

**TOWN OF MORAGA
HILLSIDES & RIDGELINES STEERING COMMITTEE**

MEETING AGENDA

June 29, 2016

7:00 PM

Mosaic Room, Hacienda de las Flores, 2100 Donald Drive, Moraga

1. CALL TO ORDER

ROLL CALL

COMMITTEE MEMBERS:

Town Councilmembers Trotter and Wykle
Planning Commissioner Steve Woehleke
Frank Comprelli
John Glover
Stacia Levenfeld
Rob Lucacher

- 2. PUBLIC COMMENTS** - *Time reserved for those in the audience who wish to address the Committee. The audience should be aware that the Committee may not discuss details or vote on non-agenda items. Your concerns may be referred to staff or placed on a future agenda. Note: Public input will also be taken during each agenda item.*

3. ADOPTION OF MEETING AGENDA

4. APPROVAL OF HILLSIDES AND RIDGELINES STEERING COMMITTEE MEETING MINUTES

- December 16, 2015

5. REVIEW AND CONSIDER DRAFT AMENDMENTS TO TOWN OF MORAGA GENERAL PLAN, MUNICIPAL CODE, DESIGN GUIDELINES, AND GUIDELINES FOR IMPLEMENTATION OF THE MORAGA OPEN SPACE ORDINANCE, RELATED TO REGULATION OF HILLSIDE AND RIDGELINE DEVELOPMENT

6. ADJOURNMENT

Notices of the Hillsides and Ridgelines Steering Committee Meetings are posted at 2100 Donald Drive, The Moraga Commons, 329 Rheem Blvd and the Moraga Library. Copies of the Agenda packets can be viewed prior to the meeting at the Town Offices, 329 Rheem Boulevard. **NOTICE:** The Town of Moraga will provide special assistance for disabled citizens upon at least 72 hours advance notice to the Town Clerk's office (888-7050). If you need sign assistance or written material printed in a larger font or taped, advance notice is necessary. All meeting rooms are accessible to the disabled.

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HILLSIDES & RIDGELINES STEERING COMMITTEE**

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**TOWN OF MORAGA
Hillsides and Ridgelines Steering Committee**

Mosaic Room
Hacienda de las Flores
2100 Donald Drive
Moraga, CA 94556

December 16, 2015

7:00 P.M.

MINUTES

1. CALL TO ORDER

David Early, PlaceWorks, called the Hillsides and Ridgelines Steering Committee meeting to order at 7:00 P.M.

ROLL CALL

Present: Town Councilmembers Metcalf and Trotter
Frank Comprelli (former Planning Commissioner)
Design Review Board Member Glover
Park and Recreation Commissioner Lucacher

Absent: Stacia Levenfeld (former Planning Commissioner)

Consultants: David Early, PlaceWorks
Ben Noble, PlaceWorks

Staff: Ellen Clark, Planning Director

2. PUBLIC COMMENTS

There were no comments from the public.

3. ADOPTION OF MEETING AGENDA

Action: M/S/U (Trotter/Glover) to adopt the meeting agenda, as shown.

4. APPROVAL OF HILLSIDES AND RIDGELINES STEERING COMMITTEE MEETING MINUTES

- November 12, 2015

Park and Recreation Commissioner Lucacher asked if the Town at some future point could discuss building size on large lots and compatibility issues. He wanted the Town Council to consider a size limit for houses in the Town, and wanted to make sure that issue would be discussed at some point.

Mr. Early referenced the staff report which had indicated that the Steering Committee had not reached a consensus on that issue.

Mr. Early explained that a size limit for houses in the Town was the only issue where there had not been consensus from the Steering Committee. As a result, the issue would move forward to the Planning Commission and the Town Council with the comments from the Steering Committee since one Committee member supported the specification of a maximum area for all houses in the Town regardless of size, three more liked the approach but only applied in the hillside area, and two supported no change to the regulations.

Action: M/S/U (Metcalf/Glover) to approve the minutes of the November 12, 2015 minutes, as submitted.

5. RECOMMENDATION OF PREFERRED OPTIONS

Ben Noble, PlaceWorks, advised that a professional certified engineering geologist from Cotton Shires, the sub consultant working with PlaceWorks, was available to respond to the more technical issues of the remaining discussion of preferred options. He explained that the three remaining issues related to steep slope limitations in MOSO [Moraga Open Space Ordinance] Open Space, the High Risk Areas Map for MOSO Open Space, and remediation of high risk areas. All others had been addressed. The goal was to receive recommendations from the Steering Committee on the preferred options for the three issues, to be passed on to the Town Council in February 2016.

- Steep Slope Limitations in MOSO Open Space

Mr. Noble stated that development was prohibited within MOSO Open Space areas with an existing slope of 20 percent or more. The MOSO Guidelines had introduced the concept of average slope. The MOSO Initiative itself was silent on that issue. When asked, he identified the language in the MOSO Initiative as prohibiting development on slopes of 20 percent or greater; the MOSO Guidelines had introduced the concept of a cell; and the cell was an area no less than 10,000 square feet where the average grade must be less than 20 percent in order for development to be allowed in that area. A cell could be all or a portion of a property.

A discussion developed on whether a cell could cross property lines. While it was noted it would not make sense for a cell to span ownerships, it was suggested that a single owner of more than one parcel could draw a cell that could cross a property line as long as the property was within the owner's control. It was clarified there was nothing in the regulation that would prohibit that practice.

Mr. Noble stated there had been a concern that some applicants had created irregular cell boundaries in order to achieve an average existing slope of less than 20 percent and be able to develop within MOSO Open Space. Concerns had also been expressed for how to treat specific areas within a cell with an average slope overall of less than 20 percent that might include steeper slopes of greater than 20 percent, which was the issue and a question in need of clarification.

Mr. Early suggested the discussion should determine whether the concept of a cell was the appropriate way to address the issue.

To address that concern, Mr. Noble stated that four options had been drafted as discussed at the public workshops as well as the open town hall survey. The options had assumed that the cell concept would be maintained. The first option would create a general policy statement for cell boundaries that would live within the MOSO Guidelines, such as the cell should be a regular shape that generally surrounds the area of disturbance and it would be up to Town staff and the decision makers to decide if the cell, as drawn by the applicant, was consistent with that general policy statement. The second option would be more prescriptive and would create an objective standard for cell boundaries, such as a polygon of no more than four sides that contains the area of disturbance. The third option would keep the cell concept but would get at the issue of whether or not within a cell of an average slope of less than 20 percent development should be allowed in a portion of the cell that had a higher/steeper slope of greater than 20 percent, and in those areas within the cell development would be prohibited in all cases. The fourth option would eliminate the use of the cell entirely to calculate average slope, which while within the MOSO Guidelines was not a concept in the MOSO Initiative, and any portion of a development site with a slope of 20 percent or greater development is prohibited, not taking into consideration an average slope of a development site, or cell.

