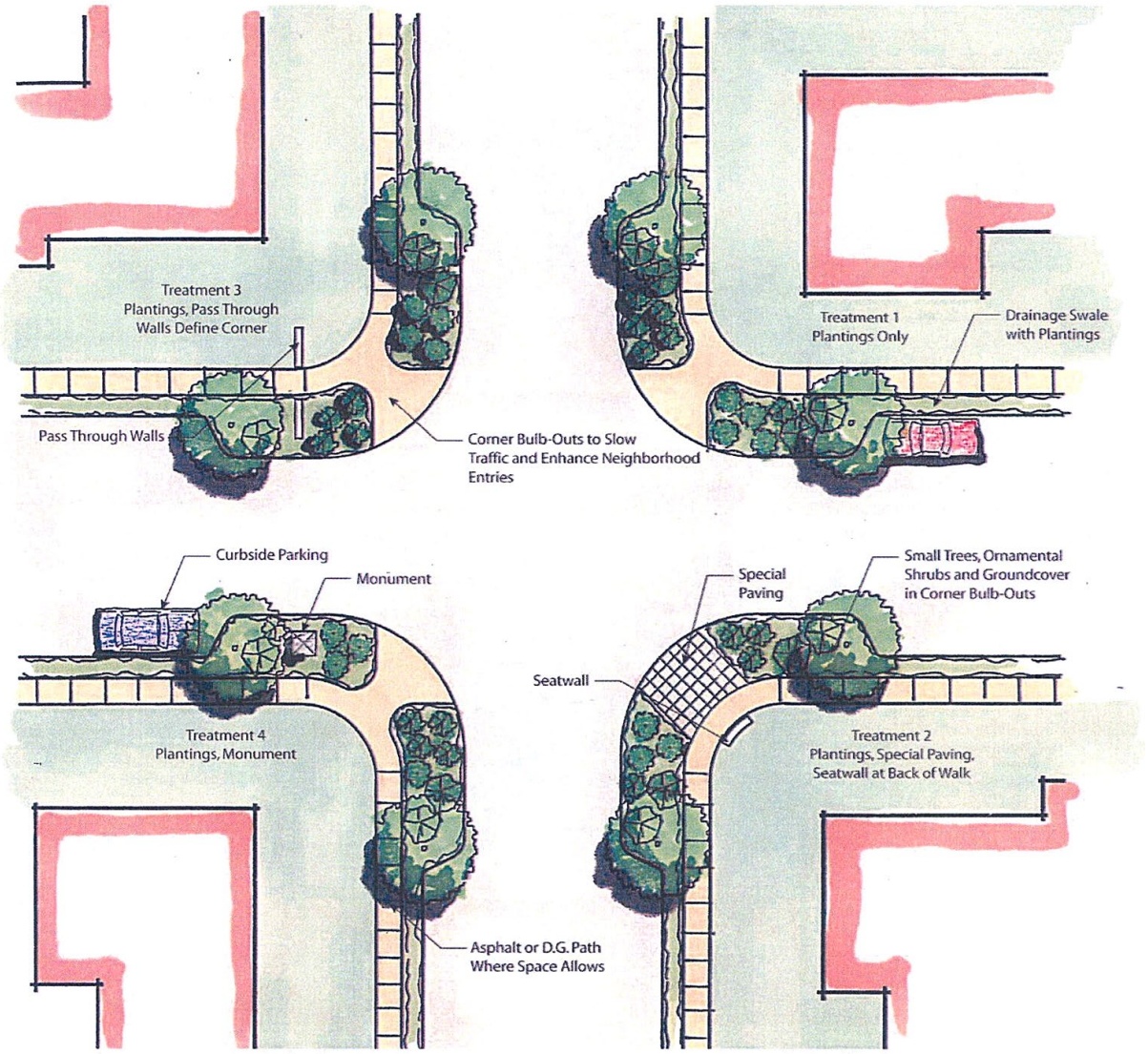
Planter Bump-Outs



Section with Path

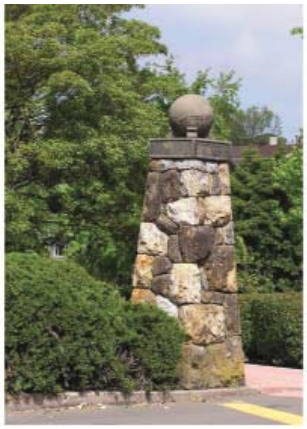
Section without Path

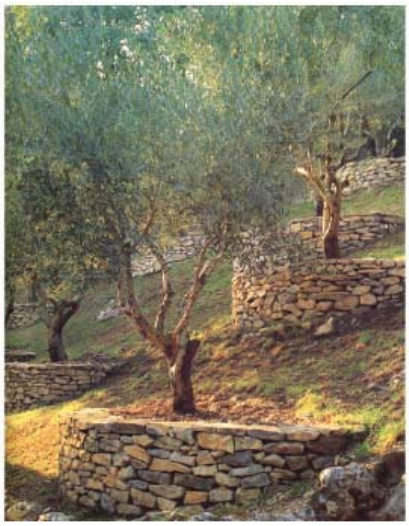
Example of Residential Corner Options

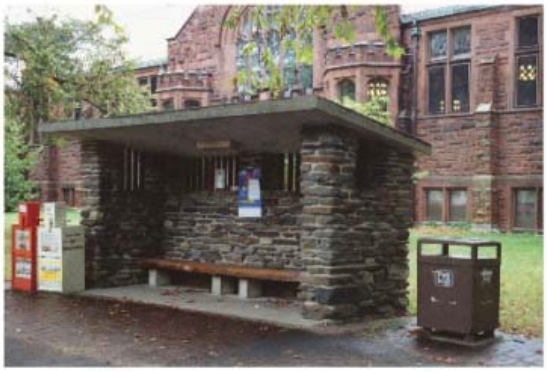


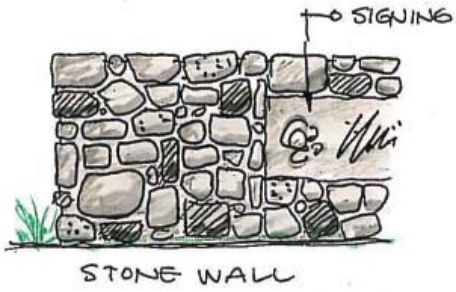
Example Site Elements

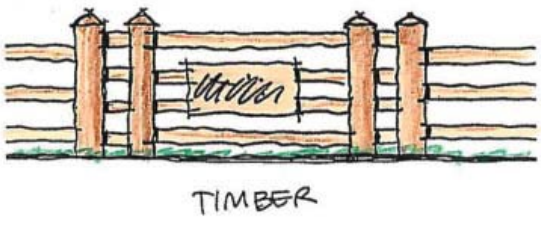
Hardscape elements and site furnishings should reflect Moraga's semi-rural character. Use of natural material, particularly stone, is appropriate. The following pages show examples of site elements and furnishings that may be compatible with Moraga's sense of place.

