2013

2013 DRAFT FOR PUBLIC REVIEW

LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING

320 WEST TEMPLE STREET
LOS ANGELES, CA 90012

A BEST PRACTICES MANUAL FOR SENSITIVE DESIGN IN HILLSIDE MANAGEMENT AREAS

Contents

PURPOSE

The policies of the Los Angeles Countywide General Plan (General Plan) seek to preserve significant natural features in hillside areas through the use of sensitive and creative design techniques. The Hillside Design Guidelines (Guidelines) are intended to assist those who are preparing plans for development projects within hillside areas to be designed in a manner that is consistent with the goals and policies of the General Plan, and the intent and purpose of the Hillside Management Areas Ordinance (Ordinance). To accomplish this, the Guidelines include a wide variety of over *60 specific and measurable design techniques* that can be used in different hillside contexts to satisfy the policies of the General Plan and the findings of the Ordinance. Some design techniques may be more appropriate or feasible than others, depending on the location, surrounding context, the size and complexity of the project, and site constraints. That stated, the Guidelines have been crafted in a manner so that at least some techniques can be used *for every project* in order to improve its design, and, if applicable, satisfy the County's policies and Ordinance requirements for development within hillside areas. The Guidelines is a living document that will be periodically reviewed and updated.

Comment [A1]: Who has authority to make changes to this document? What is the procedure? As a living document, there should still be formal review and public process for any changes made. What are governance provisions?

GOALS

The general goal of the Guidelines is *to preserve significant natural features located in Hillside Management Areas (HMAs)*. Significant natural features mainly include steep hillside terrain (hilltops and ridges), unique geologic features (such as rock outcroppings), and natural vegetation. These three elements are seen as crucial for maintaining the overall integrity and character of the hillside. The specific goals of the Guidelines are the same as that of the Ordinance, which are to:

1. *Preserve the physical integrity and scenic value of HMAs;*
2. *Provide open space; and*
3. *Enhance community character.*

Comment [A2]: to the extent feasible given the entire site constraints and requirements by other agencies and jurisdictions

These goals can generally be accomplished by avoiding development in HMAs to the extent feasible; locating development in the portions of the HMAs with the fewest natural constraints; restoring disturbed areas as Natural Open Space; and using sensitive design techniques when developing within the HMAs. ~~The HMA Ordinance includes provisions to restore disturbed areas to a natural state – rehabilitation and restoration of graded areas should be listed as a means of achieving the overall goal.~~

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APPLICABILITY

The Guidelines are encouraged to be used on a voluntary basis on any project that is located in any hillside area, regardless of the steepness of the slopes. The County officially defines an HMA as having 25% or greater slopes; however, "24% or lesser" slopes are still hillsides, and projects on the "lesser" slopes can have negative impacts on hillside terrain that could be reduced or avoided by following these Guidelines. Additionally, one of the goals of good hillside design is to enhance community character, which is better-achieved when adjacent projects are designed "as one" – an *integrated community* - and not two separate "hillside" and "non-hillside" developments. Not utilizing sensitive design techniques on the lesser slopes may result in just this effect - a community that is divided by incompatible designs. Therefore, it is recommended that the Guidelines be used when developing on "steep" hillsides as well as "lesser" hillsides.

Use of the Guidelines is *required* for projects that are subject to the Ordinance. It is important to note that when a project is determined to be subject to the Ordinance, *all areas of the project site* are subject to the Ordinance and not just those portions of the site having 25% or greater slopes. To determine if a project is

Comment [A3]: Need to review criteria for determination; need to consider all design factors and development tools for working out issues

subject to the Ordinance, please contact the Regional Planning Department or consult the text of the Ordinance online at planning.lacounty.gov.

USING THE GUIDELINES

For projects subject to the Ordinance, Finding C requires that the project "substantially comply" with the Guidelines (See Appendix D). The Guidelines are divided into five major design categories containing a wide variety of design Best Practices (BPs). To earn substantial compliance, hillside projects must meet at least three BPs in each section. For smaller projects (typically less than 10 acres), substantial compliance may be reduced to meeting just two BPs in each section. Larger projects (50 acres or more) are encouraged to satisfy four or more BPs per section, since in most cases a larger project site will facilitate the use of a greater variety of design techniques. The list of BP's is not exhaustive, and is not intended to limit the methods and techniques that may be considered in determining compliance with the Ordinance. Rather, the BP's provide a menu of options that are representative of best development practices within Hillside Management Areas.

Comment [A4]: What does this mean to the applicant? Will they still be in compliance if they meet 3 in each category? This sentence is unnecessary, many of the BP's are based on percentages of the site which makes it harder to meet those items the larger the project gets because you have to do more of it. I would argue that larger projects are no more capable of meeting 3 BP's than medium size projects.

The BPs are not individually weighted in the Guidelines. However, more weight may be given to a particular BP based on the location, context, size and/or complexity of the project. Half-credit may be given for a BP if the project design does not fully meet the BP but partially satisfies it to the satisfaction of the County. No individual BP 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.

In addition to complying with Ordinance findings, projects must also be evaluated according to other factors such as General Plan policies, Healthy Design standards, and California Environmental Quality Act criteria. These factors could also influence which BPs may be more appropriate for any given project. Projects are encouraged to use BPs that not only satisfy the Ordinance findings but also these other factors. Lastly, use of any BP in a project design is subject to review and approval by all affected County departments, most often Public Works, Fire, Parks and Recreation, and Public Health.

Many features have been included in the Appendices of these Guidelines to help facilitate the design of better hillside projects, as well as better understanding of sensitive hillside design and the general HMA process. In addition, other features (such as a hyperlinked Table of Contents and hyperlinked Terms) are intended to help the reader more quickly access and cross-reference information. Please note that in the Guidelines, the first instance of a Term that is defined in the Glossary will be hyperlinked to the Glossary for quick reference.

