# Single-family Residential Design Guidelines

Adopted by the Marin County Board of Supervisors on July 19, 2005.



## Marin County Community Development Agency July 2005

#### Acknowledgments

This document is prepared in memory of Andrea Fox, Senior Planner.

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### Single-family Residential Design Guidelines The Marin County Community Development Agency

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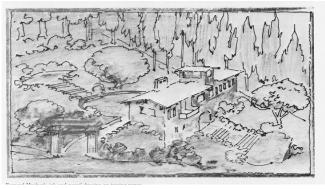
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The overall purpose of the Single-family Residential Design Guidelines is to establish clear and comprehensive design recommendations for all single-family residential development in the unincorporated communities of Marin. The Design Guidelines emphasize essential principles of development, particularly site planning, preservation of natural features, resource conservation, compatibility with neighboring development, location of buildings in relationship to pedestrian paths and streets, landscaping, general building form, massing, and scale.

Key design principles that are articulated in the Design Guidelines would:

- Encourage the use of building stepbacks on the upper floor levels to maintain adequate space, light, and a sense of openness from surrounding residences in existing residential neighborhoods;
- Promote alternative locations and orientations for garage and parking areas in order to emphasize the pedestrian qualities of the streetscape;
- Discourage fencing and retaining walls that front on public streets;
- Encourage building designs that reflect the natural landscape and scale of the surrounding neighborhood through use of smaller building components, minimal cantilevered overhangs, and articulated exterior vertical walls;
- Establish massing and roof design criteria that emphasize the use of smaller elements that reflect the scale of the neighborhood;
- Establish comprehensive guidelines for hillside and ridgeline development governing building location, massing, and roof designs; and
- Provide access to more detailed design guidelines addressing grading, drainage, stream and tree preservation, parking, fire safety, landscaping, resource conservation, green building, and universal design principles.



Sketch of Hillside House with Garden Terraces by Bernard Maybeck, Architect

## I. Introduction

#### A. REALIZING COMMUNITY DESIGN OBJECTIVES IN MARIN COUNTY

In recent decades, residential remodels and new construction in Marin County have significantly changed the character of many of the County's communities. Traffic congestion is often the primary complaint against new development projects. There are also growing community concerns about the incremental, but profound, physical changes that are taking place. In many instances, the special qualities of a place that attracted residents to particular communities are being diminished, or have been lost to recent development.

The primary challenge posed by new single-family projects in existing residential neighborhoods is to create desirable new development which: (1) preserves the scenic natural setting; (2) allows mixed (sizes and styles) residential communities while maintaining the predominant community character; and (3) improves the pedestrian and bicycle access environment within and between neighborhoods.

By applying the Design Guidelines as part of the Design Review process, Marin County has the opportunity to provide positive, constructive direction to development within its jurisdiction. The Design Guidelines can save time, facilitate a positive response to community concerns about development proposals, avoid divisive controversy, reduce unnecessary delays and expenses, and most importantly, achieve higher-quality designs and more livable communities.

#### **B. THE PURPOSE OF DESIGN REVIEW GUIDELINES**

The overall purpose of these Design Guidelines is to establish clear and comprehensive design recommendations for all single-family residential development in the unincorporated communities of Marin. The Design Guidelines are particularly relevant to development proposals that are subject to the County's Design Review process by clarifying and reinforcing the public policy objectives articulated in the Design Review findings of the Marin County Development Code. They should also give clear design direction to applicants and provide County staff, design review boards, and decisionmakers with the tools needed to properly evaluate development proposals within the context of County policies and standards. These Design Guidelines are not intended to alter the historic architectural diversity that can be attributed to many of Marin's neighborhoods, nor should they hinder the continued mixture of architectural styles and design creativity where it reinforces the local context of the natural and built environments.

The Design Guidelines emphasize essential principles of development, particularly site planning, preservation of natural features, compatibility with neighboring development, location of buildings in relationship to pedestrian paths and streets, landscaping, and general building form, massing, and scale. The guidelines do not address highly subjective measures such as architectural styles and other items that are best left to individual preference. The Design Guidelines are intended to educate and motivate owners, developers and designers to author creative projects that contribute to community design objectives. They should not hinder creative efforts and should be applied in a reasonably flexible manner as circumstances warrant.

#### 1. Implementing Marin County Residential Community Design Objectives

- a. Single-family residential projects should incorporate:
  - Environmentally-sensitive site planning principles;
  - High quality architectural design;
  - Innovative use of resource conserving material;
  - Sound construction methods;
  - Green building techniques including reuse and recycling of materials for remodels; and
  - Universal design principles.
- b. The natural beauty of the County, and the public's capability to use and enjoy it, should be preserved.
- c. The design of the built environment should respect and preserve the natural beauty of the County and its environmental resources.
- d. The exterior appearance of proposed structures, along with their associated landscaping, parking, signs, etc., should be compatible and harmonious with the design, scale, and context of surrounding properties.
- e. Conflicts between land uses should be eliminated, environmental values of the site preserved, and adverse physical or visual effects which might otherwise result from unplanned or inappropriate developments, design, or placement minimized or eliminated.

This manual is intended in large part to be an applicant's guide. It discusses issues and opportunities applicable to all single-family residential development projects and describes guidelines that will be used to evaluate single-family residential projects that are subject to the Design Review process.

