

01/31/05

Viewshed Analysis and Report: Work Plan Item 10-19 MODEL ORDINANCES SURVEY

The February 15, 2005 referral from Supervisors Beall and Alvarado included a request that Planning Office staff review the ridgeline/viewshed protection ordinances of cities within Santa Clara County. Staff expanded its research of different jurisdictions' approaches to viewshed preservation in response to this request.

Staff evaluated the relevant policies and ordinances of each city within Santa Clara County that has hillside development policies and found that their value as models varies considerably. While staff found useful elements in the regulations of several local cities, the *Town of Los Gatos Hillside Standards and Guidelines* document has been especially valuable, as it is a very comprehensive, relevant and up-to-date set of viewshed-protection standards and guidelines.

In addition to local ordinances, staff looked to various other cities and counties in California and elsewhere that might provide useful examples of viewshed-protection strategies.

Staff reviewed the regulations of the following jurisdictions for this survey:

Within Santa Clara County:

- | | | |
|-----------------|-------------|----------|
| Cupertino | Milpitas | San Jose |
| Los Altos Hills | Morgan Hill | Saratoga |
| Los Gatos | | |

Others:

- | | | |
|-----------------------|----------------------|----------------------|
| Berkeley | Napa County | Telluride (Colorado) |
| Clark County (Nevada) | Santa Barbara County | Tiburon |
| Los Angeles (city) | Santa Cruz County | Walnut Creek |
| Los Angeles County | San Rafael | Woodside |

The following pages summarize some of the better viewshed-protection strategies gleaned from these jurisdictions. They cover a range of topics that could each be a component of a comprehensive approach to effective viewshed protection in Santa Clara County.

REGULATORY APPROACH:

The following jurisdictions utilize tiered regulatory structures where level of review is based on scale and other visual-impact criteria. This system has the advantage of being efficient, in that it focuses energy on the larger, potentially problematic houses. It also actively encourages applicants to build smaller, less visible houses.

San Rafael: The Hillside Development Overlay District (-H) applies to all lots in the hillside resource residential and hillside residential zoning districts. The regulations for the Hillside Development Overlay District also apply to all lots with an average slope greater than twenty-five percent (25%). All applications are also evaluated for conformity with the Hillside Residential Design Guidelines Manual. Applications must include comprehensive “Compliance Checklist” which addresses all applicable design standards and criteria.

Regulatory structure is two-tiered. Applications meeting basic criteria are reviewed administratively by staff, while applications exceeding threshold criteria are subject to review by the City Council, upon the recommendation of the Design Review Board and the Planning Commission. Applicant must demonstrate that alternative design concepts carry out the objectives of the ordinance section and are consistent with the general plan. *San Rafael Municipal Code, Chapter 14.12: Hillside Development Overlay District (-H).*

Napa County: Projects on parcels in the Viewshed Protection Combination District (-V) are subject to specific viewshed-protection findings in addition to the findings required for use permit approval. Site development on parcels outside of the -V combination district may be subject to the requirements of the Viewshed Protection Program. This ordinance applies to all applications for new, expanded or remodeled structures located on slopes of fifteen percent or more or located on a minor or major ridgeline, and projects involving significant grading or earthmoving activity on slopes of fifteen percent or more.

The Viewshed Protection Program provides a three-tiered application review structure. Projects meeting baseline standards are subject to administrative (staff level) approval. Projects exceeding administrative review thresholds are subject to discretionary review by either the Zoning Administrator or Planning Commission, as determined by planning director. Specific findings must be made for the Zoning Administrator or Planning Commission to approve the project.

Prior to issuance of a building permit, the property owners must execute and record a deed restriction requiring building exteriors, existing and proposed vegetation, to be maintained by the owner or the owner's successors so as to prevent the project from being viewed from any designated public road. *Napa County Zoning Ordinance, Chapter 18.106: Viewshed Protection Program.*

BUILDING SIZE RESTRICTIONS:

All else being equal, smaller houses will have lesser visual impacts than larger houses. Absolute size limits are employed by several jurisdictions, and currently apply to the Los Altos area (n₁) and Milpitas foothills (d₂). Based on the 1996 experience of the West Valley Hillside Study where house size limitations were proposed (and roundly rejected), this may not be as practical and politically viable as a house size threshold system as is utilized by Napa County.