Mr. Noble reported that at the workshop and through the open town hall there was majority support, although not unanimous, to eliminate the use of the cell to calculate average slope, and general majority support for the idea that within any portion of a development site within a slope of 20 percent or more development should be prohibited.

Mr. Noble advised that PlaceWorks had come to the conclusion that the Town would be best served to consider a range of factors on a development site, not just slope, in terms of deciding the preferred location for new development. For that reason, the first part of the recommendation would be to maintain the concept of average slope which was not in the MOSO Initiative but was in the MOSO Guidelines, to be used to comply with the MOSO requirement to prohibit development on slopes of 20 percent or greater. The main idea in the first part of the recommendation, which he noted was somewhat controversial and different from the majority of the opinion received from the public, was that retaining the average slope served the Town best in order to provide the flexibility to consider a range of factors given the concern that if development was always prohibited within a slope of 20 percent or more could force development in areas less geographically stable, or in areas with an issue of visibility, sensitive habitat, or other factors of importance.

Mr. Noble explained the question then was if the Town were to retain the concept of average slope what would be the area used to calculate that average slope. To address that question, he recommended the elimination of the concept of a cell, as currently defined in the MOSO Guidelines, and instead having an applicant calculate average slope for the area of grading disturbance contained within the boundaries of the grading plan. If the existing average slope was 20 percent or greater within that area, development would be prohibited.

A discussion developed on how that would work in a number of different scenarios. Mr. Early explained that the basic concepts, once approved, would be expanded with actual rules.

Councilmember Metcalf expressed concern for, and wanted to, avoid unintended consequences.

Mr. Noble stated that PlaceWorks approach had been to establish three categories of slope with different rules that would apply to each. An applicant would be required to develop a slope category map of the development site based on minimum two-foot contours. He offered an example for the Painted Rock property and explained that depending on the slope category different rules would apply. In the 20 to 25 percent category, it was recommended that development be prohibited in those areas unless the Planning Commission could make certain findings, such as minimizing risk from geologic hazards, minimizing the amount of grading, conforming to the site's natural setting, retaining the character of existing landforms, preserving significant native vegetation, or minimizing visual impacts. With a steeper 25 to 35 percent slope, the Town Council would have to make certain findings with more stringent limitations. With slopes greater than 35 percent, all development would be prohibited except in unique circumstances where grading might be required for landslide repair, slope stabilization or other circumstances necessary to abate a serious and immediate public hazard.

Councilmember Trotter suggested the problem would be that the language of the MOSO Initiative prohibited development on slopes greater than 20 percent or more. As a result, the PlaceWorks recommendation would be contrary to the express language passed by the voters in the MOSO Initiative, which would require approval by the voters. While he agreed with the general consensus that doing slope calculations on an area-wide basis was prone to abuse and should not be allowed, he provided the history of why the average slope concept had been devised and explained the first time the guidelines had been applied was to the Palos Colorados project. He suggested the recommended proposal would move away from a fairly straightforward approach to the issue. With respect to allowing slope stabilization, while he agreed it was probably necessary he suggested it should not be used as a way to get around the prohibition in MOSO for development on slopes greater than 20 percent.

Commissioner Lucacher supported appropriate measures to ensure that developers could not game the system.

In response to Councilmember Metcalf, Mr. Early stated that even though MOSO stated there would be no development on slopes greater than 20 percent, there had been a precedent with the creation of a system of cells, and once the cell had been created, there was an average slope within the cell, and the Town had ended up allowing grading and development in areas with slopes greater than 20 percent because of averaging. Because it had been done in the past, PlaceWorks suggested there were justifiable reasons to do it in that it was important to maintain a system that allowed some flexibility while still meeting the letter of the law reading an average of 20 percent.

Councilmember Trotter suggested the cells provided direction with the right topographic maps and gave the decision makers the ability to discuss the envelope within the cell.

Councilmember Metcalf asked if the calculation of the average slope would be over the area of intended grading or the limits of the lot.

Mr. Early stated it could be done by the cell and by the proposed lot, although another way would be to do it on the basis of the contour line. He presented a map that had been prepared based on the two-foot contour where the slope was to be calculated between the two-foot contour line, and the slope would change from contour line to contour line.

When asked by Councilmember Trotter, Mr. Early clarified the proposal using the map that had been provided as an example.

PUBLIC COMMENT

Dave Bruzzone asked why a property owner should be prohibited from using the cell concept, and suggested a tremendous amount of brain power was being expended to keep someone from getting an extra lot.

In response, Mr. Early summarized the discussion and the implication that it was okay to have a cell as big as one, two, or three acres, with averaging, which had been done in the past. He noted another point of view from members of the Steering Committee to limit the cell to no bigger than an average lot or an average building site. He suggested potentially calculating slope on a contour basis.

Mr. Bruzzone suggested it would be confusing and difficult for anyone reading the policy to understand it and to implement it. Using contours, he suggested there would be no way to go across.

Mr. Early stated that if pursuing the third approach, nothing over 20 percent (using contour lines) could be developed. The suggested approach was that there could be some rules allowing, under exceptional circumstances and findings, to go beyond a 20 percent slope.

Mr. Bruzzone asked how to get between the cells.

An unidentified speaker supported the recommendation but questioned the absolute law of MOSO and noted the different interpretations and evolution of MOSO over the years. She suggested there was and should be leeway, and emphasized the concerns when necessary remediation was not allowed. She supported some leeway for the betterment of the Town, not looking to the letter of the law but working with the law to make it better for the whole. Having attended most of the public meetings and referring to the rating system 1-4 that had been used in the public process, she stated the ramifications of that rating system had not been made clear to the public, and suggested the public should have been better informed of those ramifications if some of the options were approved.

Commissioner Lucacher asked if there was a way to set up a decision where a property would have a special public good or public attribute that would qualify it for a managerial approval in the 20 to 25 percent, 25 to 35 percent, or over 35 percent slope categories.

Suzanne Jones stated that an exception had already been included in that the definition of development explicitly excluded work necessary to protect public health and safety, and if work needed to be done for that purpose it was not considered to be development. Her main concern was that whatever the Town adopted needed to faithfully execute the law passed by the voters unless going back to the voters with a new proposal.