If you should have any questions, comments or suggestions about the use or format of the Guidelines, please send an e-mail to bmenke@planning.lacounty.gov.

A NOTE ON DENSITY

The land use designation ("plan category") establishes the appropriate density range for a project, including the density maximum. However, there are a number of other factors that can affect the project's density. Several are listed below:

- Subdivision 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)

- Natural constraints (such as steep hillsides and habitat areas)
- Open space and parking requirements
- Public easements and dedications (such as for utilities)
- Community compatibility and neighbor concerns

Therefore, it is important to consider all of these factors when designing a project and seeking to achieve a set or "ideal" number of dwelling units. A good design can balance many of these factors while still achieving density goals. However, the final decision on the appropriate density will rest with the hearing body after a careful consideration of staff's recommendation, public testimony, the applicant's request, and the particular aspects of each project.

DESIGN BEST PRACTICES

1. Site Planning

Objective: Conserve land, link open spaces, and promote a more unique neighborhood character that is compatible with hillside terrain, ~~and retain or re-establish the natural landforms of the site~~.

Clustered (Density Controlled Development) development, the grouping of small lot residential properties on a development site so that more land can be utilized for open space and recreation should be encouraged as a low impact development technique. Advantages include creation of a closer community requiring less infrastructure and more undisturbed area.

1.1. Locate development within 500 feet of existing infrastructure such as sewer and water lines, and existing roadways.

1.2. Locate at least 50% of the development footprint on the flattest portions of the project site (i.e., those areas having slopes of less than 25%).

1.3. Utilize previously graded or disturbed areas on the site for new development such that further development within undisturbed areas is reduced.

1.4. Create smaller groups and blocks of lots that have less than 800 feet (suggest 1200') between roadway intersections unless roadway geometrics or traffic volumes warrant a longer intervening distance.

1.5. Reduce single-family lot (pad) sizes to 15,000 square feet (sf.) or less (unless larger lots sizes are required by a Community Standards District).

1.6. Vary lot sizes by a degree of at least 1.5:1 (i.e. 5,000 sf., 8,000 sf., 12,000, sf.,18,000 sf., etc.). This technique encourages larger lots and a larger area of disturbance. A more effective technique to vary streetscapes is provision of a variety of garage placements within the same sized lots.

1.7. Differentiate pad elevations over the site "by street", "by block", and "by lot" to provide variety, distinctiveness and views, and to better conform to the natural topography.

1.8. Place the narrow side of the lot (or building pad) such that it faces the roadway and is in the direction of the slope.

Comment [A5]: 50% requirement for development to be located on slope less than 25% should have some flexibility since on many properties the less than 25% slope contain sensitive biology, significant feature, wildlife corridors or drainage area that would be required by the ordinance to be preserved on-site. It might be difficult to comply with this goal given the many other goals and design requirements that will also be required when designing the site plan. Again this would have an impact on the developable portions of site and reduce the allowable density if not given some flexibility regarding this goal

Comment [A6]: Suggests grid design. BMP for Hillside would create more grading

Comment [A7]: Why is this a specific length of 800 feet? Other factors such as product type, street layout, topography can affect distance between intersections.

Comment [A8]: Vary within planning areas? Or lot to lot? Lot to lot variation does not blend well with contoured grading. It is unclear what the goal is here, or how it connects to the objectives of the ordinance. Maybe OK as one of a menu of choices that could work for a specific location.

Comment [A9]: Dramatic variance and not typical of any community

1.9. Utilize terraced building pads in select areas to reduce the area of disturbance, and conform more closely to existing topography, especially in order to preserve slopes that exceed 50%.

1.10. Preserve the steepest site slopes, main hilltops and ridgelines for recreational uses within the project's dedicated open space areas.

1.11. Exceed the minimum Ordinance open space acreage requirements by 10% or more.

1.12. Preserve undisturbed open space contiguously over the site, utilizing segments of land that are at least 150 feet (ft.) wide or as otherwise wide enough to allow sufficient animal migration as determined by the Los Angeles County Biologist.

1.13. If the size of the development area allows, ~~Utilize~~ utilize at least 25% of disturbed (improved) open space for recreational purposes, unless doing so increases the area of disturbance.

1.14. Locate and design improved open space as a buffer (~~at least 5~~20 ft. ~~wide~~from the edge of the lot) between undisturbed open space and development. (wide swaths of flat areas increase the amount of grading).

1.15. Create scenic vista points at prominent site locations (such as hilltops and ridgelines) and dedicate them for public use.

1.16. Provide private (connector) trails that link to the project's open space areas and any onsite or offsite public trails.

1.17. For blocks of development that exceed 800 feet between intersections, design ~~private~~ mid-block thru-paths that connect to intervening streets or open space areas, and dedicate the paths for public use. ~~(should be for residents of the community only)~~

1.18. Use other innovative site planning techniques not mentioned in this section that promote the overall design Objective.

2. Grading and Facilities

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

~~2.1.~~ Avoid mass cut and fill grading that results in more than a 50 ft. elevation change from the existing natural grade to the finished manufactured grade anywhere over the site ~~by creating incremental transitions within the site that relate to the natural topography~~.

2.2. Use contoured grading lines that match or closely match the existing topography, generally avoiding lines that trace 45-90 degrees against the natural contour.

2.3. Utilize undulating banks for graded slopes in order to maintain the natural flow of the topography to the greatest extent feasible.

Comment [A10]: 1.1.Why have open space acreage requirements in the Ordinance if you then need to exceed them by 10% in the Guidelines?

Comment [A11]: 1.2.This is not always possible, particularly in larger projects.