#### 2. Applicability and Use of the Design Guidelines

The scope of these Design Guidelines includes proposals for an individual single-family residence, whether new or remodeled, as well as multiple single-family residences that may be proposed as part of a larger project (e.g., a Master Plan, Precise Development Plan, and/or Subdivision for a single-family residential project or mixed-use project including single-family residences).

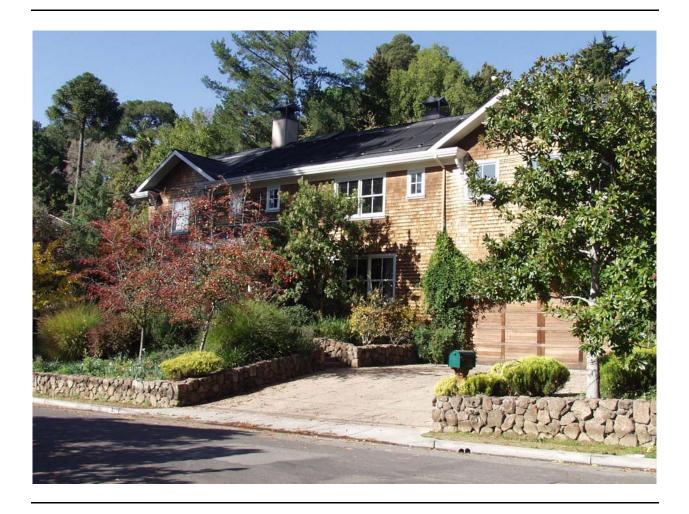
a. First, consult Section II of the Design Guidelines for projects that are subject to Design Review or that otherwise require Design Review findings, such as Master Plan and Precise Development Plan proposals. Each guideline is followed by a

discussion of proper and/or improper application of the guideline. For more information on the County's Design Review process and applicable standards, please refer to Appendices B: Design Review Administrative Procedures and Design Review Submittal Requirements, C: Development Code Design Review Regulations, and D: Development Code Planned District Development Standards. A User's Checklist to the Design Guidelines has also been included as Appendix A.

- b. Second, consult the Technical Appendices for background information as well as summaries of applicable Countywide Plan and Development Code requirements and other helpful information.
- c. Third, consult the Countywide Plan and applicable community plan for standards that are applicable to the development of the property.
- d. Finally, review the recommendations for updates to the listed community planning areas and refer to the current applicable community plan, specific plan or land use policy documents for adopted development standards or guidelines that would apply to a specific project.

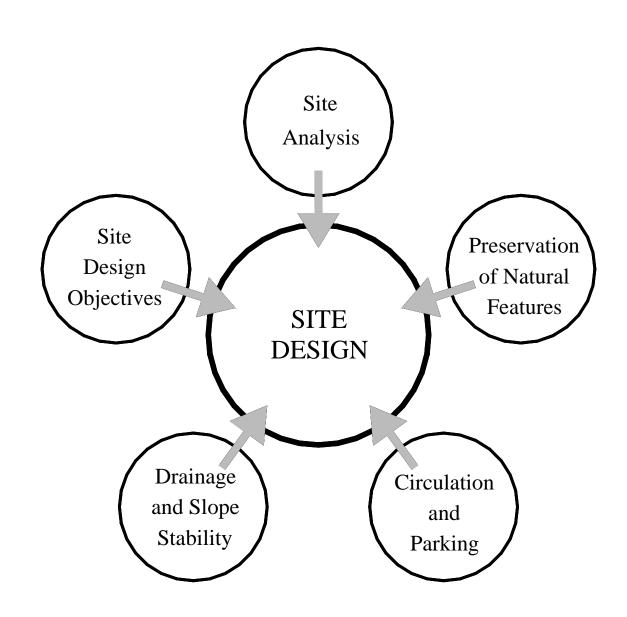
Should a question regarding the guidelines or appendices occur, please consult with the public information service at the Marin County Community Development Agency Planning Division.

## II. Guidelines Applicable to All Single-family Residential Development



## A. The Site Design Process

Every development proposal should include a thorough analysis of existing conditions on and adjacent to the site. An analysis should include a careful evaluation of a site's physical properties, natural features, special problems, visual character, and an examination of the neighboring environment. The analysis will assist the staff, Design Review Boards and the decisionmakers in evaluating a development's relationship to existing conditions, neighboring properties, and the community.



#### **General Site Design Objectives**

Thoughtful site planning results in residential development projects that are integrated with the natural environment, compatible with the surrounding neighborhood, respectful of natural systems, more aesthetically pleasing, and often less expensive to build. A new residential development should:

- Be compatible with the natural features and existing open spaces of the site and neighboring properties;
- Preserve or protect unique or special natural features of the site, such as streams, natural drainage courses and associated riparian areas, landforms, rock outcroppings, mature trees and vegetation, hilltops and ridgelines, and shorelines;
- Avoid unstable or hazardous portions of the site;
- Be energy, water, and resource efficient;
- Be compatible with the scale and character of the local residential neighborhood;
- Respect the existing views, privacy, access to light, and safety of neighboring properties; and
- Reflect the local design goals and policies as expressed in the local community plan.