Los Gatos: The maximum floor area of each house is determined by using a floor area ratio adjusted to slope. The maximum gross floor area is 6,000 square feet for lots containing a net lot area of more than 32,000 square feet unless the Planning Commission grants an exception based on nine conditions. Cellars, garages up to 400 square feet in area, stables that are not fully enclosed and barns that do not exceed the maximum floor area allowed for accessory structures based on gross parcel size are not included in the gross floor area calculation. *Los Gatos Hillside Development Standards and Guidelines.*

San Rafael: For all zoning districts with which a hillside development overlay district is combined, the maximum gross building square footage of all structures (including garages and accessory structures over 120 square feet) is limited to 2,500 square feet plus 10% of the lot area with the maximum gross square footage set at 6,500 square feet. *San Rafael Hillside Residential Design Guidelines.*

Napa County: The ordinance allows administrative level review if maximum floor area of the main residence or agricultural structure is 4,000 square feet or less and the maximum cumulative floor area for accessory structures is 2,500 square feet or less. Projects exceeding this threshold are subject to discretionary review by Zoning Administrator, or upon referral, Planning Commission. *Napa County Zoning Ordinance, Chapter 18.106: Viewshed Protection Program.*

Woodside: Maximum house size is 6,000 square feet in RR (Rural Residential) and SCP (Special Conservation) districts. An exception, to 8,000 sq ft max, may be made by the Planning Commission on lots that are 150% or larger than the applicable minimum lot size for the zoning district. Additional findings relating to viewshed impacts must also be made. *Town of Woodside Zoning Ordinance, Chapter 153.047: Building Limitations.*

RIDGELINE DEVELOPMENT RESTRICTIONS:

Ridgeline protection has been deemed a priority of the County by the General Plan, but has also been challenging to implement largely due to difficulties in defining the land area that constitutes a ridgeline. Topography is complex, and what would appear as a ridgeline from a close-up vantage point may not from farther away. Defining and mapping the protected ridgelines will be the most important challenge for successfully implementing ridgeline protection policies.

Los Gatos: No primary or accessory building may be constructed so as to project above the physical ridgeline as seen from any “viewing platform” (There are four specific locations on the valley floor deemed “viewing platforms,” and the reviewing authority may designate one or more other locations as viewing platforms for a given application). If it is determined that a building cannot feasibly be sited below a significant ridgeline, the maximum building height shall be reduced to 18 feet. *Los Gatos Hillside Development Standards and Guidelines.*

San Rafael: Development of new structures within 100 vertical feet of a visually significant ridgeline (designated by official map) is prohibited unless this restriction precludes all reasonable economic use of the property. An exception may be granted if the decision-making body makes specific findings. *San Rafael Hillside Residential Design Guidelines.*

Napa County: One of the required findings for certifying that a project application may be reviewed at the administrative level is that the highest point of the proposed structure is located more than twenty-five vertical feet below a major or minor ridgeline. *Napa County Zoning Ordinance, Chapter 18.106: Viewshed Protection Program.*

Los Angeles County: The highest point of a building (excepting chimneys, antennas etc) must be at least 50 vertical feet below a significant ridgeline (designated by

official map). A variance is required for any exception to this policy. Variance findings would include standard variance findings plus additional findings of maintaining visual integrity of ridgeline, and mitigating any adverse impacts on viewshed. *Los Angeles County Code, Title 22: Planning and Zoning.*

FORM, HEIGHT AND MASSING:

This important component of viewshed protection is challenging in that can be more subjective than more quantitative criteria. Nonetheless, a well designed, proportioned house can blend in well into its backdrop regardless of size.

Los Gatos: The maximum allowed height for homes in hillside areas is 25 feet. In addition, the maximum vertical differential between the lowest elevation along the building's perimeter to the highest part of the building is 35 feet. Buildings that extend above a ridgeline or that are visible from a viewing platform have a maximum height from the lowest to highest points of 28 feet. Ridgeline and visible homes cannot extend more than 18 feet above the existing grade. Elevations that appear as three stories from downslope vantage points are prohibited.

Qualitative standards and guidelines encourage simpler building forms and avoiding architectural styles that are "inherently viewed as massive and bulky." Building foundations and roofs should step with the natural slope, and buildings should be set into excavated slope. A thoughtful balance of horizontal and vertical components should be used to reduce apparent bulk, and to avoid massive two-story wall planes on the downslope face. Modest overhangs, projections, alcoves, plane offsets, and varying elevations (such as stepping back second stories) are encouraged as they create light and shadow, providing more favorable textural makeup against the natural backdrop. Story poles are required for evaluation of visibility. *Los Gatos Hillside Development Standards and Guidelines.*

Napa County: One of the required findings for certifying that a project may be reviewed at the administrative level is that the height of the structure is twenty-four feet (24') or less as measured from finished grade along fifty percent or more of the longest wall as viewed from any designated public road. In addition, roof angles and composition must be designed to conform to existing landforms and landscape to also qualify for review as an administrative project. *Napa County Zoning Ordinance, Chapter 18.106: Viewshed Protection Program.*

Telluride, CO: Encourages setting buildings into slope to reduce perceived mass and scale. Buildings should step down with slope to reduce apparent height and to avoid monolithic downslope wall. Encourages simpler building forms similar to historic buildings in town (modest rectangular forms with rectangular additions with steep gable and shed roofs). Story poles required for evaluation of visibility. *Town of Telluride Transitional Hillside Treatment Area and Transitional Hillside Overlay.*

GRADING:

Hillside development often involves significant grading and the grading for driveways, house pads and yards can often be the most visible component of a development.