Ms. Jones commented that in the early days the slope averages had been calculated in such a way to be more consistent with the outright prohibition voters had passed on slopes greater than 20 percent, and over the years it had gradually evolved into a completely different thing. She referred to the Hetfield Estates and Rancho Laguna II developments where the total average slope had been calculated over the whole grading footprint. She suggested the problem was the allowance for arbitrarily large areas that would set up a situation where there would be no compliance with what the voters had passed, and giving the developer incentives to include flat areas within that graded area encouraged more credit towards development on steep slopes, which she stated was contrary to the intent of prohibition on the development on steep slopes.

Councilmember Metcalf supported some flexibility but sought something rational.

Councilmember Trotter stated that when the voters of Moraga thought about development in the concept of MOSO, they talked about rooftops and about houses, and it was important to make sure that where the rooftops, the swimming pools, the backyards, and accessory structures were located the average slope for the area be under 20 percent in its native condition, which would do a sufficient job to meet the MOSO Initiative enacted by the voters. He suggested it had to be on an average slope basis, and there had to be a rational way to calculate the average slope over an area that could not be too big, but be on an envelope-by-envelope basis to mimic where the houses would be, which would clean up the ambiguities.

Mr. Early clarified the discussion and desire to follow the law without using an arbitrarily large area by which cells would be calculated; to calculate the slope area using something like what used to be called a cell and was actually more like the 'building envelope;' with a definition of building envelope to be anywhere where there was building, landscaping, development or the area in between; the slope of that building envelope had to be 20 percent or less given the letter of the law; to be done on an average slope basis as opposed to point-by-point; and with every building envelope to be measured individually and not as a group.

Boardmember Glover suggested there would be parts of a subdivision that would not be buildable.

Mr. Early clarified that the Steering Committee wanted to see an average slope of 20 percent or less calculated for every development envelope, and that developers must

follow all the other rules as well. From a perspective of slope only, the slope in a development envelope, assuming one house per lot, had to be 20 percent or less. He clarified that would be for a legal parcel that would accommodate a single house, and in the case of a second unit, the average slope of that entire development envelope had to be 20 percent or less, with a calculation for each lot.

On the question of roadway grading in that calculation, Mr. Early suggested that would have to be addressed in the next more detailed round of discussions. He restated the proposal that any development would have to identify a series of development envelopes, one per lot, and the slope would be calculated for that development envelope, each one individually, and every one of those individual development envelopes had to be 20 percent or less.

Ms. Jones recommended that the cell or development envelope had to be 10,000 square feet minimum, potentially irregularly shaped, strung together, a series of 20 percent or less 10,000 square foot cells, to cover all grading and all development of any kind, which would be true enough to the intent of the ordinance that she would not quibble if there was a portion within that 10,000 square foot area that was greater than 20 percent.

On the question of larger parcels, Mr. Early noted there could be a development envelope greater than 10,000 square feet. He suggested that could be counted as a single development envelope which had to be under 20 percent. A scenario for a development envelope at 12,000, 15,000, or 20,000 square feet would have to be calculated as a single development envelope, to be under 20 percent slope. The larger development envelope would have to be broken into two cells with each of the two cells to be under 20 percent. He clarified it would be a single development envelope but comprised of 10,000 square foot building envelopes. He proposed to keep the regulation that there had to be at least one cell per envelope. He suggested that PlaceWorks be directed to work on that scenario and to take it back to the Planning Commission for review.

There was a general consensus amongst Steering Committee members to move in that direction without further defining that direction at this time.

- High Risk Areas Map for MOSO Open Space

Mr. Noble noted that the item had to do with the development capability map and the preliminary determination of high risk areas as established in the MOSO Guidelines. He stated the MOSO Initiative identified high risk areas as places within MOSO Open Space where density is limited to one unit per 20 acres. He reported that Exhibit D adopted in 1989, established preliminary determination of high risk areas, divided the entire Town into quadrants, and used a formula and methodology to establish a preliminary determination of high risk areas. There had been issues since the preliminary determination map did not always correspond to the findings of site specific geological studies. Cotton Shires had prepared a landslide hazard map of certain areas in Town where some important discrepancies had been found between the development capability map and the landslide hazard map conducted by Cotton Shires, which had raised questions as to the usefulness of the existing development capability map as a tool to establish the preliminary determination of a high risk area.

Mr. Noble identified three options to consider: to continue using the existing development capability map and acknowledge its limitations; to develop a new and improved development capability map; or to discontinue the use of the development capability map entirely to eliminate the concept of preliminary risk determination from the MOSO Guidelines and approach it on a case-by-case basis to determine which areas were high risk areas.

Councilmember Trotter noted that the public had opined on the preference to develop a new map in line with the 21st Century.

Mr. Noble stated that was PlaceWorks recommendation as well; to prepare a new map in line with the 21st Century.

Ms. Jones supported the elimination of the old map.

Mr. Early acknowledged the recommendation from the Steering Committee to prepare a new map in line with the 21st Century.

- Remediation of High Risk Areas

Mr. Noble stated the question was if remediation occurred within a high risk area whether it could be reclassified to no longer be high risk and therefore be developed at a higher density of 1 unit per 10 acres or 1 unit per 5 acres. It had been the Town's practice to allow that where remediation had occurred. The question was whether that practice should continue. He identified three options: to conditionally allow increases to residential density as a result of remediation; to prohibit remediation if for the sole purpose of increasing residential density; or to prohibit any increase in residential density in high risk areas even if remediation had occurred.

Mr. Noble identified the majority, though not unanimous support, for prohibiting any increase in residential density in high risk areas. PlaceWorks recommended continuing to allow increased density in high risk areas where remediation did not involve mass grading techniques. He noted at the workshops, the online survey, and through the focus groups, the public had been very concerned about the appearance of disruption to the natural landscape. If the natural terrain was maintained or if disturbance to the site was minimized to not be offensive, would be more acceptable.

Mr. Noble presented the recommendation to allow increased density in a high risk area with remediation as long as it did not involve mass grading techniques, and only if done with non-invasive remediation techniques. He noted the questions related to shallow and deep landslides and their treatment, and stated PlaceWorks recommended the remediation for shallow and deep landslides as long as the final stable slope conditions were achieved.

Mr. Noble identified a recurring theme for the ability of the Town Council to approve exceptions to the mass grading limitation if it would provide a substantial public benefit to address a substantial public hazard.

Ted Sayre, professional certified engineering geologist from Cotton Shires, explained that mass grading was essentially bringing in equipment and removing all vegetation cover, the trees, the native animals and everything else, gutting the slope down to some stable subgrade, and rebuilding it, usually with a sub drain system at the bottom, to stabilize ground. He commented that grading out landslide terrain was the least expensive approach to stabilizing ground.