The design objectives cited above should be implemented in a holistic manner that reinforces the local context of the natural and built environments. Buildings should look as if they belong on the site and are not out of place with their surroundings. Contextual design takes into account the immediate surroundings and incorporates considerations of the local climate, local building materials, and native landscaping materials into the design of buildings and outdoor spaces.

Following are site-planning guidelines that encourage locating structures and improvements on the least sensitive portions of a site and accommodating residential land use while mitigating impacts on environmental quality. An effective site design should define the development envelope and protected areas, including unique topographic and hydrological features, and identify locations that are more suitable for development than others. By identifying the development envelope and protected areas, a site plan can be prepared that minimizes both environmental impacts and construction costs.

#### A-1.1 Tree/Vegetation Removal

# Development should be sited to minimize the removal of natural vegetation, including trees, except where required to maintain defensible space for the residence and nearby structures.

- Trees are important aesthetic and ecological resources that contribute to Marin County's distinctive landscape character. Existing mature trees (including trees over 6 inches in diameter and all native trees that are protected by the County's Native Tree Preservation and Protection Ordinance Chapter 22.27) and natural vegetation should be integrated into the site plan in a manner that takes into account fire safety considerations. Removal of mature or native trees should be avoided whenever possible. This guideline is not meant to obstruct removal of hazardous or unhealthy trees. Please refer to Appendix H: Preservation of Trees for a summary of the native tree ordinance and tree protection and management recommendations.
- The design of new or replacement planting should utilize primarily native, drought tolerant, and fire resistant species that are reflective of the local characteristics of the Marin County landscape. Plant selection should recognize the importance of water conservation, fire resistance, and erosion control. Non-native exotic species should be avoided. Please refer to Appendix M: Plant Selection Guide and Non-native Invasive Plants for a list of native plants that should be used and exotic plants that should be avoided.
- On hillside settings, plantings should also be compatible with the surrounding natural landscape. Please refer to Appendix L: Planting Design for Hillside Residential Development for planting guidelines appropriate for a hillside environment.
- The design of landscaping should also take into account other considerations, including those related to water conservation, fire safety, and topography. For more information, please refer to Appendices I: Marin County Water Conservation Ordinance for Landscaping in Residential Projects, J: Fire Hazard Matrix, Standards for Managing Vegetation, and K: Hillslope Habitat Areas.

#### A-1.2 Drainage

The site design should include features that avoid or minimize increases in storm water runoff. The following includes a summary of key principles to use in developing a site plan that would create opportunities to use a wide variety of simple design techniques to infiltrate significant amounts of runoff, improve aesthetics, and reduce development costs.

• The site design should maximize water permeability by minimizing paved (impervious) areas. This is accomplished both by preserving open space drainageways, and vegetation and by using permeable pavement surfaces where feasible.

- Drainage should be accommodated as an above ground feature. Unlike conveyance storm drain systems that hide water beneath the surface and work independently of surface topography, a drainage system for stormwater quality protection can work with natural land forms and land uses to become a major design element of a site plan. Natural drainage courses should be preserved as close as possible to their natural location and appearance. "Dry Stream" effects (manufactured drainage courses designed to simulate natural drainage courses) which move water over the property are preferred over channeling or underground methods. Storm drainage improvements should create a natural rather than a manufactured appearance.
- Shared driveways and "access" streets should be utilized, where appropriate. Street design has an impact on stormwater quality, both by generating large areas of impervious land coverage, and by collecting pollutants from automobiles. Alternative street standards and concepts allow for reduction of overall impervious land coverage and for more environmentally responsible treatment of roadway runoff.
- Stormwater from building roofs should be collected and conveyed to a comprehensive site drainage system. The storage of rooftop storm water in cisterns for reuse in landscape irrigation and other non-potable uses is also encouraged. Cisterns should be located and sized to preserve natural site features.

For more information, please refer to Appendices E: Drainage Practices, F: Driveway and Parking Design, and "Start at the Source," prepared by the Bay Area Stormwater Management Agencies Association.

#### A-1.3 Streams

#### The site design should acknowledge the importance of streams and riparian systems by maintaining sufficient setbacks from streams and by using best management practices.

Streams and riparian systems provide a variety of important values and functions, including contributing towards the protection and enhancement of wildlife habitat, the health of watersheds, and the aesthetics of the natural landscape. Protection and enhancement of the intrinsic qualities of streams and riparian systems is required through the Countywide Plan's Stream Conservation Area policies and related creek protection ordinances. Additional consideration should be made in the site and building design to protect, enhance, and restore streams and riparian systems that may exist on the property. Please refer to Appendix G: Streams and Riparian Resources for a summary of the Stream Conservation Area policies and Appendix C for the Anadromous Fish Creek Ordinance.

#### A-1.4 Grading

# Changes to the existing natural terrain through grading should be kept to a minimum in order to preserve the inherent characteristics of the site.