Comment [A12]: 25% seems like a very high percentage. In order to use this area for recreational purposes it would generally have to be flat (or less that 10% sloping) which means more grading, which seems counterproductive. Perhaps reduce threshold to 20%

Comment [A13]: 1.1.Wide swaths of land increases grading. This could actually create more grading as you try to manufacture (create) a buffer.

Comment [A14]: 1.3.If you have a private development with hilltops you may not want the public access and use within your project.

Comment [A15]: This has nothing to do with land form development. Need exemption for gated community

Comment [A16]: May not be feasible on larger projects

Comment [A17]: Maybe the word "topography" should be changed to "landform". The way its currently worded could mean that you have to follow the existing topography horizontally and vertically (ie minimal cuts and fills).

Comment [A18]: contoured grading along with the open space requirement to have 51% of the 70% open space requirement be natural open space will significantly reduce the buildable area on any given site. Only 19% of the landform alterations will include the graded contoured slopes. Projects already build in the Santa Clarita Valley and in all of those projects the 51% natural open space requirement would have significantly reduced the project's density and buildable area. Also when you utilize contoured grading with variable slope angles to match the natural topography this method of grading will reduce your buildable area since contoured graded slopes require additional landform alterations then traditional grading. Also it is my understanding that if a project is required to provide public parks space and or graded trails these improvements cannot be included in the 51% and will credited to the remaining 19% that can be counted to meet the project 70% open space. I believe the 51% natural open space requirement is intended to reduce landform alterations and reduced density. In the currently approved general plan and hillside development the 70% open space was complied with by incorporated natural open space, graded slopes, park space, trails, street parkway area and in some cases portions of the front yards with no limits on graded slopes %. By now requiring 51% to be natural undisturbed open space will clearly reduce project densities and buildable areas.

2.4. Design the project's longer graded horizontal slope surfaces and slope increments (typically 300 or more feet in length) to be variable in terms of height and spacing, in order to mimic natural topographical patterns.

2.5. ~~Locate water tanks and other public facilities that are 20 or more feet tall so that their highest point is at least 50 ft. below the crest of the most prominent mapped or unmapped[1] hilltop or ridgeline on the site (or the tallest unmapped hilltop/ridgeline within 1,000 feet linear distance, whichever is closer).~~ Encourage site-specific design techniques for creatively siting water tanks so that they impose minimal impact on the community from an aesthetic and environmental perspective.

2.6. Locate water tanks and other unattractive public facilities so that they are mostly or completely hidden from public views; or otherwise, screen them with berms or landscaping, or a combination of techniques.

2.7. Avoid hiding buildings with berms and block walls. Instead, locate and design the buildings in accordance with the other design measures contained in these Guidelines so that they are both more attractive and compatible with hillside views.

2.8. Design drainage facilities as multi-purpose site features that provide passive recreation (if such use is approved by Los Angeles County Public Works), wildlife habitat, and attractive landscaping. *(Note: These features may be counted towards required open space acreage if designed to the County's satisfaction. However, they should not encourage additional grading impacts but rather should be located in areas already designated for improvement such as park sites, roadsides, or previously-graded flat areas.)*

2.9. Build retaining walls to be less than six feet in exposed height, and terrace the walls where appropriate and in a manner that does not substantially increase hillside impacts.

2.10. Use earth-tone colors and materials for exposed hardscape surfaces such as block walls, retaining walls, drainage terraces and storm gutters.

2.11. Use attractive designs and materials for any 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.

2.12. Use other innovative grading and public facility design techniques not mentioned in this section that promote the overall design Objective.

3. Road Circulation

Objective: Preserve the physical shape of the hillside, maintain good connectivity, and provide scenic roadway views.

3.1. Provide at least two points of paved roadway access to a County highway (major or secondary) for any project (or portion of development) greater than ~~50~~ 75 dwelling units and 10 acres in size.

[1] Not mapped according to any County Plan or Ordinance that officially identifies significant ridgelines or other hillside features.

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Comment [A19]: Elevation needed for flow and pressure of water. Subject to design and approval of water agency to meet with water system standards and existing infastructure

Comment [A20]: Which department? Planning, Public Works? Who has final word?

Comment [A21]: As required by Fire Dept

(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.) *(This is a public safety issue, and these guidelines should discourage unnecessary streets which create more impervious surfaces, an increase of stormwater runoff, and area of site disturbance, causing a detrimental effect on the environmental.)*

3.2. Locate and design new roadways to follow the existing natural slope contours, subject to the sight distance requirements of Los Angeles County Public Works.

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. (Can potentially cause liability and maintenance problems for HOA's)

3.4. Use undulating patterns such as curves and and varying grades for roadway segments exceeding 1,000 feet in length.

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 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.)*

3.6. Use cul-de-sacs 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 1,000 feet.

3.7. Provide unpaved trail or paved pedestrian path thru-connections for all cul-de-sacs. *(Note: Fee-dedicated strips are recommended instead of easements over private lots.)*

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. (see comment under 3.1- edge buffers should be unpaved if possible and paved streets should be kept to a minimum.)

3.9. Locate roadways at least 100 ft. below the crest of (most significant crests are mapped – how is a "prominent" hilltop or ridge defined? How far from mapped crests and ridgelines?) unmapped prominent hilltops and ridgelines situated on or off the site.

3.10. Design "split" roadways or landscaped medians to preserve unique or important natural features (such as oak trees or rock outcroppings). Where it can reduce grading and minimize the area of disturbance, keep sidewalks on one side of the street only.

3.11. Use bridge and culvert design techniques that maximize the preservation of natural watercourses, and allow easy wildlife migration beneath the bridge (minimum 6 ft. of vertical and horizontal clearance), or culvert.

