

HILLSIDE DESIGN GUIDELINES

OVERVIEW

The policies of the Los Angeles County General Plan ("General Plan"), and area and community plans where applicable, seek to preserve significant natural features in hillside areas. These Hillside Design Guidelines ("Guidelines") are intended to implement those policies by ensuring that hillside development projects use sensitive and creative engineering, architectural, and landscaping site design techniques. The Guidelines also help ensure that hillside development projects are designed in a manner that allows the project to meet the findings of the Hillside Management Areas Ordinance ("Ordinance"). To accomplish this goal, these Guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects.

Some design techniques may be more appropriate or feasible than others, depending on the type of project, location, size, complexity, site constraints, and other design techniques incorporated into the project. The design techniques most appropriate for a project to achieve the purpose of the Ordinance shall be determined by the applicant and the Director.

The Guidelines are encouraged but optional for all other hillside projects not subject to the Ordinance. Hillside Management Areas ("HMAs") have 25% or greater natural slopes; however, development on 24% or "lesser" slopes can have negative impacts on hillside terrain that could be minimized by following these Guidelines.

The Guidelines are divided into five major design categories containing a variety of sensitive hillside design measures. The five major categories are:

- Site Planning
- Grading and Facilities
- Road Circulation
- Building Design
- Landscaping

For substantial compliance with the Ordinance, projects must use the design measures contained in the Guidelines that reasonably can be implemented in the project design. The project applicant should consult and coordinate with County staff to determine the most appropriate design measures. While the design measures are not individually weighted in the Guidelines, more weight may be given to a particular design measure based on the location, context, size and/or complexity of the project. No individual design measure should be used as a sole means to deny or recommend denial of a project; rather, all characteristics of a project's design "as a whole" should be taken into consideration when making a final determination. The Hearing Officer, Regional Planning Commission or Board of Supervisors is the final authority in determining whether required Ordinance findings can be made for a project.

Due to the variety, size, geology, hydrology, and complexity of development projects, there is no set number of design measures required in a project to ensure that it, as stated in subsection B of Section 22.104.010 of Title 22, preserves and enhances the physical integrity and scenic values of HMAs, provides open space, and is compatible with and enhances community character. Staff and project applicants are advised that **four design measures per category** (Site Planning, Grading and Facilities, Road Circulation, Building Design, and Landscaping) is typically the appropriate number of design measures to be included in a project to allow the required Ordinance findings to be made for that project.

Staff and applicants are also advised that these numbers are general recommendations, and not absolute requirements. Because projects are tailored to the individual site requirements and conditions, it is possible that more or less measures may be appropriate. When considering whether to support a request for a lower number of measures from an applicant, factors that staff may consider include density, the size of the project, or whether the project is able to meet several partial credit design measures.

In situations where it is unclear whether a design measure is being fully utilized, County staff will use its recommendation for whole or partial design measure "credit" towards satisfying the Ordinance findings. Half-credit may be given for a design measure if the project design does not fully meet the design measure but partially satisfies it to the satisfaction of the County. Staff will also work with project applicants to determine which design measures can be implemented as project conditions of approval.

OTHER STANDARDS

In addition to meeting Ordinance findings, all projects are also subject to applicable Plans, County policies, the Zoning Code and Subdivision Ordinance, Healthy Design standards, and the California Environmental Quality Act. These standards or policies could influence which design measures to use within a project.

FACTORS AFFECTING RESIDENTIAL DENSITY

Sensitive hillside design techniques can be used to achieve a better project design while still maintaining a desired number of dwelling units. The General Plan land use designation ("plan category") establishes the appropriate residential density range for a project, including the density maximum. However, there are a number of other factors that can affect the project's density, such as:

- Land division standards (minimum lot size, lot width, street frontage and access)
- Zoning designation (minimum lot size/lot area per dwelling unit)
- Zoning standards (building setbacks, maximum lot coverage)
- Biological constraints (such as woodlands and wildlife habitats and corridors)
- Natural environmental hazards (such as geologic, seismic, fire, flood)
- Open space and parking requirements
- Public easements and dedications (such as for utilities)
- Community compatibility and neighbor concerns

LAND DIVISIONS

Past development patterns within the unincorporated County suggest that the largest hillside projects involve land divisions. Land divisions often have large amounts of grading along with the creation of new infrastructure and landscaping. While it should be expected that more design measures will be applicable to land divisions, quantity should not be confused with quality. Smaller land divisions and non-land division projects should be evaluated not only by the number of design measures utilized but also by how effectively they are used to achieve a sensitive hillside design.