Grading should be kept to a minimum and should be performed in a way that respects significant natural features and blends visually with adjacent properties. Building pads should disturb natural contours as little as possible. Grading to create berms adjacent to roadways for privacy purposes should be avoided. Balanced cut and fill volumes are desirable, and alterations to natural land forms should be minimized. Factors to be considered in the development of a grading plan are:

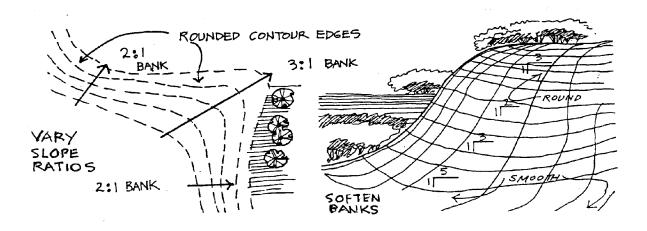
- The natural features of the site;
- Slope and soil characteristics;
- Vegetative cover;
- Access to the site; and
- Orientation and visibility of both the site and the proposed development.

Detailed geotechnical and hydrologic reports may be required prior to the preparation of the grading, drainage and erosion control plans. Building in areas of excessive slope, and soil with poor bearing capacity, high slide potential, and other hazards should be avoided. Careless grading often results in extensive slope cuts with highly visible scars, unstable slopes, increased erosion and a degradation of the visual hillside character. In addition to applying the standards contained in the County's Geotechnical Review requirements, the County will strongly encourage the following design considerations.

- Grading and alterations of natural landforms should be minimized (except that required for foundations).
- Large graded terraces at mid-slope areas for building pads that are disproportionate to the lot area should be avoided. Pads should be of minimum size to accommodate the structure and a reasonable amount of open space. Sloping lot designs, such as split level building terraces, are encouraged to reduce pad size. Graded pads for outdoor recreation areas should not exceed 50% of the footprint of the residence. Development that necessitates grading of pads for tennis courts, swimming pools, and lawns is generally considered to be inappropriate on hillside lots. As much of the lot area as possible should be kept in the natural state of the original slope.
- Terracing should be designed with small incremental steps, avoiding wide step terracing and large areas of flat pads.
- On hillside sites, roads and streets should be located and landscaped to minimize their visibility from the valley floor, other roads, and neighboring properties.

- Grading should be minimized within 20 feet of all perimeter property lines of the development, unless the grading is similar to the existing adjacent slopes or to the planned grading of the adjacent slopes.
- Off-street visitor parking spaces should be located in bays that fit with the natural topography and minimize grading.
- Geotechnical site constraints could be mitigated when needed so long as it can be proven that the measures do not cause negative visual impact to the natural hillside character. However, the following methods for mitigating geologic hazards are not acceptable:
  - > Major modifications that would change the character of an existing landform;
  - Exposure of slopes that cannot be suitably re-vegetated; and
  - Removal of large areas of existing mature vegetation that contribute substantially to the natural character of a site.
- New building sites should be graded such that they appear to emerge from the slope rather than superimposing flat areas onto hillside terrain. Retaining wall structures holding back grade to accommodate a patio or terrace should conform to the natural hillside profile as much as possible.
- Avoid a manufactured appearance by creating smooth contours of varying gradients, preferably with slopes in the range of 2:1 to 5:1. Avoid sharp cuts and fills and long linear slopes that have uniform grade. Slope banks can be softened by contoured grading at the top/toe of the slope. (Please refer to Figure A-1.)

For more information, please refer to Appendix E: Drainage Practices and "Start at the Source," prepared by the Bay Area Stormwater Management Agencies Association.



Variety in slope bank gradients creates a natural appearance more resembling a natural form. Slope banks can be softened by contoured grading at the top and toe of the slope.

#### Figure A-1 Contour Grading Examples

#### A-1.5 Road Access

# Streets, driveways, parking and emergency vehicle access should be aligned to conform, as closely as possible, to existing grades and should minimize the need for grading of slopes.

Streets, driveways, parking and emergency vehicle access should not greatly alter the physical and visual character of the hillside by creating large notches in ridgelines or by defining wide straight alignments on hillsides. Natural landforms may often be retained by avoiding long stretches of straight road and by introducing gentle horizontal and vertical curves in road alignments. Street layout should be aligned to conform to the natural grades as much as possible. Long stretches of straight road should be avoided by introducing gentle horizontal and vertical curves. For more information, please refer to Appendix F: Driveway and Parking Design.

Where street construction is permitted in hillside areas, the extent of visual disruption of the terrain and vegetation disturbance must be minimized by the combined use of retaining structures and regrading to approximate the natural slope. The following techniques should be used:

• Use narrower street widths (acceptable to the County and/or Fire Protection District) when it can be proven that grading impacts will be reduced and it can be shown that the topography, the small number of lots served, and the probable future traffic impacts are such that narrower widths can be justified without compromising safety.

- Reduce the visual and safety impacts of hillside street design by use of terraced retaining walls and landscaping.
- Split roadways increase the amount and appearance of landscaping and the median can be used to handle drainage. Split roadways also allow the integration of natural features such as specimen trees and rock outcroppings into the street design. However, depending on their length, split roadways can impact Fire Department response times. (Please refer to Figure A-2.)