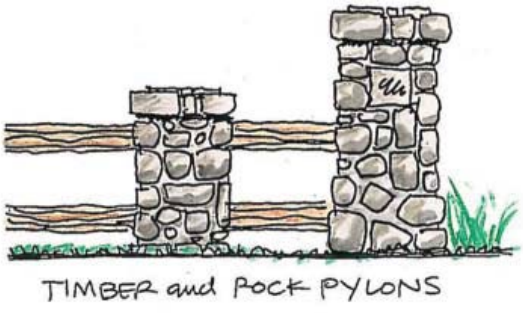








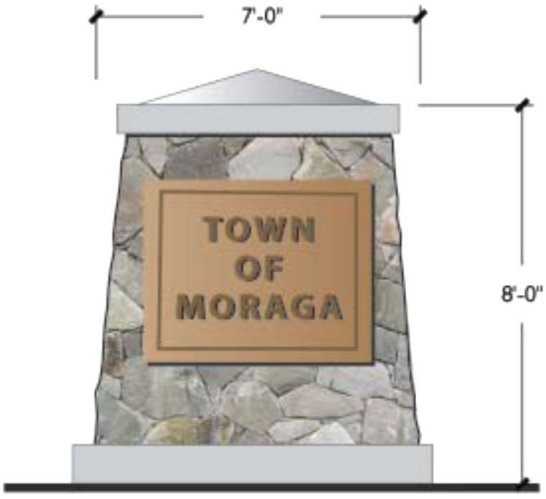




SIGNAGE AND MONUMENTS

Existing Signage

Column Option 2

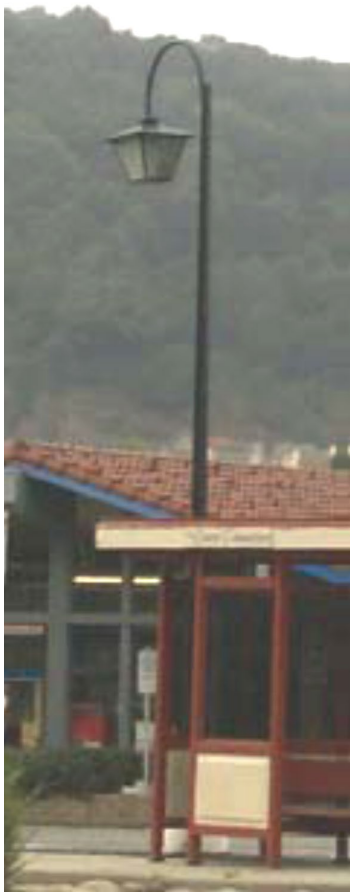


Column Option 1

SIGNAGE

SITE FURNISHINGS

LIGHTING



APPENDIX D
Moraga Design Guidelines

Single Family Residential
Floor Area Ratio (FAR) Guidelines

Adopted by the Planning Commission on
April 15, 2002

I. Purpose

The purpose of these guidelines is to set forth standards that will help prevent new single family residential homes and additions to existing homes where the size and scale of the proposed home would be out of character with an existing neighborhood or surrounding homes; and to maintain the semi-rural character of the Town, while still providing a variety of house sizes. The guidelines are intended to establish the maximum size of a home based on the size of the property, in order to achieve the following goals:

a. Maintain the existing character of established residential neighborhoods;

b. Minimize the out-of-scale appearance of large homes relative to their lot size and to other homes in a neighborhood;

c. Minimize loss of light and privacy to neighbors caused by the construction of large homes;

d. Minimize the dominance of structures on sloping hillside properties;

e. Minimize the environmental damage of tree removal and grading or destruction of natural features which may result from overbuilding;

f. Permit reasonable expansion of existing dwellings.

II. Applicability

These FAR guidelines apply to new single-family residences, additions and remodels to existing residences, and infill development involving new single-family residences. These guidelines do not apply in cases where the Planning Commission or Town Council established alternative FAR standards for new homes approved as part of a Planned Development or Major Subdivision project.

The reviewing body has the authority to permit a floor area greater than the maximum allowed provided that appropriate findings are made as described in Section VI - Modifications. If the findings are geotechnically related, they should be supported by a site specific geotechnical analysis consistent with the Town's General Plan.

The maximum permitted FAR for a proposed project will be determined by the Town through the Design Review and permit approval process The Town may require a reduced FAR depending on individual site characteristics such as parcel size, visibility from streets and other public places, proximity to adjacent development, and project design.