There was a discussion of identifying the level of grading illustrated in the photos presented as part of the discussion, which was later called mass grading.

Mr. Bruzzone suggested the illustration provided represented a very restrictive condition under remediation for a high risk area, which was a concern to him given that he did not believe the illustration represented anything more than a localized repair.

Councilmember Metcalf suggested that taking out a hillside to rebuild it would be mass grading. He referred to several developments in Town where that type of mass grading had occurred, not in repair, but in the development of building pads.

Mr. Early stated the opposite of that grading technique was called non-invasive subsurface techniques.

Mr. Sayre described those non-invasive subsurface techniques through the use of stitch piers and commented that if the Steering Committee wanted to explore those types of techniques he could provide an actual diagram. When asked, he stated that once slides became steeper than 25 or 30 percent the feasibility of those types of approaches declined.

Councilmember Metcalf suggested that the public would have to be convinced that those types of techniques would work if done right.

PUBLIC COMMENT

Ms. Jones suggested that stitch piers worked. She noted that the bigger issue was what the voters had passed. She read the policy adopted by the voters as “Areas identified as high risk areas as defined in this ordinance shall be limited to a maximum density of one dwelling unit per 20 acres.” She stated that meant if an area was identified as high risk it would be 1 in 20. She suggested that was much better than mass grading, should be done any time it was feasible, although density increases would not be allowed on high risk land. When asked to read the paragraph previous to that statement which defined high risk, she read that “The Town Council shall identify high risk areas after taking into account soils stability, history of soil slippage, slope, grade, accessibility, and drainage conditions.” She stated the Town had made some determination about what areas were high risk according to that criteria, and once designated those areas were restricted to 1 in 20, while anything not high risk could be developed at up to 1 in 5 acres. The ordinance did not include references to remediation or reclassification to what the voters had passed. She emphasized the intent of the ordinance to preserve open space and limit development in specific MOSO areas.

Mr. Bruzzone suggested the Town was opening itself up to a lawsuit, and questioned whether the Town Council could preempt rational, reasonable analysis of a site and determine whether the previous development capability map identified a high risk area and not support with any evidence, limiting property owners to geotech solutions by precluding so-called mass grading. He suggested there were certain cases where grading was necessary, stitch piers were not the optimum solution in all cases, and he objected to precluding the options available that could remediate and allow someone to build on their property. He suggested the soil and hillside could be returned to a natural condition or an even better condition than an existing situation.

An unidentified speaker noted that she lived on Hetfield Place. She referred to a nearby house that had been impacted by heavy rains where mass grading was required and which had worked well in that case. In relationship to the remediation of land, it was her experience that landslides on the Painted Rock property could again occur given the heavy rain cycles.

The unidentified speaker did not want to create a situation where those kinds of situations could not be repaired, and preferred that the hills be fixed by developers who would not likely fix land without receiving a bonus residential use. She did not want dangerous land to be left unrepaired.

Mr. Early summarized the options under discussion, explaining that the most restrictive would be that once the land was designated in the high risk map it could not be changed, and once mapped it would remain at one unit per 20 acres. The middle proposal would allow the land a change in status, and a change in status would be allowed provided it was done through non-invasive, non-mass grading techniques. The third proposal from the audience would allow an increase in density for the land coming out of being a high risk area under any condition if remediation occurred, even if that involved mass grading, and a higher density should be allowed since that would create an incentive for repair.

Councilmember Trotter suggested moving forward with the strict interpretation that had not been recommended as one potential option, and alternatively the recommendation set forth by PlaceWorks to allow the options to be fully vetted before the Town Council.

Mr. Early suggested a straw vote on all three of the items.

Councilmember Metcalf supported an open public discussion at the Council level to discuss the alternatives and to make the determination. He expected the Planning Commission would also provide its clear input.

Boardmember Glover suggested that the discussion of remediation was not under the purview of what was attempting to be accomplished by the Steering Committee. The intent was to define hazardous. As a result, he urged caution.

Mr. Early explained that two different examples had been shown to identify the difference between mass grading versus non-invasive techniques, simply meant as examples, given that the proposal could allow an increase in density with any kind of

grading, even mass grading, while the second proposal would allow the increase in grading with non-invasive techniques.

Councilmember Trotter suggested the question of remediation in high-risk areas was a MOSO concept definitely within the purview of the Steering Committee. He suggested it would be appropriate to get a straw poll as to whether one or more of the options could be supported.

After the straw poll, Mr. Early stated that all three options were supported by the Steering Committee to be written up in more detail, to be submitted to the Planning Commission at its meeting on January 20, 2016, and to the Town Council on February 24, 2016.

6. ADJOURNMENT

The meeting adjourned at approximately 9:00 P.M.



Meeting Dates: June 29, 2016
June 30, 2016

TOWN OF MORAGA

STAFF REPORT

To: Hillsides and Ridgelines Steering Committee

**From: Ellen Clark, Planning Director
Ben Noble, Contract Planner**

Subject: Review Draft Amendments to Town of Moraga General Plan, Municipal Code, Design Guidelines, and Guidelines for Implementation of the Moraga Open Space Ordinance, Related to Regulation of Hillside and Ridgeline Development

REQUEST

The Steering Committee is requested to provide feedback on draft amendments of various Town regulations in conjunction with the Hillside and Ridgeline project and provide a recommendation to the Planning Commission and Town Council on the adoption of these amendments, with modifications as directed by the Steering Committee.

BACKGROUND

On March 10, 2016 the Town Council held a study session to provide direction on preferred options to address key issues for the Hillside and Ridgelines Project (See Attachment K for meeting minutes). Following this meeting, and consistent with this direction, Town staff and consultants prepared draft amendments to a number of the Town's existing documents that regulate hillside and ridgeline development, including the Town of Moraga General Plan, Guidelines for Implementing the Moraga Open Space Ordinance (MOSO Guidelines), Municipal Code, and Design Guidelines

These draft amendments are attached to this staff report for the consideration of the Hillside and Ridgelines Steering Committee.

On June 29 and June 30, 2016 Town staff and consultant will request feedback from the Steering Committee on these amendments. At these meetings additional graphic materials will be presented to facilitate Committee discussion. The goal of these two meetings is to conclude with a Steering Committee recommendation to the Planning

1 Commission and Town Council, regarding adoption of the draft amendments with any
2 necessary revisions suggested by the Steering Committee.

3
4 After the Steering Committee makes its recommendation, the Design Review Board and
5 Planning Commission will meet to consider these materials and to make their own
6 recommendations to the Town Council. The Town Council will then consider the
7 recommendation from the Steering Committee, Design Review Board, and Planning
8 Commission, act on the draft amendments, and complete the Hillside and Ridgeline
9 project. Unless the Planning Commission or Town Council refers any item back to the
10 Steering Committee for further discussion, the work of the Steering Committee would be
11 complete following this current round of meetings.