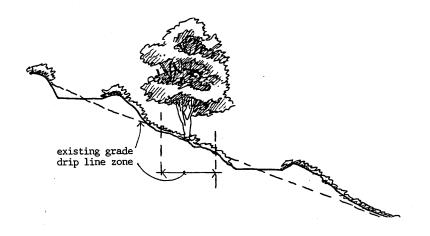
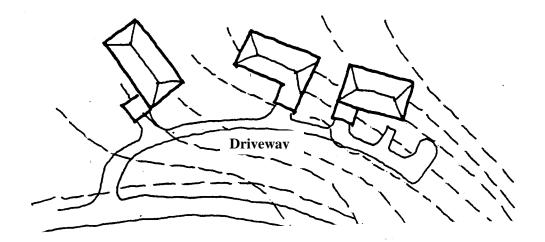


Figure A-2 Split Roadways on Steep Hillsides

- Street layout should be aligned to conform to the natural grades as much as possible. Long stretches of straight road should be avoided by utilizing gentle horizontal and vertical curves.
- Proper sight distances should be maintained; and, with approval by the County, threeway intersections at angles less than 90 degrees should be considered to reduce grading requirements.
- In addition to the required parking spaces, on narrow streets at least two off-street guest parking spaces should be provided. These spaces should be placed within a reasonable distance relative to the dwelling unit which they serve while allowing for preservation of natural topography, trees and other significant vegetation, as well as privacy and noise attenuation for quiet areas (e.g., bedrooms) within neighboring residences. This requirement may be waived when the size or shape of the lot or the need for excessive grading or tree removal makes the requirement infeasible.
- Driveway and parking designs that force vehicles to back out into narrow streets with high traffic volumes are discouraged unless no other feasible alternative design can be accomplished consistent with these guidelines and other applicable regulations.
- Common drives in single-family hillside residential developments should be considered and encouraged if grading is reduced by their use. Common easement

maintenance agreements are required for common driveways. (Please refer to Figure A-3.)

• Roadways for new single-family residential subdivisions should be designed to provide for pedestrian and bicycle access to connect communities, enhance recreational site access, permit safe circulation for school children, pet walkers and senior citizens, and provide fire and earthquake emergency egress where consistent with the County's roadway standards and community character.



**Figure A-3 Shared Driveways** 

### **B.** Building Envelopes and Relationships Between Properties and Streets

One of the challenges posed by new single-family projects in existing residential neighborhoods is to create relationships between properties and streets that maintain adequate space, light, and a sense of openness that complement the existing neighborhood character.



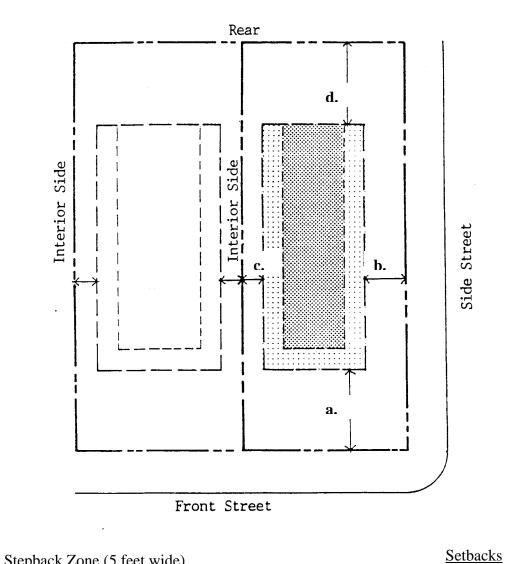
#### **B-1.1 Building Setbacks and Stepbacks**

In order to improve the relationship between properties where sideyard setbacks are typically the only separation between structures and to maintain adequate space, light, and a sense of openness, upper level "stepbacks" should be incorporated into the design of residences. Stepbacks should not result in a stacked box design that does not reflect the surrounding community character.

Stepback requirements on the maximum three-dimensional building envelope are intended to avoid excessive building bulk viewed from adjacent lots and front and street side elevations. The maximum building envelope is defined as the three-dimensional volume contained within the permitted height limit and applicable front, side and rear setback lines prescribed by the zoning district regulations. For properties without prescribed setbacks, such as those governed by the planned district zoning regulations, building stepbacks should be used in order to maintain adequate space, light, and a sense of openness between properties and from the property to the adjacent roadway.

- A building stepback should be incorporated on all walls facing the front, street side and interior side property lines, and rear property lines on through (double frontage) lots. The Stepback Zone consists of all areas within 5 feet of the building envelope limit facing the appropriate property lines. (Please refer to Figure B-1.)
- 2) Within the Stepback Zone, a 20-foot height limit should be observed, measured from existing or finished grade, whichever is lower. To allow for design flexibility, an encroachment into the Stepback Zone is permitted along 25% of the building length along the front, street side, and interior side property lines. (Please refer to Figure B-2.)

In each of the cases described above, a partial-height building element, such as a fireplace or a bay window, is permitted as an architectural encroachment into the Stepback Zone as long as floor area is not added.





Stepback Zone (5 feet wide)

Full Height

(Note: Rear stepback zone applies to through lots.)