3.12. Use private drives instead of public roadways as a means of encouraging narrower roadway widths that would require 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.)* *(Combine with 3.3)*

Comment [A22]: This has nothing to do with land form management

Comment [A23]: 1.1.What is the purpose or goal of this guideline? How does that positively affect hillside design? Fire Dept allows up to 75 units on a single means of access.
"County Highway" is ambiguous – suggests an existing road. The access should be to a specific type of street (collector, arterial, etc) that might be built. We should have an engineer tell us what is a reasonable road classification to require.

Comment [A24]: don't understand this guideline. What does 2,000 sf of less block perimeter mean? When I think of blocks, I think grid linear, which is not flowing or contoured design.

Comment [A25]: Why? Sometimes culdesacs are necessary to provide flexibility in layout within hillside design.

Comment [A26]: This guideline limits view potential of lotting. Also creates additional noise from vehicles directly adjacent to natural open space. This guideline could actually "handcuff" good design.

3.13. Use other innovative roadway circulation design techniques not mentioned in this section that promote the overall design Objective.

4. Building Design

Objective: Promote attractive views through building siting, material and color that also complements natural hillside features.

4.1. Place or limit structures so that their rooflines are equal in elevation or below the roadway grade of the development above.

4.2. Utilize terraced (or "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.)*

4.3. Vary building setbacks and orientation for each street and block throughout the development, to avoid monotonous views and follow the natural topography to the extent feasible. Encourage a variety of garage and house placements in order to respond to different site conditions and create a streetscape with variety.

4.4. Limit building heights to two stories (or ~~25~~35 feet measured from finished floor elevation) when sited on 25% or greater slopes or when the building pad elevation is located less than 50 feet below the crest of the nearest unmapped hilltop or ridgeline. (In conflict with 4.2 – terraced homes that respond to existing topography often have three stories and building vertically rather than horizontally contains the area of disturbance and reduces grading)

4.5. Vary the treatments and materials used for building facades and exteriors in highly-visible locations on the site.

4.6. Use pitched roofs (at least 1.5:1) and fire retardant ~~shingles~~materials for new residences, subject to the approval of the Fire Department. (Shingles can be an extreme fire hazard even if approved by the Fire Department)

4.7. Utilize architectural design techniques to screen rooftop mechanical equipment from public view.

4.8. Design building exteriors with stonework and/or woodwork that matches real geologic and botanical varieties found in visible locations on the site or in the surrounding community.

4.9. For building 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 blade signs) per business establishment.

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.)*

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.

Comment [A27]: Why is an ordinance to protect land form all also becoming a design document for items other than land form?

Comment [A28]: This would apply to very few sites

Comment [A29]: I don't think the split-level homes are very popular by the end user (the homebuyer)

Comment [A30]: This could impact building height

Comment [A31]: could anyone tell from either nearby or far away when viewing a community that the stone/woodwork matches the natural area.

Comment [A32]: Are we trying to preserve land form?

Comment [A33]: 6' high max is a bit restrictive for larger developments.

4.12. Illuminate signs from the exterior, with downward-projecting, hooded light fixtures that minimize light trespass.

4.13. Use other innovative building design techniques not mentioned in this section that promote the overall design Objective.

5. Landscaping

Objective: Preserve existing vegetation, conserve water and provide more attractive and comfortable settings within the developed areas of the hillside project.

5.1. Retain and incorporate 50% or more of existing onsite trees (including woodlands and oak woodlands) into the overall project landscaping plan. *(Note: Please consult with the County Biologist when attempting to incorporate existing woodlands into a project-wide landscaping plan.)*

5.2. Avoid all oak tree encroachments and removals through the sensitive location and design of development.

5.3. Landscape all graded slopes and improved open spaces in a 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; c) provides shade; d) enhances slope stability (must landscape all slopes ≥5 ft. high); e) increases fire protection.

5.4. Utilize trees, shrubs and ground cover to ~~completely hide~~minimize and enhance ~~a~~all exposed graded ~~a~~reas. Graded slopes should be restored to blend gracefully with natural, undisturbed existing slopes.

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. and one new tree per 800 sf. (Combine with 5.4)

~~5.6.~~ Vary the height, placement and color of landscaping materials throughout the site. ~~Utilize plant palettes that reflect the natural colors of the surrounding undisturbed areas.~~

~~5.7.~~ Use a variety of plant species in order to encourage a diversity of bird and pollinator visitation and decrease problems associated with pests and plant disease. ~~Encourage use of native, drought tolerant plant material that supports local ecosystems.~~

5.8. Plant new trees and shrubs of a sufficient interval, size and height to screen hardscape surfaces and less attractive features such as garage doors and block walls.

5.9. Use plant materials and irrigation systems that, combined, conserve water 20% or more beyond State and County requirements.

5.10. Reapply the graded topsoil to manufactured slopes and improved open space areas.

5.11. Use the plants listed in the project's surveys and biological reports within improved open space areas. (combine with 5.7)

Comment [A34]: Very high %

Comment [A35]: Doesn't seem feasible to avoid all oak trees. And will cause the "oak tree on an isolated knoll" scenario where the tree is avoided but looks out of place and non-natural graded look. Avoiding every tree seems overly restrictive.

Comment [A36]: I don't understand this guideline. Generally all graded areas are required to be landscaped anyway. And I would think you would actually want to utilize trees, shrubs and ground cover to somewhat hide or blend the grades areas.

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5.12. Use other innovative landscaping design techniques not mentioned in this section that promote the overall design Objective.

APPENDICES

A. List of Design Exhibits

Design exhibits are necessary to evaluate the development project in accordance with County policies, code requirements and case processing procedures. Some projects may not need to provide all exhibits listed below, but rather on an as-needed basis at the discretion of County staff.

- Site Plan (Exhibit "A") – A plan that shows existing contour intervals (10 ft. or less), existing development and proposed development, to include lots, structures, roadways, driveways, grading and building pads. Should also depict roadway and retaining wall cross sections.