Los Gatos: Standards emphasize minimal grading and avoiding the need for retaining walls. Favor cutting versus filling to set structures into hillsides and avoid larger cuts and retaining walls in front of houses where most visible. Prescribe varied, non-uniform slopes for a more natural (less “engineered”) appearance. Standards for grading quantities are specified for each site element (house, accessory building, pool, tennis/sport court, driveway, other). Has maximum allowed depths of cuts and fills in hillsides. No stated provision for exception to these standards. *Los Gatos Hillside Development Standards and Guidelines.*

San Rafael: Standards emphasize minimal grading and designing final grade to have “natural appearance” on slopes between 5:1 and 2:1. Favor cutting versus filling to set structures into hillsides and avoid larger cuts and retaining walls in front of houses where most visible. Minimize height of visible retaining walls and require natural stone or earth colored materials. Graded pads shall be of a minimum size for structures and open space (Pads for tennis courts and swimming pools are discouraged). *San Rafael Hillside Residential Design Guidelines.*

RETAINING WALLS:

Large visible retaining walls can double or triple the visibility factor of a hillside house. Along roads and driveways they can scar the landscape and destroy the natural appearance of the hillside.

City of Los Angeles: Limits height of individual retaining walls to 12 feet, or a series of two 10-foot (max) walls offset by at least three horizontal feet. Any walls taller than eight feet must be designed to be completely screened by landscaping. Discretionary exceptions possible with zoning administrator approval, and subject to visual-impact findings. Statutory exceptions include public agency projects, prior approved retaining walls and emergency repair of an imminently unsafe condition. *Los Angeles Municipal Code Subsection 12.21C8: Retaining Walls in Hillside Areas*

Clark County, NV: Limits height of individual retaining walls to nine feet and allows a series of up to four nine-foot walls for a combined 36 vertical feet. A six-foot minimum horizontal staggering of consecutive walls is required. Visible walls must incorporate native stone materials or otherwise be of low-contrasting earth-tone colors. *Clark County Municipal Code Section 30.64: Site Landscape and Screening Standards.*

LANDSCAPING:

Practical factors conspire to prevent landscaping from being a perfect solution to visual impact mitigation (especially on steep hillsides), but a well-designed landscape plan can provide some visual screening, create a more “established” look, and also frame views from the house in an aesthetically pleasing way. The County does not currently have a landscape ordinance.

Santa Cruz County: Has very comprehensive landscape ordinance that would appear well adapted to Santa Clara County’s hillsides. Encourages use of native or naturalized species and requires certain invasive species be removed. Landscape maintenance and irrigation requirements are very clear and practical. *Santa Cruz County Code Section 13.11.075.*

Woodside: Has comprehensive list of trees and shrubs suitable for woodlands and hillside areas, and identifies fire-resistant species among that list. *Town of Woodside Residential Design Guidelines.*

Los Gatos: Vegetation restoration required for all cuts and fills. “Defensible space” criteria for designing landscaping to provide fuel break for fire protection. 30-foot perimeter zone (Zone 1) immediately around house has well-watered and fire retardant foundation plantings. Secondary perimeter (Zone 2) 30-70 feet, low

plants, no trees. Tertiary perimeter (Zone 3) up to 100-200 feet of trimmed trees such that canopies are discontinuous. All landscape plans are reviewed by the Fire Department. *Los Gatos Hillside Development Standards and Guidelines.*

Telluride, CO: Specifies landscape plans must be “rough, natural and/or subdued in character.” Discourages use of exotic plants and sod. *Town of Telluride Transitional Hillside Treatment Area and Transitional Hillside Overlay.*

COLOR:

Light reflectivity value (LRV) is an objective qualitative scale measuring the relative lightness/darkness of colors, where LRV of 0 would be the darkest black, and 100 would be the brightest white. It is currently employed (LRV 60 max) in the West Valley (d₁) combining district. Except during the time the house is being built, it is difficult to implement paint color restrictions. Painting a house does not require a permit, so in the absence of a design review condition, many homeowners would have no reason to believe a paint color limitation applies to them.

Los Gatos: LRV 30 or lower. *Los Gatos Hillside Development Standards and Guidelines.*

Cupertino: LRV 60 or lower, low-contrast earth-tone or vegetation colors. *City of Cupertino Zoning Ordinance, Sec 19.40.070.*

Woodside: No LRV specified. Requires non-reflective building materials, emphasis of (or integration of) natural wood and stone, low-contrast colors that blend with the natural setting. *Town of Woodside Residential Design Guidelines.*