12 **DRAFT REGULATIONS AND SUPPORTING MATERIALS**

13
14
15 Based on direction from the Town Council, staff and the consultant team have prepared
16 revised draft regulations and related materials that address the following key project
17 issues:

- 18
- 19 • MOSO Open Space Map
- 20 • MOSO Ridgeline Map
- 21 • High Risk Areas Map
- 22 • Definition of Development
- 23 • Hillside Development Permits
- 24 • Ridgeline Definition and Mapping
- 25 • Protecting Ridgelines and Viewsheds
- 26 • Steep Slope Limitations in MOSO Open Space
- 27 • Remediation of High Risk Areas
- 28 • Building Size on Large Lots
- 29
- 30

31 For each of these issues, the sections below present the issue, summarize Town
32 Council direction on the issue, and describe the updated draft regulations that have
33 been prepared consistent with Town Council direction.

34
35 The draft materials are attached to this staff report, with changes made to existing
36 Town regulations shown in underline and ~~strikethrough~~ text.

37 38 39 **Issue 1: MOSO Open Space Map**

40 Issue Description

41
42 Moraga's official records include several maps that show the boundaries of MOSO
43 Open Space (as defined by the voter-approved MOSO Ordinance), including Exhibit A
44 of the 1986 MOSO Guidelines, the adopted Zoning Map, and General Plan Land Use
45 Map. MOSO Open Space areas are not shown consistently on all of these maps. For
46 example, a portion of the Bollinger property is shown as MOSO Open Space in the
47 Zoning Map but is not MOSO Open Space in the General Plan and MOSO Guidelines
48 map.

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Town Council Direction:

At the March 10, 2016 meeting, the Town Council supported creating a single consistent map of MOSO Open Space consistent with the MOSO Initiative. The Town Council reviewed the draft amendments proposed to the mapping, and agreed with the approach taken with regard to how those changes should be made.

Draft Amendments:

Town staff and consultants have prepared three updated maps that show MOSO Open Space boundaries: 1) the General Plan Land Use Map (Attachment B), the Zoning Map (to be provided on June 29), and the MOSO Guidelines Exhibit A Map (Attachment D). These three maps show MOSO Open Space boundaries consistent with one another and with past amendments, including those adopted by the Town in 1998 with regard to those boundaries in Resolution 42-98

These maps revise MOSO Open Space boundaries to correspond to established property lines and reflect development patterns as they exist (e.g. established subdivision boundaries) to the extent such changes remain consistent with the MOSO Initiative and the intent of the voters when the initiative was approved.

Town staff recommends that the Steering Committee assign to the Planning Commission the role of carefully reviewing each individual change to the MOSO boundaries shown in these three maps. Town staff would then review these maps in detail with the Planning Commission, and the Planning Commission would recommend their adoption based on this review prior to review and adoption by the Town Council.

Issue 2: MOSO Ridgeline Map

Issue Description

Different Town maps that show the location of ridgelines in MOSO Open Space are not consistent. In particular, MOSO Guidelines Exhibit B shows the furthest northwest extent of Indian Ridge as a Minor Ridgeline. Maps prepared by the Town based on the definition of Major Ridgelines in the MOSO Initiative shows the full extent of Indian Ridge within Town limits as a Major Ridgeline

Town Council Direction:

At the March 10, 2016 meeting the Town Council supported designating the full extent of Indian Ridge as a Major Ridgeline.

Draft Amendments:

Included in Attachment D is an amended MOSO Guidelines Exhibit B map that shows the full extent of Indian Ridge as a Major Ridgeline. All other maps of designated ridgelines, such as the General Plan ridgeline map (Figure CD-1 in Attachment A) discussed elsewhere in this staff report, also show the full extent of Indian Ridge as a Major Ridgeline. Note that there is further discussion of the mapping of MOSO and non-MOSO ridgelines, as it relates to revised regulation of development, under issue 7, below.

1 **Issue 3: High Risk Areas Map for MOSO Open Space**

2
3 Issue Description:

4 MOSO Guidelines Exhibit D (Development Capability Map), adopted in 1989,
5 establishes a preliminary determination of high risk areas in MOSO Open Space. As
6 required by the MOSO Initiative, development in these high risk areas is limited to a
7 maximum density of 1 unit per 20 acres. Project applicants may request a final
8 determination of high risk status on a property based on a site-specific geologic study.
9 The findings of these geologic studies frequently differ from the preliminary
10 determination of high risk status in the Development Capability Map. Discrepancies
11 also were found between the Development Capability Map and landslide hazard
12 mapping prepared for the Hillside and Ridgelines project. These discrepancies call into
13 question the accuracy and usefulness of the Development Capability Map and whether
14 it should be replaced or no longer used.

15
16 Town Council Direction:

17 At the March 10, 2016 meeting the Town Council supported creating a new and
18 improved Development Capability Map to replace MOSO Guidelines Exhibit D.

19
20 Draft Amendments

21 Attachment D shows in the new Preliminary High Risk Determination Map for MOSO
22 Open Space Lands. This map will replace the existing MOSO Guidelines Development
23 Capability Map and will establish areas with a preliminary high risk area determination
24 as called for in the MOSO Ordinance. As is currently the case, project applicants may
25 request a final determination of high risk status on a property based on a site-specific
26 geologic study. Once the Town has made a final determination that an area is high risk,
27 the maximum permitted density in the high risk area is limited to 1 unit per 20 acres and
28 cannot be increased for any reason including the remediation of geologic hazards (See
29 Issue 9).

30
31 The Preliminary High Risk Determination Map is based on a weighted raster overlay
32 model and was prepared using GeoPlanner, a Geographic Information System (GIS)
33 tool. The model uses the criteria for high risk areas identified in the MOSO Initiative:
34 soil stability/landslide susceptibility, slope, proximity to streets (accessibility), and
35 proximity to streams (drainage conditions). More information on the methodology used
36 to prepare the Preliminary High Risk Determination Map is provided in Attachment D.

37
38 The area of analysis for the Preliminary High Risk Determination Map includes only
39 areas that are undeveloped, have development potential, and no existing entitlements.