SENSITIVE HILLSIDE DESIGN MEASURES CHECKLIST

Use this checklist to track which of the Sensitive Hillside Design Measures are included in a project.

Use the “Notes” column to provide additional information where needed, such as where or how a design measure is shown on the plans; whether a design measure is only partially satisfied; or whether a design measure will be incorporated into the conditions of approval.

<u>Date:</u> <u>Project Number:</u> <u>Planner:</u>

1. Site Planning
Conserve land area and form, link open spaces, and promote a more attractive pattern of development that complements the hillside terrain.

Design Measure	Shown on plans	Does not apply	Notes
1.1. Locate 50% or more of the project’s buildings and developable lots within 500 feet (ft.) of existing sewer, water and roadway infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	
1.2. Locate at least 50% of the development footprint on the flattest portions of the site ¹ (i.e., those areas having slopes of less than 25%) when that area does not contain rare, sensitive, or State or federally listed threatened or endangered species.	<input type="checkbox"/>	<input type="checkbox"/>	
1.3. Utilize all previously graded or disturbed areas on the site for new development to the greatest extent possible, before developing new areas, so that new development within undisturbed areas is reduced.	<input type="checkbox"/>	<input type="checkbox"/>	
1.4. For new land divisions, contain at least 75% of developable lots within blocks that have a perimeter of ¼ mile (1,320 ft.) or less, measured from the roadway centerline. <i>(Note: The purpose of this design measure is to avoid unattractive “superblocks” of development on the hillside and instead use smaller block sizes that are more distinguishable from each other and can better fit in with the natural topography.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
1.5. For new land divisions, where lot clustering is allowed and compatible with community character, reduce all single-family lot sizes to 15,000 square feet (sf.) or less.	<input type="checkbox"/>	<input type="checkbox"/>	

¹ “Site” referred to in the Design Measures means the “project site” or “subject property.”

1.6. For new land divisions, utilize a variety of small, medium and large lot sizes (such as 5,000, 10,000 and 20,000 sf.) in such a manner that it will produce different building layouts and sizes.	<input type="checkbox"/>	<input type="checkbox"/>	
1.7. Throughout the project site, differentiate elevations so that elevations between adjacent pads, between adjacent blocks, or between adjacent streets, range from 1 to 30 ft.	<input type="checkbox"/>	<input type="checkbox"/>	
1.8. Place the narrow side of the lot (or building pad) such that it allows the building façade to face the roadway.	<input type="checkbox"/>	<input type="checkbox"/>	
1.9. Utilize terraced building pads in select areas within the site to preserve slopes that exceed 50%.	<input type="checkbox"/>	<input type="checkbox"/>	
1.10. Preserve the most prominent and unique slopes, hilltops and ridgelines ² on the site for recreational uses within dedicated (or common) open space areas.	<input type="checkbox"/>	<input type="checkbox"/>	
1.11. Exceed the minimum Ordinance open space acreage requirements by 10% or more.	<input type="checkbox"/>	<input type="checkbox"/>	
1.12. Preserve contiguous undisturbed open space throughout the site, utilizing segments of land that are at least 150 ft. wide.	<input type="checkbox"/>	<input type="checkbox"/>	
1.13. Utilize at least 25% of the overall project's disturbed (improved) open space for recreational purposes.	<input type="checkbox"/>	<input type="checkbox"/>	
1.14. Locate and design improved open space as a buffer (recommended at least 50 ft. wide) between undisturbed open space and development.	<input type="checkbox"/>	<input type="checkbox"/>	
1.15. Create scenic vista points at prominent locations such as hilltops and ridgelines, providing amenities ³ at the points and making them accessible to the public. When provided, this shall count as improved open space.	<input type="checkbox"/>	<input type="checkbox"/>	
1.16. Provide private (connector) trails or pedestrian paseos that link together all of the project's open space areas (1 acre or larger) and connect to any onsite or offsite public trails.	<input type="checkbox"/>	<input type="checkbox"/>	
1.17. For new land division blocks of development that exceed 800 ft. between intersections, design mid-block through-paths such as trails or pedestrian paseos, that connect to intervening streets or open space areas, and make the paths accessible to the public.	<input type="checkbox"/>	<input type="checkbox"/>	
1.18. Use any other site planning techniques not listed in this section that either through innovation or in consideration of specific site constraints or other specific project factors, are tailored to are tailored to allow the project to meet the findings required by this Ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	
TOTAL			

² When ridgelines are mapped as "significant ridgelines" by the County, the stricter regulations applicable to those ridgelines shall apply and staff shall determine whether it is appropriate to give credit for this Design Measure.