- Site Profile – A drawing that shows a cross-section view of the entire site from one edge to the other, or, a section view of the largest area of cut and fill ~~one particular large block or area of development~~. Sections should depict what the public will view from major access roads.

- Block Elevation – A drawing that shows a row of multiple house or other building elevations as they would appear to the public from the fronting street. May also include depictions of landscape screening.

- Landscape Plan – A color plan that shows all proposed landscaped areas, to include plant materials and pedestrian and aesthetic features such as walkways, recreation equipment, fountains, gardens, etc. Should also depict existing vegetation that will be preserved, as well as oak or other mitigation trees (if known).

- Fuel Modification Plan – A special landscape plan that shows all fuel modification zone boundaries, distances between boundaries, and types of vegetation, as required by the Los Angeles County Fire Department. (Please refer to the Fire Department's separate guidelines when creating this plan.)

- Open Space Exhibit – A simplified site plan showing all proposed lots, roadways and grading only; also depicts, numbers and labels the restricted-use areas and separate lots to be preserved as OS; distinguishes between different types of OS and provides a legend that describes each type of OS; and provides a table listing the approximate acreage of the individual OS types and the quantity and percentage of improved (disturbed) and undisturbed OS within each lot, and for the overall project.

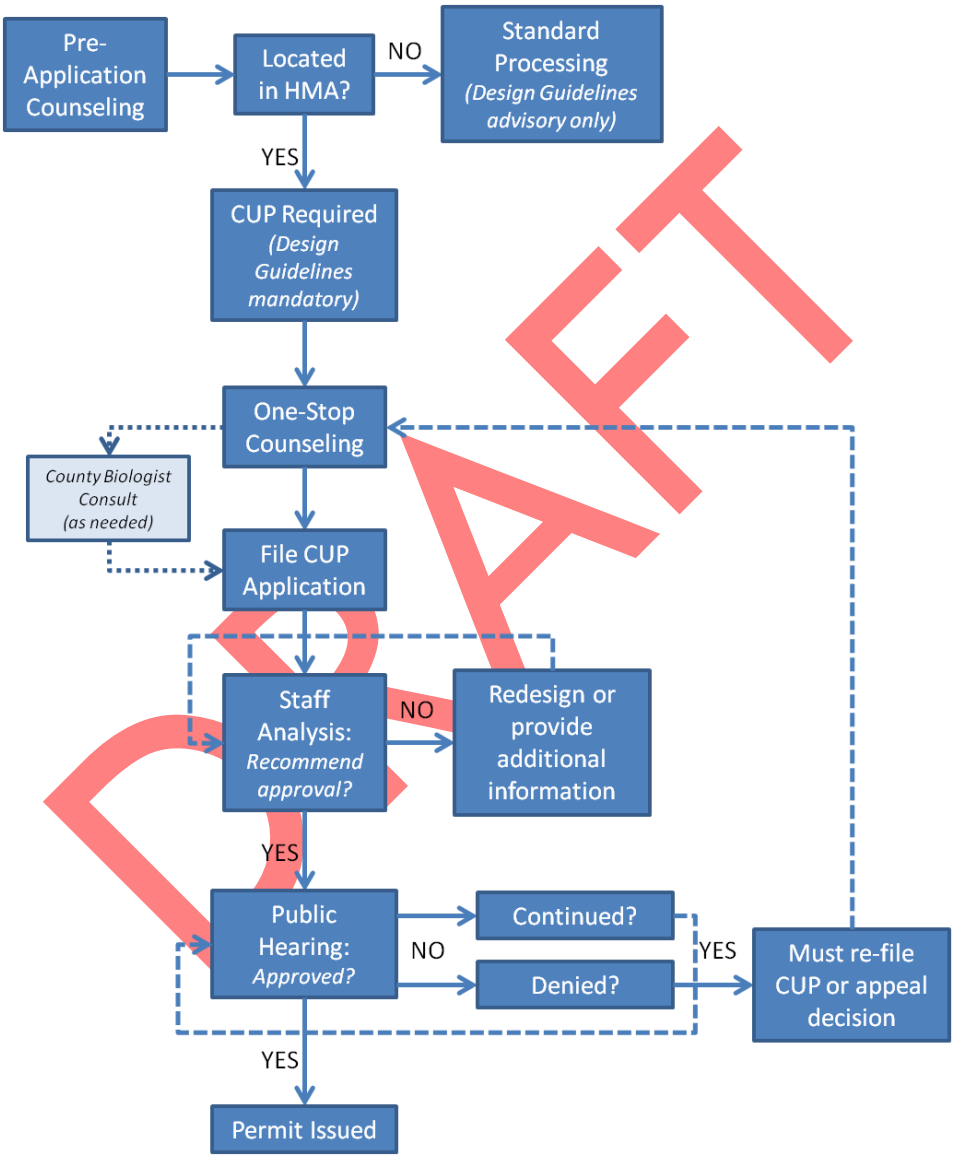
- Slope Map – A complete site plan (road and retaining wall cross sections excluded) that depicts the three different slope ranges (<25%, 25-49%, and ≥50%) according to a color scheme of green – yellow – red, respectively; provides a table listing the slope density calculations for each slope range according to Plan Designation and lists the site acreage within each Designation; and indicates the project's proposed density (number of dwelling units) and the midpoint density.

- Viewshed Analysis – A color exhibit that shows how new development would impact existing hillside views. It typically depicts a "before" and "after" perspective view of the hillside, and includes realistic or semi-realistic photos or renderings of the actual buildings and landscaping that will be used in the development, showing how they will affect the hillside views.

- Line-of-Sight (LOS) Exhibit – A site plan or cross section showing the specific degree angle of view from one or more vantage points on the site. The "sight line" is drawn from the point of view (POV) to some object of observation (such as a road intersection or ridge-top) depicted at some distance from the POV on or off-site. The sight line will show any intervening features that may block the LOS.