40
41 In addition to the Preliminary High Risk Determination Map, staff and consultants also
42 prepared a separate Development Constraints Map (Attachment D). This map provides
43 a planning tool for the Town and applicants to identify development constraints on a site
44 and to locate development in the most suitable locations, with the expectation that such
45 constraints will analyzed in greater detail as part of the development application. Like
46 the Preliminary High Risk Determination map, the area of analysis for the Development
47 Constraint Map includes only areas that are undeveloped, have development potential,
48 and no existing entitlements. The area of analysis for this map includes MOSO Open

1 Space lands and non-MOSO lands, so this map is a tool that applies Town-wide, not
2 only in MOSO lands.

3
4 Like the Preliminary High Risk Determination Map, the Development Constraints Map is
5 a weighted raster overlay model prepared using the GeoPlanner tool. Criteria used to
6 prepare this map include the same criteria as the used for the Preliminary High Risk
7 Determination Map, but include a number of additional criteria, specifically: ridgeline
8 proximity, flood hazards, wildfire hazards, vegetation, and visibility from scenic
9 corridors. More information on the methodology used to prepare the Development
10 Constraints Map is provided in Attachment D).

11 12 **Issue 4: Definition of Development**

13 14 Issue Description

15 There are minor differences in the definition of “development” in the MOSO Guidelines,
16 General Plan, and Municipal Code. This definition is important because in MOSO and
17 elsewhere in Town regulations “development” is prohibited or restricted in certain
18 hillside and other areas. The Town needs one standard definition of development used
19 consistently in all Town regulations.

20 21 Town Council Direction

22 At the March 10, 2016 meeting the Town Council supported standardizing the existing
23 definition of development that appears in the MOSO Guidelines, General Plan, and
24 Municipal Code. The Town Council also supported clarifying exceptions to development
25 prohibitions in the Town’s existing definitions of development.

26 27 Draft Amendments

28 The General Plan amendments (Attachment A), the MOSO Guidelines amendments
29 (Attachment C), and the Zoning Ordinance amendments (Attachment E) all contain the
30 following consistent definition of development:

31
32 *“Development means the placement, discharge or disposal of any material; the*
33 *grading or removing of any material; the change in the density or intensity of use*
34 *of land; the subdivision of land; or the construction or erection of a structure.”*

35 The three “exceptions” or instances where development may be allowed that are
36 currently embedded in the definition of development have been moved out of the
37 definition and addressed as new policies OS1.8 and OS1.9 in the General Plan Open
38 Space Element and in MOSO Guidelines Section III.A.1.b.

39
40 New General Plan policy OS1.9 also identifies more precisely when the Town may
41 approve a road that crosses a ridgeline and what a “road” and “crossing a ridge” means
42 in the context of this policy.

1 **Issue 5: Hillside Development Permits**

2
3 Issue Description:

4 A Hillside Development Permit (HDP) is required to “clear, construct upon, or alter” land
5 with a slope of 20 percent or greater. The HDP requirement is included in Municipal
6 Code Chapter 8.136, and was one of the original zoning chapters carried over from the
7 Contra Costa County Code when the Town incorporated. Many of the provisions of this
8 chapter pre-date the adoption of more recent regulations including the MOSO Initiative,
9 Design Review/Design Guidelines, and the Grading Ordinance. There is a need to
10 consider if the Town should modify the Hillside Development Permit requirement given
11 the other regulations and permit requirements that also apply to hillside development
12 projects. The Town also needs to consider if HDPs should continue to be required for
13 minor projects such as small retaining walls, small accessory buildings, or additions on
14 developed single-family lots.

15
16 Town Council Direction

17 At the March 10, 2016 meeting the Town Council supported eliminating the Hillside
18 Development Permit requirement provided it can be shown that the regulatory
19 protections offered by the HDP are adequately provided by other permits.

20
21 Draft Amendments

22 The draft Zoning Code amendments (Attachment E) show the elimination of Chapter
23 8.136 from the Zoning Code and the removal of one reference to Chapter 8.136 found
24 elsewhere in the Zoning Code.

25
26 Discussion

27
28 After further discussions with the Town Attorney, staff and consultants determined that
29 the Town would be best served by improving rather than eliminating the Hillside
30 Development Permit process.

31
32 Attachment E contains a new Chapter 8.136 (Hillside Development) to replace the
33 existing Chapter 8.136 (Slope Density). This new chapter defines the permit
34 requirements for approval of more significant hillside development projects, which is
35 either a Hillside Development Permit for projects that don’t require any other
36 discretionary permit, or a requirement that special hillside development findings must be
37 made, in addition to other required findings, for projects that require other discretionary
38 permits such as use permits and tentative maps. This approach is intended to ensure
39 that the Town maintains maximum discretion over significant hillside development
40 projects while clarifying the Town’s requirements for approving hillside development and
41 avoiding unnecessarily duplicative processes.

42
43 **Issue 6: Non-MOSO Ridgeline Definition and Map**

44
45 Issue Description:

46 Moraga’s General Plan defines “Major Ridgelines” and “Minor Ridgelines” in MOSO
47 Open Space and identifies the locations of these ridgelines, but does not contain a
48 general ridgeline definition that applies town-wide. Because of this, some believe that

1 Town policies to protect ridgelines from development do not apply to non-MOSO
2 ridgelines, or that those policies apply in different ways. There is the need to establish a
3 town-wide ridgeline definition and clearly identify the location of these ridgelines.
4

5 Town Council Direction

6 At the March 10, 2016 meeting, the Town Council considered two possible definitions
7 for Significant Non-MOSO Ridgelines: 1) all ridgelines outside of MOSO Open Space
8 visible from any public place, including trails, and 2) ridgelines visible from a scenic
9 corridor. Staff expressed concern that defining significant ridgelines visible from all
10 public places would result in excessive restrictions placed on ridgelines that do not
11 contribute substantially to the visual quality and character of the Town. The Town
12 Council directed staff to consider these two possible definitions of Significant Non-
13 MOSO Ridgelines when preparing draft amendments for the Steering Committee's
14 consideration.
15

16 Amendments

17
18 Based on a recommendation from the Town Attorney, staff and consultants have added
19 the following Non-MOSO ridgeline definitions to the General Plan (Attachment A) and
20 Zoning Code (Attachment E):
21

22 *A Significant Non-MOSO Ridgeline* means the ridgelines shown as a Significant
23 Non-MOSO Ridgeline in General Plan Figure CD-1.
24

25 *An Other Non-MOSO Ridgeline* means the ridgelines shown as an Other Non-
26 MOSO Ridgeline in General Plan Figure CD-1.
27

28 Defining Non-MOSO ridgelines in this way makes it clear that the Significant and Other
29 Non-MOSO Ridgelines are only those shown in Figure CD-1, and will avoid
30 disagreements over whether other ridgelines should be considered Significant based on
31 an interpretation of a subjective definition.
32