III. Definitions used in these guidelines

a. ATTIC means that space of the building above a story and which is not habitable and may be utilized for storage. The space must be unconditioned.

b. BASEMENT means that portion of a building, which is either partly above finished ground surface or all below finished ground surface found between the floor and ceiling or finished floor level directly above. If the height between the ceiling and the finished ground surface adjoining the exterior walls exceeds six feet at any point or if it is utilized as a habitable space/room, the space will be considered a story.

c. FLOOR AREA RATIO means the ratio of the buildings gross floor area divided by the net lot area.

d. GROSS FLOOR AREA means the sum of:
   (1) The area measured on outside walls of the first story of the dwelling;
   (2) Garage area measures on outside walls;
   (3) That portion of any first story room with a ceiling height of 15 feet or more and not a part of a second story;
   (4) Area of the second story measured on outside walls;
   (5) The area of that portion of any attic space that has a clear height of 7 feet above the floor;
   (6) The area of accessory structures greater than 400 square feet in area with permanent foundations, measured on outside walls.

e. INFILL DEVELOPMENT means the development of a lot(s) within an existing subdivision.

f. LOT AREA means the area of a lot in square feet, excluding access easements.

g. MAXIMUM ALLOWABLE FLOOR AREA means the maximum floor area that may be developed on a lot, based on the lot size.

IV. Exemptions

Each of the following structures is excluded from the calculation to determine the maximum allowable floor area.

a. A one-time only building addition of 200 square feet or less in area to an existing residence, if no other additions have been previously approved;

b. A basement or attic, as defined by these guidelines;

c. An accessory building(s) with a total area of less than 400 square feet, other than a garage or carport; and

d. A covered or uncovered balcony, porch, and deck.

e. A legally constructed building which exceeds the maximum floor area permitted by the guidelines and which is destroyed by fire, flood, landslide or other act of nature. Such a building may be rebuilt with up to the same a mount of floor area, subject to approval in accord with Section 8-1704 of the Town's Municipal Code.

f. A new residence in a Planned Development or Major Subdivision, where the maximum floor area of the new homes was approved by the Planning Commission and/or the Town Council.

V. Maximum Floor Area.

Table 1 shows the maximum FAR guidelines that apply to proposed homes on a lot with an area of 1 acre or less.

Table 1: Maximum Floor Area – Lots 1 Acre and Less

Lot Size (sq. ft.)	FAR	Home Size (sq. ft.)
4,999 and less		1,900
5,000	0.380	1,900
5,200	0.378	1,965
5,400	0.376	2,030
5,600	0.374	2,094
5,800	0.372	2,157
6,000	0.370	2,220
6,200	0.368	2,281
6,400	0.366	2,342
6,600	0.364	2,402
6,800	0.362	2,461
7,000	0.360	2,520
7,200	0.358	2,577
7,400	0.356	2,634
7,600	0.354	2,690
7,800	0.352	2,745
8,000	0.350	2,800
8,200	0.348	2,853
8,400	0.346	2,906
8,600	0.344	2,958
8,800	0.342	3,009
9,000	0.340	3,060
9,200	0.338	3,109
9,400	0.336	3,158
9,600	0.334	3,206
9,800	0.332	3,253
10,000	0.330	3,300
10,200	0.328	3,345
10,400	0.326	3,390
10,600	0.324	3,434
10,800	0.322	3,477
11,000	0.320	3,520
11,200	0.318	3,561
11,400	0.316	3,602
11,600	0.314	3,642
11,800	0.312	3,681
12,000	0.310	3,720
12,200	0.308	3,757
12,400	0.306	3,794
12,600	0.304	3,830
12,800	0.302	3,865
13,000	0.300	3,900
13,200	0.298	3,933
13,400	0.296	3,966
13,600	0.294	3,998