³ Such as decks, seating arrangements, overhead cover (trellis or gazebo), landscaping and shade trees, and information signs for landmarks or points of interest.

2. Grading and Facilities

Avoid mass landform alteration, preserve the physical shape of the hillside, and maintain pleasant views.

Design Measure	Shown on plans	Does not apply	Notes
2.1. For projects with more than 100,000 cubic yards of onsite earthwork, avoid any mass cut and fill grading that would result a 25 ft. or greater in elevation change from the existing natural grade to the finished manufactured grade at any one point on the site.	<input type="checkbox"/>	<input type="checkbox"/>	
2.2. Use contoured grading lines that match or closely match the existing topography, generally avoiding lines that trace 45 to 90 degrees against the natural contour.	<input type="checkbox"/>	<input type="checkbox"/>	
2.3. Utilize undulating banks for graded slopes in order to maintain the natural pattern of the topography to the greatest extent feasible.	<input type="checkbox"/>	<input type="checkbox"/>	
2.4. Design the project's longer graded horizontal slope surfaces and slope increments (typically 300 or more ft. in length) to be variable in terms of height and spacing to replicate natural topographical patterns, taking into account hydrology design and any sewer, water and storm drain infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	
2.5. Locate water tanks and other similar types of structures that are 20 ft. tall or taller so that their highest point is at least 50 ft. below the crest of the highest hilltop or ridgeline, on or off the site, that is located within 500 ft. of the water tank or similar structure.	<input type="checkbox"/>	<input type="checkbox"/>	
2.6. Locate visually intrusive structures (such as water tanks) so that they are hidden from public views, placing them behind hills, buildings, landscaping, existing trees or other more appropriate and attractive screening objects.	<input type="checkbox"/>	<input type="checkbox"/>	
2.7. Avoid berms and block walls that obstruct views from or to buildings. Instead, locate and design the buildings in accordance with the other site planning, road circulation, building and landscaping design measures contained in these Guidelines.	<input type="checkbox"/>	<input type="checkbox"/>	
2.8. Design drainage facilities as multi-purpose site features ⁴ that are attractively landscaped, conserve water, improve water quality, and provide opportunity for recreational activity. <i>(Note: These features may be counted towards required open space acreage, as improved open space, if designed to the County's satisfaction. Such features should be located in areas already designated for improvement such as park sites, roadsides, or previously-graded flat areas.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
2.9. Build retaining walls to be less than six ft. in exposed height, and terrace the walls where appropriate and in a manner that does not substantially increase visual impacts.	<input type="checkbox"/>	<input type="checkbox"/>	

⁴ Subject to the approval of Los Angeles County Department of Public Works.

2.10. Use earth-tone colors and materials ⁵ for exposed hardscape surfaces such as block walls, retaining walls, drainage terraces and storm gutters.	<input type="checkbox"/>	<input type="checkbox"/>	
2.11. Use attractive designs and materials that are compatible with, or that enhance, community character for any walls or fencing used to enclose public facilities (such as debris and retention basins), especially when such facilities are in highly-visible locations and/or are designed as “multi-purpose” site features. <i>(Note: Safety and security shall be maintained for the facilities when using a more attractive wall or fence design.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12. Use any other grading and public facility design techniques not listed in this section that either through innovation or in consideration of specific site constraints or other specific project factors, are tailored to the site and allow it to meet the findings required by this Ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	
TOTAL			

3. Road Circulation			
<i>Preserve the physical shape of the hillside, maintain good connectivity, and provide scenic roadway views.</i>			
Design Measure	Shown on plans	Does not apply	Notes
3.1. Provide at least two points of paved roadway access ⁶ to a County highway (major or secondary) for any project (or portion of development) greater than 50 dwelling units and 10 acres in size. <i>(Note: This practice should only be considered when the second road connection will not require a substantial amount of additional grading; special consideration may be given when connecting to an adjacent community or providing access to community services such as schools and parks.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2. Locate and design new roadways to follow the existing natural slope contours, avoiding mass landform alteration and excessive grading. ⁷	<input type="checkbox"/>	<input type="checkbox"/>	
3.3. Utilize private drives instead of public streets on 50% or more of the project road circulation system to allow slightly higher gradients (up to 15%) that result in less grading and better conformance to natural slope contours, taking into account hydrology design and any sewer, water and storm drain infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	

⁵ Subject to the approval of Los Angeles County Department of Regional Planning.