#### Figure B-1 Setbacks with Stepback Zone

Front

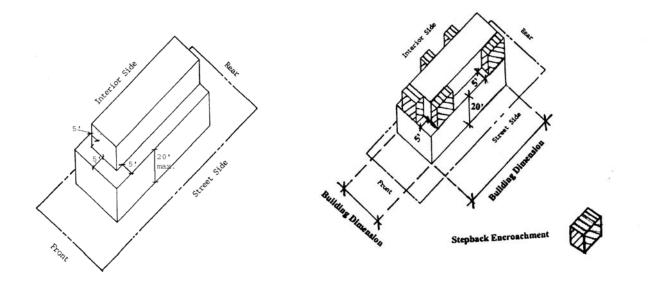
Street Side

Interior Side

a.

b.

c. d. Rear Figure B-2 illustrates in three-dimensional form a basic example of how the Stepback Zone results in a second story element that steps away from the perimeter of the first story to reduce bulk and massing. Encroachments into the Stepback Zone are allowed for up to 25% of the building length. Figure B-3 provides an example of second floor stepbacks along the front and side elevations. Please refer to Appendix O: Case Studies in Building Stepbacks.



**Figure B-2 Stepback Zone and Permitted Encroachments into Stepbacks** 





Single-family Residential Design Guidelines

### C. Neighborhood Compatibility

One of the objectives of Design Review is to promote single-family residential development projects (including additions and alterations) that are compatible with the existing neighborhood character. The design of proposed projects should consider the composition and integration of the outdoor spaces and the buildings that make up the physical neighborhood. The relationships between properties, including the existing setbacks and spaces between buildings, the heights, lengths and materials of walls, roof forms, fences and plantings should be considered in the design of new projects. Generally speaking, the floor area of the proposed development should not substantially exceed the median home size in the surrounding neighborhood, taking into consideration site-specific factors, such as lot size, bulk and mass, topography, vegetation, and the visibility of the proposed development.

The relationships between residences on adjacent properties and between houses and the public street or area can be complex, and need to respect the privacy, views, light, solar access and noise effects on neighboring properties, to name a few. Design Review promotes consistency and best planning practices in balancing issues of privacy and compatibility, as related to the design of remodeled and new single-family residential development projects. The successful application of these guidelines requires consistent policy interpretation and flexible outcomes determined on a case-by-case basis.



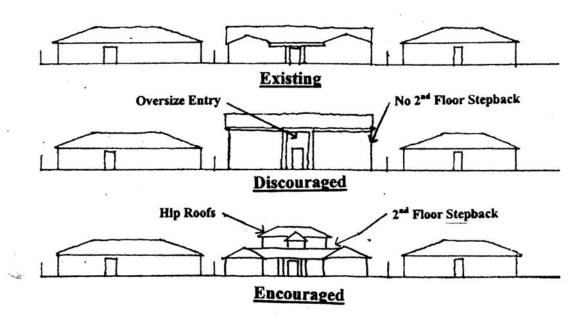
#### C-1.1 Street Setbacks

# New development and remodel/additions should not be disharmonious with the existing street setback patterns.

The relationships of building size, scale, image and location related to the public street are important issues in the design review of new single-family residential development projects. In residential neighborhoods with conventional, uniform lot sizes and frontages, the pattern of buildings consistently set back from both sides of the public street, and the landscaped street space, combine to create an outdoor "room" related to the neighborhood.

Figure C-1 illustrates the juxtaposition between various one and two story buildings and basic design techniques to reduce bulk and massing of second story elements under the following conditions:

- Relationships of size, height and scale of building components
- Two-story home adjacent to one-story homes



**Figure C-1 Relationship Between Buildings** 

#### C-1.2 Hillside Street Stepbacks

On hillside properties with average slopes of 25% or greater, varied and staggered front building setbacks are encouraged. This is consistent with the natural hillside character and will reduce the monotony of repetitive setbacks. The amount of setback variation will depend upon lot size. Residential development at a density of 2 dwellings per acre or less should vary adjacent setbacks by at least 10 feet; lots one acre or larger should vary adjacent setbacks by larger distances if feasible.

Single-family Residential Design Guidelines

#### C-1.3 Hillside Interior Setbacks

# All new hillside residential development should be located so as to minimize interference with privacy between properties and views from adjacent residences.

On hillside properties, the walls and roof of the second floor should be set back from the walls and roof of the first floor to increase the space between buildings at the upper levels so as to minimize interference with privacy and views from adjacent properties. The stepbacks should comply with the Stepback Zone requirements of Guideline B-1.1. Please refer to Figure C-2 for an illustration of this principle.

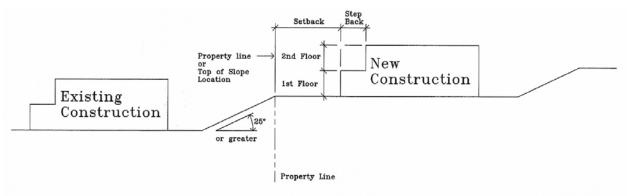


Figure C-2 Appropriate Hillside Building Stepback

#### C-1.4 Garages

# The location and orientation of the garage in smaller lot neighborhoods should be designed to minimize its visual presence as seen from the adjoining street.

By recessing and/or turning the garages away from the street front, groups of properties create a more continuous pedestrian oriented street frontage. Consideration should also be made to locate parking garages to the rear of the property in neighborhoods where pedestrian street frontages are desirable. The garage should be detached from the dwelling, where feasible. Please refer to Figures C-3 and C-4.