B. HMA Ordinance Process

The below process flowchart is for <u>basic information only</u>. Please consult with Regional Planning staff for a more detailed explanation of the entire process.



C. HMA Ordinance Findings

HMA CUP BURDEN OF PROOF
(Section 22.56.215 of the Los Angeles County Zoning Code)

For each item, on a separate sheet, please describe in detail how the project satisfies the specific Finding. Under each Finding A, B and C, include an explanation of how the project meets the Ordinance requirements and substantially utilizes sensitive hillside design techniques contained in the Hillside Design Guidelines.

A. Finding 1: That the proposed development preserves the physical integrity of HMAs to the best extent feasible, resulting in the least amount of impact to hillside resources, by:

   a. Avoiding development in HMAs to the extent feasible;
   b. Locating development in the portions of the HMAs with the fewest constraints; and
   c. Using sensitive design techniques.

B. Finding 2: That the proposed development preserves the scenic value of HMAs to the best extent feasible, resulting in the least amount of impact to onsite and offsite scenic views of slopes and ridgelines as well as views of other unique aesthetic features of the hillside, by:

   a. Avoiding development in HMAs to the extent feasible;
   b. Locating development in the portions of the HMAs with the fewest constraints; and
   c. Using sensitive design techniques.

C. Finding 3: That the proposed development provides sufficient open space and enhances community character through substantial compliance with the Hillside Design Guidelines.

Comment [A37]: See comments on the Hillside Ordinance itself. The standards that are required to meet the findings are way too high. "best extent feasible, avoid, fewest, substantial" are all words that should be eliminated from the required findings. The findings should be reasonably achieved

D. Hillside Project Design Checklist

Use this checklist to evaluate the overall design performance of a hillside project. This checklist is intended as a summary only and does not replace the full text contained in the Hillside Design Guidelines. (Note: Projects subject to the HMA Ordinance can satisfy additional design Best Practices by adding them to the HMA CUP Conditions of Approval.)

	HILLSIDE PROJECT DESIGN CHECKLIST (PART 1 of 2) **Site Planning & Grading/Facilities** Project Name: Date:					
Item	**Best Practice - Description**	**FS**	**PS**	**DNS**	**N/A**	**CofApp**
1.1	Locate development near infrastructure					
1.2	Locate development in flattest areas					
1.3	Utilize previously graded or disturbed areas					
1.4	Create smaller groups and blocks of lots					
1.5	Reduce lot sizes to <15,000 sf. (unless larger lots req. by CSD)					
1.6	Vary lot sizes					
1.7	Vary pad elevations					
1.8	Place the narrow side of the lot on street					
1.9	Utilize terraced building pads					
1.10	Preserve hillside features for recreation					
1.11	Exceed min. OS requirements by ≥10%					
1.12	Preserve contiguous undisturbed OS					
1.13	Utilize ≥25% of improved OS for recreation					
1.14	Provide OS buffers					
1.15	Create scenic vista points					
1.16	Provide private (connector) trails					
1.17	Design mid-block thru-paths					
1.18	Use other innovative site planning techniques					
2.1	Avoid mass cut/fill grading					
2.2	Use contoured cut/fill grading lines					
2.3	Utilize undulating banks for graded slopes					
2.4	Design variable horizontal slopes					
2.5	Locate public facilities (lower height)					
2.6	Locate public facilities (screening)					
2.7	Avoid berms and block walls					
2.8	Design multi-purpose drainage facilities					
2.9	Build retaining walls <6 ft./terrace					
2.10	Use earth-tone colors and materials					
2.11	Use attractive fence design & materials					
2.12	Use other innovative grading/facility techniques					
	Part 1 Total (30 BPs): [ ] out of [ ] applicable BPs used.					

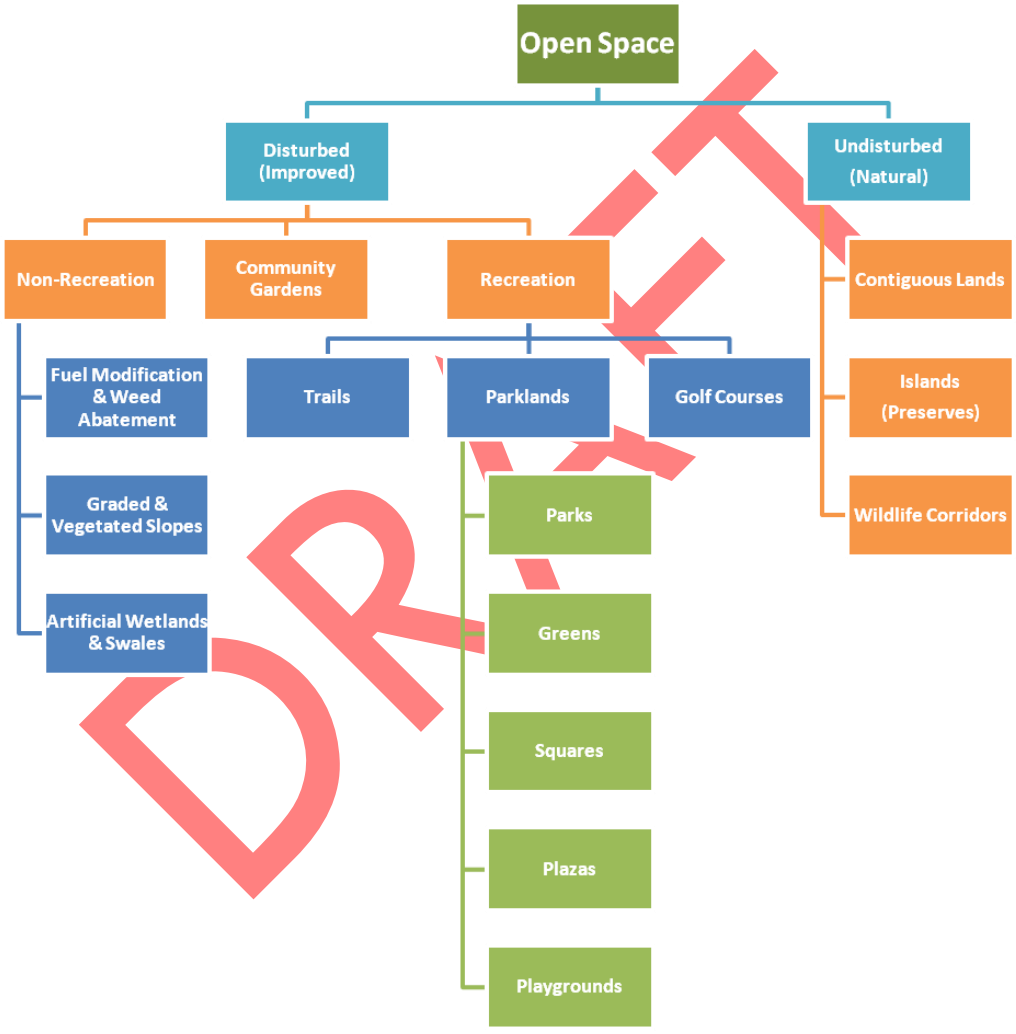
Check these boxes as they apply: FS (fully satisfies the BP); PS (partially satisfies the BP); DNS (does not satisfy); N/A (not applicable)