⁶ May be a private roadway or fire lane but shall be un-gated, accessible by the public, and of sufficient width to meet Los Angeles County Fire Department requirements.

⁷ Subject to the sight distance, signing, striping and marking requirements of Los Angeles County Department of Public Works.

3.4. Use undulating patterns and varying grades ⁸ for roadway segments exceeding 1,000 ft. in length.	<input type="checkbox"/>	<input type="checkbox"/>	
3.5. Connect roadways to form blocks wherever feasible (2,000 sf. or less block perimeter), such that at least 75% of the development footprint (to include public facilities) is contained within blocks. (Note: The purpose of this is to provide good access and connectivity for safety reasons, and to use roadways to buffer development from natural vegetated areas.)	<input type="checkbox"/>	<input type="checkbox"/>	
3.6. Use culs-de-sac in limited instances, such as where road connections would require grading into 50% or greater slopes or grading into 25% or greater slopes for a distance of more than 500 ft.	<input type="checkbox"/>	<input type="checkbox"/>	
3.7. Provide unpaved trail or paved pedestrian path thru-connections (e.g. pedestrian paseos) for all culs-de-sac. (Note: Fee-dedicated strips are recommended instead of easements on private lots.)	<input type="checkbox"/>	<input type="checkbox"/>	
3.8. Utilize "edge" (single-loaded) roads along at least 50% of the development perimeter, in areas with steep hillside terrain, and to buffer development from undisturbed open space.	<input type="checkbox"/>	<input type="checkbox"/>	
3.9. Place all new roadways and paved driveways at least 100 ft. below the crest of the tallest hilltop or ridgeline located onsite, or offsite within 500 ft. of the project boundary.	<input type="checkbox"/>	<input type="checkbox"/>	
3.10. Design "split" roadways or landscaped medians to preserve unique or important natural features (such as oak trees or rock outcroppings).	<input type="checkbox"/>	<input type="checkbox"/>	
3.11. Use bridge design techniques that are attractive, maximize the preservation of natural watercourses, and allow easy wildlife migration beneath the bridge (minimum 6 ft. of vertical and horizontal clearance recommended)	<input type="checkbox"/>	<input type="checkbox"/>	
3.12. Use private drives instead of public roadways when it will result in narrower roadway widths that create less grading. (Note: Private drives should conform to the Los Angeles County Private Drives and Traffic Calming Manual, and should not eliminate sidewalks or reduce sidewalk connections throughout the development.)	<input type="checkbox"/>	<input type="checkbox"/>	
3.13. Use any other roadway circulation design techniques not listed in this section that either through innovation or in consideration of specific site constraints or other specific project factors, are tailored to the site and allow it to meet the findings required by this Ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	
TOTAL			

⁸ Subject to the maximum allowed street grade requirements of Los Angeles County Department of Public Works.

4. Building Design

Promote more attractive views through building siting and orientation, and use of building materials and colors that complement natural hillside features.

Design Measure	Shown on plans	Does not apply	Notes
4.1. Place structures and/or limit their height so that their rooflines are equal to or below the elevation of the roadway grade of the development above.	<input type="checkbox"/>	<input type="checkbox"/>	
4.2. Utilize terraced (split-level) or “cantilevered” building designs wherever feasible on 25% or greater slopes. (Note: Split-level homes should have a second floor exterior that is visibly set-back from the first floor exterior so that a terraced profile can be seen from the public view.)	<input type="checkbox"/>	<input type="checkbox"/>	
4.3. Use a variety of house, garage and other building placements that better responds to the hillside terrain and created a more interesting and attractive streetscape.	<input type="checkbox"/>	<input type="checkbox"/>	
4.4. Limit building heights to 2 stories (or 25 ft.) when sited on 25% or greater slopes or when the building pad elevation is located less than 50 ft. below the crest of the nearest hilltop or ridgeline located within a linear distance of 500 ft.	<input type="checkbox"/>	<input type="checkbox"/>	
4.5. Use a wider variety of architectural treatments and materials ⁹ for the facades and exteriors of buildings that are located in highly-visible areas on the site (such as main entryways, higher elevations, and isolated lots or building pads that can be seen from public view).	<input type="checkbox"/>	<input type="checkbox"/>	
4.6. Use pitched roofs (at least 1.5:1) and shingles for new residences. ¹⁰	<input type="checkbox"/>	<input type="checkbox"/>	
4.7. Utilize architectural design techniques to screen rooftop mechanical equipment from public view.	<input type="checkbox"/>	<input type="checkbox"/>	
4.8. Design building exteriors with stonework and/or woodwork that matches rock and tree varieties found in visible locations on the site or in the surrounding community within a distance of one mile. (Note: Materials shall not be sourced from sensitive or scarce local resources such as oak trees, unless the project design is already removing these materials on site due to other project constraints and reusing them).	<input type="checkbox"/>	<input type="checkbox"/>	
4.9. For business signs, use wood construction materials and painted lettering/logos, avoiding the use of metal and plastic, and with 18 sf. or less total sign surface area (10 sf. for projecting signs) per business establishment.	<input type="checkbox"/>	<input type="checkbox"/>	
4.10. Design monument signs to be constructed with wood, stone, brick and/or decorative concrete, and to be no more than 6 ft. in height. (Note: The placement of all monument signs shall accommodate an adequate line of sight to the adjacent roadway.)	<input type="checkbox"/>	<input type="checkbox"/>	