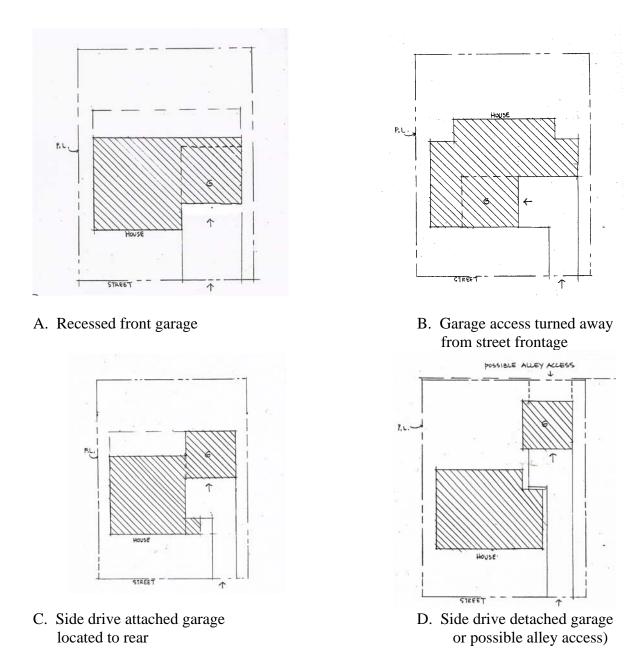


Figure C-3 Appropriate Location of Garages and Parking Access



Figure C-4 Detached Garage Example

#### C-1.5 Parking Areas

On hillside properties with average slopes of 25% or greater, parking spaces should be placed within a reasonable distance from the dwelling unit which they serve while allowing for preservation of natural topography, trees and other significant vegetation, as well as privacy and noise attenuation for neighboring residences.

This requirement may be waived when the size or shape of the lot or the need for excessive grading or tree removal makes the requirement infeasible. Driveway and parking designs that force vehicles to back out into narrow streets with high traffic volumes are discouraged unless no other feasible alternative design can be accomplished consistent with these guidelines and other applicable regulations.

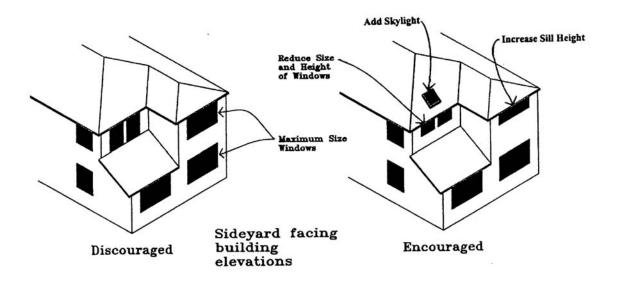
#### C-1.6 Window Location and Size

Upper level indoor and outdoor spaces should be designed so that windows, outdoor deck areas, balconies, doors, and exterior lighting do not impair privacy on adjacent properties.

Suggestions illustrated in Figure C-5 include:

- 1) Windows facing adjacent properties can be located or designed (e.g. use of a clerestory) to avoid direct alignment with windows on adjacent properties.
- 2) Where proposals include second floor facing side windows, window sills can be located above sight lines while allowing daylight at head height.
- 3) Use skylights, where appropriate, where they do not create off-site nighttime lighting impacts, to increase daylighting of bathrooms located along sideyards.
- 4) Use landscape and planting techniques to visually screen adjacent properties. However, an over-reliance on landscaping for visual or privacy screening should be

avoided because introduced plantings may take considerable time to mature and may not provide long-term screening due to poor health or removal. The site design and building design should therefore be conducive to preserving views and privacy.



**Figure C-5 Privacy Considerations for Windows** 

C-1.7 Fences and Retaining Walls

The heights of fences and retaining walls should be minimized to avoid creating continuous fenced or walled property frontages that create a "canyon effect" along residential streets. Open fence designs are encouraged on public streets to emphasize opportunity for views from the public environment. Large retaining walls in a uniform plane should be avoided by breaking retaining walls into smaller components and landscaped terraces.

Ways of complying with the above guideline include:

• Fences should be offset from adjacent retaining walls to minimize the combined massing of the two structures as viewed from the street frontage (or within view of a neighboring yard area). Landscaping should be planted within the offset area. Where less than 2 feet of separation exists between the fence and wall, the overall height of both structures should not exceed 6 feet. (Please refer to Figure C-6.)

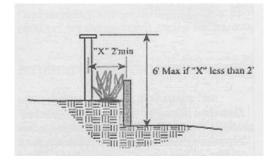


Figure C-6 Offsetting Fencing and Retaining Walls

- Retaining walls should be limited to 4 feet in height where the exposed side of the wall faces the street or otherwise faces out from the center of the property. Retaining wall heights should be limited to 6 feet when facing toward the center of the property. Please refer to Figure C-7.
- Fences and walls that face a public street should be provided with a fully-landscaped buffer of at least 3 feet deep on the street-facing side of the fence or wall. Solid fences and walls over 4 feet in height that face public streets are discouraged. Please refer to Figure C-8 for an example of inappropriate retaining wall design.
- Terraced retaining structures should not exceed 4 feet in height and should be separated by a landscaped area of at least 3 feet.