33 As shown in Exhibit A, Figure CD-1 shows Significant Non-MOSO Ridgelines as the
34 centerline or crest of a ridge located outside of the MOSO Open Space designation
35 where the crest is 800 feet or more above mean sea level, or is the continuation of a
36 crest 800 feet or more above sea level, and constitutes a prominent landscape feature
37 visible from public places within the surrounding area. *Other Non-MOSO Ridgelines* are
38 ridgelines outside of MOSO Open Space that meet these same elevation requirements
39 and are designated as a Significant Non-MOSO Ridgeline.
40

41 At the Steering Committee meeting, staff and consultant will review each ridgeline with
42 the Committee and discuss which designation should apply. Staff and consultants will
43 present photographs and a 3D fly-through mapping software to facilitate this discussion.
44

45 As shown in Figure CD-1, staff and consultants have designated as Significant Non-
46 MOSO Ridgelines the portion of Rheem Ridge on the Painted Rock property, the
47 Painted Rock spur ridges on the south hill face, and the continuation of Sanders Ridge
48 south of Saint Mary's College. Of the ridgelines outside of MOSO Open Space above

1 800 feet, staff and consultants believe these best qualify as a ridgelines that constitutes
2 a prominent landscape feature visible from public places within the surrounding area.
3
4

5 All other ridgelines outside of MOSO Open Space, where all or a portion of the ridgeline
6 is above 800 feet, are designated as Other Non-MOSO Ridgelines. This includes all
7 ridgelines in the Bollinger Study and the ridgeline south of Sanders Ridge. In some
8 cases these ridgelines extend to a 700 foot elevation, and in others they stop at the
9 property line of a developed parcel.
10

11 This draft ridgeline map reflects an effort by staff and consultants to approach the
12 designation of ridgelines outside of MOSO Open Space in a similar manner to the
13 MOSO Ridgeline designations. For example, a two-tiered approach to designating
14 ridgelines is used for both MOSO and Non-MOSO ridgelines.
15

16 At the June 29, 2016 meeting, the Steering Committee may wish to apply alternative
17 designations to Non-MOSO ridgelines and to consider which, if any, spur ridges and
18 other features should be designated as a ridgeline. Staff and consultants will provide
19 visual materials at the meeting to assist the Committee consider these issues.
20

21 **Issue 7: Protecting Ridgelines and Viewsheds**

22

23 Issue Description:

24 General Plan Policy CD1.5 calls for the Town to “protect ridgelines from development.”
25 It is unclear how this policy applies to ridgelines outside of MOSO Open Space, if at all.
26 There is disagreement over what “protect” means and which ridgelines are afforded
27 these protections.
28

29 In addition, Moraga’s General Plan and Zoning Code identify several roadways in
30 Moraga as scenic corridors. General Plan Policy CD1.3 calls for the Town to “protect”
31 viewsheds along these scenic corridors. It is unclear what “protect” means in the
32 context of proposed projects located in visually prominent hillside areas as viewed from
33 scenic corridors.
34

35 Town Council Direction

36 At the March 10 meeting, the Town Council supported revising General Plan Policy CD-
37 1.5 and other policies to more precisely describe the Town’s policies relating to
38 development on and near ridgelines. The Town Council supported establishing new
39 standards to ensure that an adequate visual separation is provided between the top of
40 new development and the ridgeline. The Town Council also supported revising the
41 Town’s Design Guidelines to improve and expand existing design guidelines related to
42 hillside and ridgeline development.
43

44 Draft Amendments

45 The draft General Plan amendments (Attachment A) contain a new goal and related
46 policies (CD8) focused exclusively on protecting hillsides and ridgelines. These policies
47 replace existing policy CD1.5 (although incorporate the concepts included in CD 1.5)

1 and are intended to establish basic community desires related to hillsides and ridgelines
2 as expressed at project workshops and meetings.

3
4 Zoning Code amendments (Attachment E) replace the existing Chapter 8.128
5 (Ridgeline Protection) with new and expanded provisions that would apply to both
6 MOSO and Non-MOSO ridgelines. This chapter references the ridgeline map in the
7 General Plan and establishes a 200-foot development buffer from the centerline of any
8 Significant Non-MOSO Ridgeline. The new Chapter 8.128 also requires that at least 35
9 percent of the perceived vertical height of the hillside as observed from a scenic corridor
10 remains visible above a structure, but does allow for the Council to grant an exception
11 to this standard if compliance would deny an applicant all reasonable economic use of
12 the property.

13
14 The new standards in Chapter 8.128 for Significant Non-MOSO ridgelines reflects
15 direction from the Town Council as well as the results of studies to test different options
16 for standards on two hillside locations with different slope characteristics.(Attachment I).
17 The studies tested several different visual separation standards, including horizontal
18 buffers, vertical separation, vision planes, and view cone standards. The studies found
19 that due to variability of slope and other conditions on hillside sites, a strict numerical
20 standard applied to all locations may preclude any reasonable development and/or fail
21 to achieve the intent of maintaining an adequate visual separation between the top of
22 homes and the ridgeline behind. For those reasons, staff recommends for Significant
23 Non-MOSO Ridgelines establishing 1) a basic horizontal buffer requirement similar to
24 Major MOSO Ridgelines, and 2) supplementing the buffer with an “outcome-oriented”
25 standard that requires an applicant to demonstrate that a project will conform to the 35
26 percent visible hillside requirement. The advantage of this approach is that provides the
27 Town certainty that the new standards will achieve the intended results, along with the
28 flexibility to grant an exception if full compliance with the standard is truly infeasible.
29 The disadvantage is that applying the standard involves more subjectivity than a strict
30 numerical standard and could result in disagreements over how to demonstrate that a
31 project complies. However, given the shortcomings of purely quantitative standards,
32 staff believes the recommended approach would most likely deliver outcomes
33 consistent with the Town Council’s direction.

34
35 In addition to the new General Plan policies and Zoning Code standards, Town staff and
36 consultants have also prepared new design standards and guidelines for hillside
37 development in the Town’s Design Guidelines (Attachment G). Unlike the existing
38 Design Guidelines, these new provisions include mandatory standards as well as
39 advisory guidelines. Standards are measurable, objective rules similar to height,
40 setback, and other development standards in the Zoning Code. Project may deviate
41 from these standards only with a variance or if an exception is specifically allowed.
42 Guidelines provide direction on the more qualitative aspects of a project and may be
43 interpreted with some flexibility. A guideline establishes a design objective and allows
44 for alternative approaches to achieve this objective. The Town may grant an exception
45 to a guideline in accordance with the process described in the Design Guidelines.