CofApp: Check this box if a future phase of the project will contain the design feature, as part of the CUP Conditions of Approval.

	HILLSIDE PROJECT DESIGN CHECKLIST (PART 2 of 2) **Roadways, Buildings and Landscaping** Project Name: Date:					
Item	**Best Practice - Description**	**FS**	**PS**	**DNS**	**N/A**	**CofApp**
3.1	Provide at least 2 points of paved access					
3.2	Locate/design roadways to follow natural contours					
3.3	Use private drives for hillside preservation					
3.4	Use undulating patterns and varying grades					
3.5	Connect roadways to form blocks					
3.6	Use cul-de-sacs in limited instances					
3.7	Provide trail/path connections for all cul-de-sacs					
3.8	Utilize "edge" (single-loaded) roads					
3.9	Locate roadways >100 ft. below hilltops/ridges					
3.10	Design split roadways/landscaped medians					
3.11	Use bridge design techniques for preservation/migration					
3.12	Use private drives instead of public roadways					
3.13	Use other innovative road circulation techniques					
4.1	Place/limit structures so that rooflines don't protrude					
4.2	Utilize split-level building designs					
4.3	Vary building setbacks and orientation					
4.4	Limit building height to two stories (25 ft.)					
4.5	Vary façade treatments and materials					
4.6	Use pitched roofs and shingles					
4.7	Utilize architectural screening techniques					
4.8	Design with stonework/woodwork					
4.9	Use smaller building signs with natural materials					
4.10	Use smaller monument signs with natural materials					
4.11	Limit sign height/view projection					
4.12	Illuminate signs from exterior/reduce light trespass					
4.13	Use other innovative building design techniques					
5.1	Retain and use ≥50% onsite trees					
5.2	Avoid all oak tree encroachments and removals					
5.3	Landscape all graded slopes/improved OS beyond reqs.					
5.4	Completely hide all exposed graded surfaces					
5.5	Landscape ≥50% at listed shrub/tree ratios					
5.6	Vary the height/placement/color of landscaping					
5.7	Locate plant species ecologically					
5.8	Plant trees/shrubs to screen hardscape					
5.9	Use water-efficient plants/irrigation ≥20% beyond reqs.					
5.10	Reapply graded topsoil to manufactured slopes/improved OS					
5.11	Use plants listed in project's surveys/bio reports w/in imp. OS					
5.12	Use other innovative landscape design techniques					
	Part 2 Total (37 BPs): [ ] out of [ ] applicable BPs used. **Grand Total (67 BPs):** [ ] out of [ ] applicable BPs used. Reviewer Name:					

E. Open Space Typologies

The below open space typology "tree" is for <u>conceptual reference only</u>. It does not supersede any formalized definitions of open space or different types of open spaces contained in the County Code or the General Plan.



F. Index of 1980 HMA Policies

Below is a list of relevant policies and practices from the 1980 General Plan Hillside Management Performance Review section that have been carried over as "Best Practices" in the Hillside Design Guidelines:

- Locating development in the "least environmentally-sensitive" areas (LU-A4)
- Minimizing grading, using contour grading, preserving water courses, rock outcroppings, and trees (LU-A11)
- Siting development close to existing public infrastructure (LU-A10)
- Preserving trees as "community assets" (LU-A1)
- Using landscaping to "soften visual impacts" of new development (LU-A12)
- Promoting a greater range of housing types (via a range of lot sizes) (LU-A1)
- Using "more concentrated" smaller lots sizes/lot blocks, for resource preservation (LU-A2, LU-A6)
- Using "more concentrated" smaller lots sizes/lot blocks, for fire protection (LU-A8)
- Designing signs to have "minimum impact on scenic [hillside] features" (LU-A12)
- Placing edge roads ("other measures") as fire breaks (LU-A8)
- Utilizing irrigated landscaping to buffer development from undisturbed natural areas (LU-A3)
- Siting development in already-graded areas (i.e., areas with less "natural cover") (LU-A9)
- Providing two or more means of paved access to a County highway (LU-A10)
- Preserving ridgelines and limiting building heights (LU-A12)
- Using other innovative design techniques (LU-A1, LU-A11)
- [**RESERVED**] General Plan Update policies