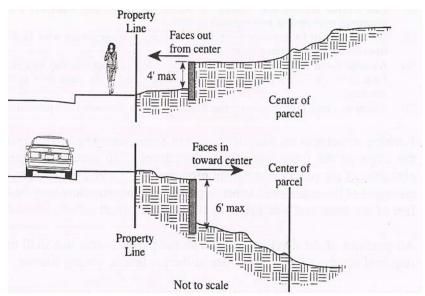


Figure C-7 Appropriate Retaining Wall Heights



Figure C-8 Inappropriate Retaining Wall Design

- Continuous rear yard fences and walls across the tops of slopes should be coordinated in design and use of materials.
- Exceptions to the criteria above may be made in cases where the appearance of a continuous fenced or walled property frontage is avoided or minimized through the use of staggered wall/fence designs, landscape visual screening, and/or natural, earth-tone materials and colors. Other factors that may be considered include compatibility with historic or community character factors or where there are no feasible alternative designs or locations that could be utilized without creating environmental impacts.
- Fencing that allows for wildlife movement between properties is encouraged where appropriate.

#### C-1.8 Privacy

In residential neighborhoods with conventional, uniform lot sizes and frontages, plant materials and landscape design may be used as privacy screening and to increase noise buffering. However, an over-reliance on landscaping for visual or privacy screening should be avoided.

#### C-1.9 Mechanical Equipment (Visual)

# Mechanical equipment should be screened from public view. Enclosures should be designed to be integral with the architecture and landscape character of the other parts of the property.

Mechanical equipment, including, but not limited to, antennae and satellite dishes, should not be highly visible from beyond the boundaries of the site and should be considered components to be designed integral to the primary residence when located in the public view. Visual prominence can be reduced by adequately screening or architecturally integrating the equipment with a structure. Please refer to Figure C-9. Similarly, solar equipment should follow the roofline and/or be designed to be unobtrusive while still retaining needed solar access. Overhangs, roof eaves, decks, foundations and all other elements projecting from any downslope wall should be designed so that there is no exposure of plumbing, heating, ventilating and air conditioning equipment or conduits, and should be of an architecturally-finished appearance.

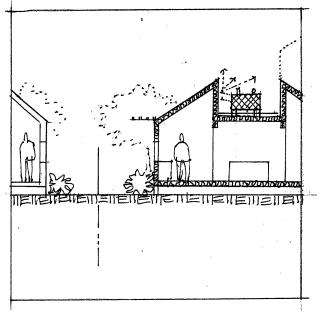


Figure C-9 Using the Roof as Equipment Screening

#### C-1.10 Mechanical Equipment (Noise)

#### Air conditioning equipment, swimming pool equipment and other facilities that may generate noise should be located a sufficient distance from property neighboring lines to avoid or minimize noise intrusion.

These facilities are also subject to required zoning setback standards, where applicable, and may require greater setbacks, enclosures, or placement within existing or proposed buildings (e.g., understory area) through conditions of approval for discretionary projects to attenuate noise that exceeds guidelines or standards adopted by the County. Please refer to Figure C-10.

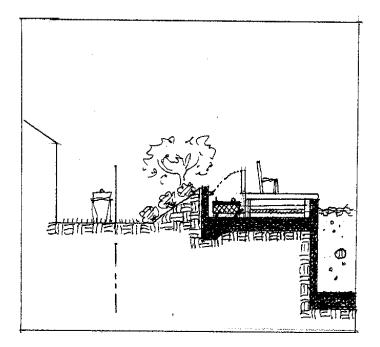


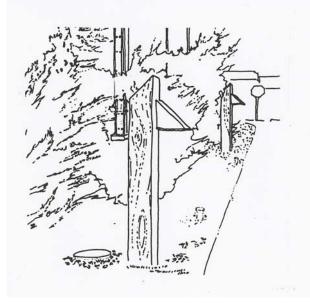
Figure C-10 Pool Equipment Enclosure

#### **C-1.11 Exterior Lighting**

Site lighting fixtures should be selected or designed to complement the architectural design of the project. Exterior light fixtures should be mounted at low elevations to preserve the nightscape and natural setting of the surrounding area, especially in rural and hillside areas, and to prevent glare that may be visible from off-site locations and adjacent residences.

Site lighting in hillside residential development should comply with the following additional requirements.

- Site lighting that is visible from adjacent properties, public roadways, and from other neighborhoods must be indirect or incorporate full shield cut-offs.
- Overhead lighting should be placed at the lowest elevation necessary for safety purposes. The placement of lighting in residential parking areas should avoid interference with bedroom windows. Overhead fixtures used for pedestrian areas should provide shielded downlighting and be limited to heights below 8 feet. Lower mounting heights are encouraged.
- Along walkways, low level lighting in the form of bollards or fixtures mounted on short posts is encouraged. Please refer to Figure C-11. Shatterproof coverings are recommended. Posts should be located to avoid hazards for pedestrians or vehicles.



**Figure C-11 Bollard Lighting Example** 

• Exterior flood lighting for security and safety should be located and shielded so as not to shine on adjacent properties. Whenever possible, such lighting should be set on a timer and/or motion detector. Decorative lighting to highlight a structure or landscape feature (e.g. tree, site retaining wall, etc.) could interfere with the hillside silhouette and nightscape and is discouraged.