⁹ Such as metal, stone, wood, brick, plaster, and concrete.

¹⁰ Subject to approval by the Los Angeles County Fire Department.

4.11. Limit all signs so that they project upward no higher than the roofline of the building (or nearest adjacent building), and do not disrupt sightlines to the horizon.	<input type="checkbox"/>	<input type="checkbox"/>	
4.12. Illuminate signs from the exterior, with downward-projecting, hooded light fixtures that minimize light trespass.	<input type="checkbox"/>	<input type="checkbox"/>	
4.13. Use any other building design techniques not listed in this section that either through innovation or in consideration of specific site constraints or other specific project factors, are tailored to the site and allow it to meet the findings required by this Ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	
TOTAL			

5. Landscaping			
<i>Preserve existing vegetation, conserve water and provide more attractive and shaded settings within the developed areas of the hillside project.</i>			
Design Measure	Shown on plans	Does not apply	Notes
5.1. Retain and incorporate 50% or more of existing on-site trees and woodlands (particularly native and drought-tolerant species, and oak woodlands) into the overall project landscaping plan ¹¹ .	<input type="checkbox"/>	<input type="checkbox"/>	
5.2. Avoid all healthy ¹² oak tree encroachments and removals through the sensitive location and design of development.	<input type="checkbox"/>	<input type="checkbox"/>	
5.3. Landscape all graded slopes and improved open spaces in an attractive manner that accomplishes at least two or more of the following beyond a State or County-required minimum (whichever is more restrictive): a) restores habitat; b) conserves water or improves water quality; c) provides shade for pedestrians and bicyclists; d) enhances slope stability (must landscape all slopes ≥ 5 ft. high); e) increases fire protection; and f) provides recreational opportunities.	<input type="checkbox"/>	<input type="checkbox"/>	
5.4. Utilize native and drought-tolerant trees, shrubs and ground cover over all exposed graded areas.	<input type="checkbox"/>	<input type="checkbox"/>	
5.5. Landscape at least 50% of all graded slopes and improved open spaces at a minimum ratio of one new shrub per 100 sf. of total graded slopes and improved open space area, and one new tree per 800 sf. of total graded slopes and improved open space area.	<input type="checkbox"/>	<input type="checkbox"/>	
5.6. Vary the height, placement and color of appropriate landscaping materials throughout the site.	<input type="checkbox"/>	<input type="checkbox"/>	

¹¹ May require consultation with the County biologist prior to conceptual landscaping plan approval.

¹² As determined by a qualified arborist. Only applies to oaks that are the minimum ordinance size or larger.

5.7. Use a wide variety of local and non-invasive plant species within the project's improved open space areas, matching or exceeding the variety found on-site and listed in the project's plant surveys and biota reports.	<input type="checkbox"/>	<input type="checkbox"/>	
5.8. Plant new native and drought-tolerant trees and shrubs of a sufficient interval, size and height to screen hardscape surfaces and unadorned features such as block walls; infrastructure; and exposed and prominently located building facades.	<input type="checkbox"/>	<input type="checkbox"/>	
5.9. Use plant materials and irrigation systems that, combined, conserve water 20% or more beyond State and County requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
5.10. Reapply the graded topsoil to manufactured slopes and improved open space areas.	<input type="checkbox"/>	<input type="checkbox"/>	
5.11. Use any other landscaping design techniques not listed in this section that either through innovation or in consideration of specific site constraints or other specific project factors, are tailored to the site and allow it to meet the findings required by this Ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	
TOTAL			