Lot Size (sq. ft.)	FAR	Home Size (sq. ft.)
13,800	0.292	4,029
14,000	0.290	4,060
14,200	0.288	4,089
14,400	0.286	4,118
14,600	0.284	4,146
14,800	0.282	4,173
15,000	0.280	4,200
15,200	0.278	4,225
15,400	0.276	4,250
15,600	0.274	4,274
15,800	0.272	4,297
16,000	0.270	4,320
16,200	0.268	4,341
16,400	0.266	4,362
16,600	0.264	4,382
16,800	0.262	4,401
17,000	0.260	4,420
17,200	0.258	4,437
17,400	0.256	4,454
17,600	0.254	4,470
17,800	0.252	4,485
18,000	0.250	4,500
18,200	0.248	4,513
18,400	0.246	4,526
18,600	0.244	4,538
18,800	0.242	4,549
19,000	0.240	4,560
19,200	0.238	4,569
19,400	0.236	4,578
19,600	0.234	4,586
19,800	0.232	4,593
20,000	0.230	4,600
21,000	0.22	4,720
22,000	0.22	4,820
23,000	0.21	4,910
24,000	0.21	4,990
25,000	0.20	5,060
26,000	0.20	5,120
27,000	0.19	5,170
28,000	0.19	5,215
29,000	0.18	5,255
30,000	0.18	5,290
31,000	0.17	5,320
32,000	0.17	5,346
33,000	0.16	5,369
34,000	0.16	5,389
35,000	0.15	5,406

Lot Size (sq. ft.)	FAR	Home Size (sq. ft.)
36,000	0.15	5,422
37,000	0.15	5,437
38,000	0.14	5,451
39,000	0.14	5,464
40,000	0.14	5,476
41,000	0.13	5,486
42,000	0.13	5,493
43,000	0.13	5,498
43,560	0.13	5,500
Greater than 1 acre		5,500 [1]

[1] Applies only to homes that would be visible from a scenic corridor.

For lots greater than one acre where the home would be visible from a scenic corridor, the maximum home size is 5,500 square feet. If a home on a lot greater than one acre would not be visible from a scenic corridor, the maximum size of the home shall be as determined by the Planning Commission (acting either as the Design Review Board or in its regular planning capacity) after consideration of Town policies applicable to the size and scale of proposed new homes.

The maximum gross floor area is determined by multiplying the net square footage of the parcel by the floor area ratio. The maximum floor area shall be adjusted downward in increments of two-tenths of one percent (.002) based upon each additional 200 square feet of net parcel area. For example, a lot with a net parcel size of 10,350 square feet will have a maximum floor area ratio of .328 and a maximum permitted house size of 3,394 square feet.

It is the responsibility of the property owner to provide accurate site and building area data to the Town. The Town, at its sole discretion, may require that the data be prepared at owner's expense by a licensed surveyor or civil engineer.

The maximum FAR guidelines in Table 1 is a starting point for the Town's analysis of a proposed project and do not create any entitlement for an applicant. In each case, site-specific factors may require the Town to reduce the allowed maximum floor area below the default maximum FAR guidelines shown in Table 1. Table 1 does not account for all constraining factors, including but not limited to:

- A buildable area on the lot that is significantly smaller than the total lot size, thus necessitating an unusual siting or building design approach.
- Adjacent existing homes that are significantly smaller than would be allowed by Table 1.
- Lot size in combination with hillside location would result in significant visual impacts on adjacent or nearby existing homes.

Infill lots and remodel expansion projects are often especially challenged by these factors and may require reduced floor areas below the Table 1 values. The maximum FAR for each project shall be evaluated based on the site-specific characteristics.

VI. Modifications

The reviewing body may grant a modification to the FAR standards with appropriate findings relating to the goals identified under Section I (Purpose). The reviewing body should not grant a modification to the FAR standard for projects with one or more of the following adverse design characteristics:

1. Any building addition that requires a variance to a front, side or rear yard property line setback.
2. The use of multiple or stacked retaining walls or retaining walls higher than three (3) feet to create level yard areas on hillside lots.
3. The lack of sufficient driveway maneuvering space or very tight turning radius for access in and out of garages or insufficient guest parking on lots with less than 45-feet of frontage to a public street.
4. Angled exterior wall solely for the purpose of making the house plan conform to the minimum building setback from a property line that is not parallel with the existing building.

The reviewing body may grant a modification to increase the allowed FAR only for projects with low visibility from neighboring properties, streets and other public places. The Town may allow increased FAR to accommodate reasonable use and enjoyment of properties where new development would not create visual impacts or diminish the quality of life for surrounding properties.