G. Screening Plant Materials Table

[TO BE ADDED] *A table that lists and describes various species of plants which are good for canopy shape (screening ability). All species listed on the table will be considered as County "pre-approved" for use in landscaping and fuel modification plans. Applicants are further advised not to use plants on the 2011 Invasive and Flammable Plant List and are encouraged to use plants on the Drought Tolerant Plant List.*

H. Earth Tone Color Palette

[TO BE ADDED] *Visual examples of materials with earth-tone colors that satisfy County requirements.*

REFERENCES

- 1980 Los Angeles Countywide General Plan
- 1980 Los Angeles County Hillside Design Guidelines
- Title 21, Los Angeles County Code (Subdivision Ordinance)
- Title 22, Los Angeles County Code (Zoning Ordinance)
- 2009 LA County Private Drives and Traffic Calming Manual
- 2011 Invasive and Flammable Plant List (http://planning.lacounty.gov/green)
- Drought Tolerant Plant List (http://planning.lacounty.gov/green)

GLOSSARY

Berm – A graded, "rounded" slope at the top of a hill that helps to screen a development feature from view. Development features that are "bermed" are typically screened or partially screened from public views.

Best Practice (BP) – Any of the individual Numbered Items (such as "1.1" or "3.8") contained in these Guidelines that provide a specific benchmark for measuring the sensitivity of a hillside design.

Building Pad – A portion of a site graded flat and level to contain a new building (such as a home) and in some cases accessory structures (such as a garage, guest house or horse stable).

Constraints – Areas of the site that make development difficult or less desirable, or otherwise force a reduction in development size/scale. Examples include: steep hillsides, woodlands, floodplains, fault zones, and sensitive habitats. Constraints can also be artificial, such as surrounding structures that may affect the compatible setback or height of new buildings within the development.

Cut – See "Excavation" below.

Development – The transformation of existing undeveloped areas through new subdivisions (except when used for undisturbed open space) or other activities that may require a permit, such as grading, building pads, structures, roadways, infrastructure, utilities, common driveways, fuel modification, and all new landscaping (other than for environmental mitigation or restoration purposes).

Development Footprint – The area in which "Development" (defined above) is contained.

Earth Tone Color – A color that draws from a palette of browns, tans, grays, greens, and reds, and which is muted and flat in emulation of the natural colors found in dirt, rocks, and vegetation.

Edge Road – A roadway located on the outer boundaries of a development that acts as a buffer between development and undisturbed areas of the site or adjacent undeveloped areas off the site.

Excavation – The removal of earth materials by artificial means, resulting in a lowering of the existing grade.

Fill – The deposition of earth materials by artificial means, resulting in a rise in the existing grade.

Grade – The vertical location of the ground surface. Also see "Grade, Finished" and "Grade, Natural" below.

Grade, Finished – The grade of the site at the conclusion of all grading efforts.

Grade, Natural – The grade prior to all grading efforts.

Hillside – A portion of sloping terrain that is visually distinguished by a vertical rise or climb from a flat base of land (the "toe" of the slope), and generally ends in a crest or apex that forms a hilltop or ridgeline. Hillsides also form other physio-geographic features such as spurs, draws, saddles, valleys, plateaus and depressions.

HMA – "Hillside Management Area", defined as any hillside with a 25% or greater slope.

Infrastructure – See Public Facilities.

Landscaping – Generally, plants (i.e., trees, shrubs and organic ground cover material such as grass or bark mulch) and associated decorative/hardscape elements such as walkways, fountains, ponds, gravel and rocks.

Open Space (OS) – Site areas generally free of buildings and pavement, and preserved in a natural state or otherwise improved for recreation, small-scalecommunity agriculture/gardens, safety or aesthetic purposes.

Ordinance – The LA County Hillside Management Areas Ordinance.

Parkland(s) – A category of improved recreation open space available for public use, divided into five main types, generally based on size (from smallest to largest): playground, plaza, square, green, and park.

PMT – The LA County Plant Materials Table, located in the Appendix.

Preserve – In the context of hillside development, a preserve is an undisturbed open space area that is completely surrounded by development. Preserves typically contain sensitive plant and/or animal species.

Public Facilities – Infrastructure (except for "Roadways," which are defined separately below) such as water tanks, drainage basins, debris basins, and water treatment plants that serve the project and/or surrounding community and that may be maintained by the County or a separate entity (such as an HOA).

Public Use – A portion of the site, which may be maintained by the County or a separate entity (such as an HOA), that allows access to the general public in accordance with posted rules and procedures.

Roadway – A type of infrastructure that may be any of the following: Public highways, streets and alleys; private and future streets; private streets; private drives; private driveway and fire lanes (when serving five or more lots or dwelling units); and common driveways 20 feet or more in paved width (when serving five or more lots or dwelling units).

Slope – An inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

Steep Hillside – A hillside that has a slope of 25% or greater. Development within steep hillsides triggers the rules and procedures of the HMA Ordinance. Hillsides that have less than 25% slopes are called "lesser" hillsides.

Structure – Anything built or erected which requires a fixed location on the ground, or is attached to something having a fixed location on the ground, such as a wall, building, porch, deck, swimming pool or carport.

Terraced Pad – A single building pad that has two or more distinct grades - - one higher than the other -- and is designed to fit into the hillside such that less vertical (cut) grading and landform alteration results.

Wildlife Corridor – A narrow stretch of contiguous undisturbed open space that is typically 50 to 250 feet wide (or having a width as determined by the County Biologist), and predominantly for wildlife travel through the project site from one end to another. Smaller portions within the corridor may be disturbed, such as for utility pads or trails.

ACKNOWLEDGEMENTS

The Los Angeles County Regional Planning Commission
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Graphics
[TBD]

Screening Plant Materials Table
[TBD]

Cover Photo: Angeles National Forest
http://metamorphiqblogs.wordpress.com/2008/11/03/angeles-national-forest/