46
47 The Steering Committee, Planning Commission, and Town Council have previously
48 requested that the Town Attorney review new regulation to determine if they may

1 expose the Town to possible takings challenges from affected landowners. The Town
2 Attorney has reviewed the draft amendments and based on an initial review does not
3 believe that the amendments would raise takings concerns, in part due to the ability for
4 the Town Council to grant an exception to the 35-percent hillside visibility requirement
5 for Significant Non-MOSO Ridgelines. The Town Attorney is continuing to review the
6 regulations in depth, and may suggest some additional refinements before the draft
7 regulations are finalized for Planning Commission and Town Council review.

8
9 The draft amendments also address the issue of development within scenic corridors
10 impacting views of distance hillsides. Within the Zoning Code (Attachment E) a new
11 development guideline is added to Section 8.132.050 requiring buildings to be located
12 and designed to maintain views of distant hillsides while allowing for an appropriate
13 intensity of development consistent with the intent of the applicable zoning district and
14 General Plan designation. Staff and consultants believe that a qualitative statement
15 such as this is preferable to revising specific setback requirements for the scenic
16 corridors. To be done correctly, such an effort would require additional detailed study
17 beyond what is possible as part of the Hillsides and Ridgelines project.

20 **Issue 8: STEEP SLOPE LIMITATIONS IN MOSO OPEN SPACE**

21 Issue Description

22 In MOSO Open Space, development is prohibited in areas with an average existing
23 slope of 20 percent or more. There is concern that some applicants circumvent the
24 intent of this limitation by calculating average slope for a very large or irregularly shaped
25 area (“a cell”). The Town also needs to clarify if development is allowed in particularly
26 high-slope areas within a cell if the average slope of the cell as a whole is less than 20
27 percent.
28

29 Town Council Direction

30 At the March 10, 2016 meeting the Town Council supported retaining the concept of
31 average slope, but applying it only to a more limited area or areas defined by the
32 development envelope of an individual home. With this approach, homes would be
33 permitted only within a location on a property where the average slope of its
34 development envelope is less than 20 percent. The maximum size of a building
35 envelope needs to be defined, possibly 10,000 square feet. This approach eliminates
36 the cell concept currently in the MOSO Guidelines.
37

38 Draft Amendments

39 The amended MOSO Guidelines (Exhibit X) addresses this issue with a new
40 development envelope definition to replace the cell definition (Section II.A, page 2) and
41 rules applying the new development envelope concept (Section II.C, page 5). This
42 section also limits the size of a development envelope to 10,000 square feet and
43 identifies slope limitations for streets serving multiple homes. Per the requirements,
44 each home within subdivision would have to have its own development envelope, with
45 each required to meet the 20% slope limitation standard.
46

1
2 **Issue 9: REMEDIATION OF HIGH-RISK AREAS**
3

4 Issue Description

5 Geologic hazards on a hillside site, such as landslides, can often be remediated through
6 earthmoving, excavation, and the installation of engineering structures. The MOSO
7 Guidelines allow for remediation to justify reclassification of high risk areas and allow for
8 increased residential density (to up to either 1 unit per 10 acres or 1 unit per 5 acres).
9 There is disagreement within the community over whether this practice of allowing
10 increased density in high risk MOSO areas as a result of remediation should continue.
11

12 Town Council Direction

13 At its March 10 meeting, the Town Council supported allowing repair and remediation of
14 geologic hazards in high risk areas, but to not allow increases in density as a result of
15 this remediation. Within high risk areas grading should be allowed to accommodate
16 development at 1 unit per 20 acres, to accommodate development in other areas
17 adjacent to the high risk area, to protect the community from geological hazards, and for
18 other purposes provided the grading complies with all applicable Town regulations.
19

20 Draft Amendments

21 Amendments to the MOSO Guidelines consistent with Town Council direction (i.e.
22 permanently limiting the maximum density to high risk areas to no more than one unit
23 per 20 acres) are found in Section II.D.2 on page 7 of the amended MOSO Guidelines
24 (Attachment C). Within the General Plan (Attachment A), two new policies, LU1.6 and
25 LU1.7 in the Land Use Element, also address this issue. The designation of high risk
26 status would be made based on the preliminary High Risk Areas Map (described in
27 Issue 3), as refined based on a site-specific determination. The draft amendments also
28 clarify how density for a site containing both High Risk and Non-High Risk Areas is
29 determined, and include a provision allowing for transfer of density from a high risk area
30 to a non-high risk area, within such properties.
31

32 **Issue 10: BUILDING SIZE ON LARGE LOTS**
33

34 Issue Description:

35 Moraga's Design Guidelines establish a maximum Floor Area Ratio (FAR) for single-
36 family homes for lots up to a maximum of 20,000 square feet. The Design Guidelines
37 do not establish a quantified maximum FAR for lots greater than 20,000 sf, and thus do
38 not limit the size of homes on larger lots in town, except through standards such as
39 height, setbacks and lot coverage, and qualitative guidelines such as neighborhood
40 compatibility.
41

42 Town Council Direction

43 At its March 10 meeting, the Town Council directed staff and consultants to specify a
44 maximum floor area for lots greater than 20,000 square feet using a FAR formula similar
45 to that currently used for lots 20,000 sq. ft. or less. These new limits will apply only to
46 homes in a hillside area visible from a public place, with a maximum floor area of 5,500
47 square feet on a 1-acre lot. For lots greater than 1 acre, there will be no quantified

1 maximum FAR or building size standard. Instead, building size will be regulated through
2 the Design Review Process.

3

4 Draft Amendments

5

6 Attachment H contains draft language to add to page 66 of Appendix D of the Moraga
7 Design Guidelines consistent with Town Council direction. The maximum FAR and
8 home size numbers were generated by Planning Commissioner Ferenc Kovac at the
9 request of Town staff. Figure 1 below graphs these numbers, with the x-axis showing
10 lot size and the y-axis showing building size based on the maximum permitted FAR.
11 The sudden increase in permitted building size seen in the graph occurs after the
12 20,000 square feet lot size in order to reach a permitted home size of 5,500 square feet
13 for a 1-acre lot.

14

15 **Figure 1: Maximum FAR and Home Size Limitations – 5,500 square feet maximum**
16 **home size at 1-acre lot size**

17



18

19

20 Commissioner Kovac prepared an alternative maximum FAR table and graph to
21 produce a more natural curve, shown in Table 1 and Figure 2 below. With this
22 alternative, the maximum home size would be 5,100 square feet for a 1-acre lot. The
23 Steering Committee may wish to consider these alternative numbers when considering
24 the draft amendments provided in Attachment H.

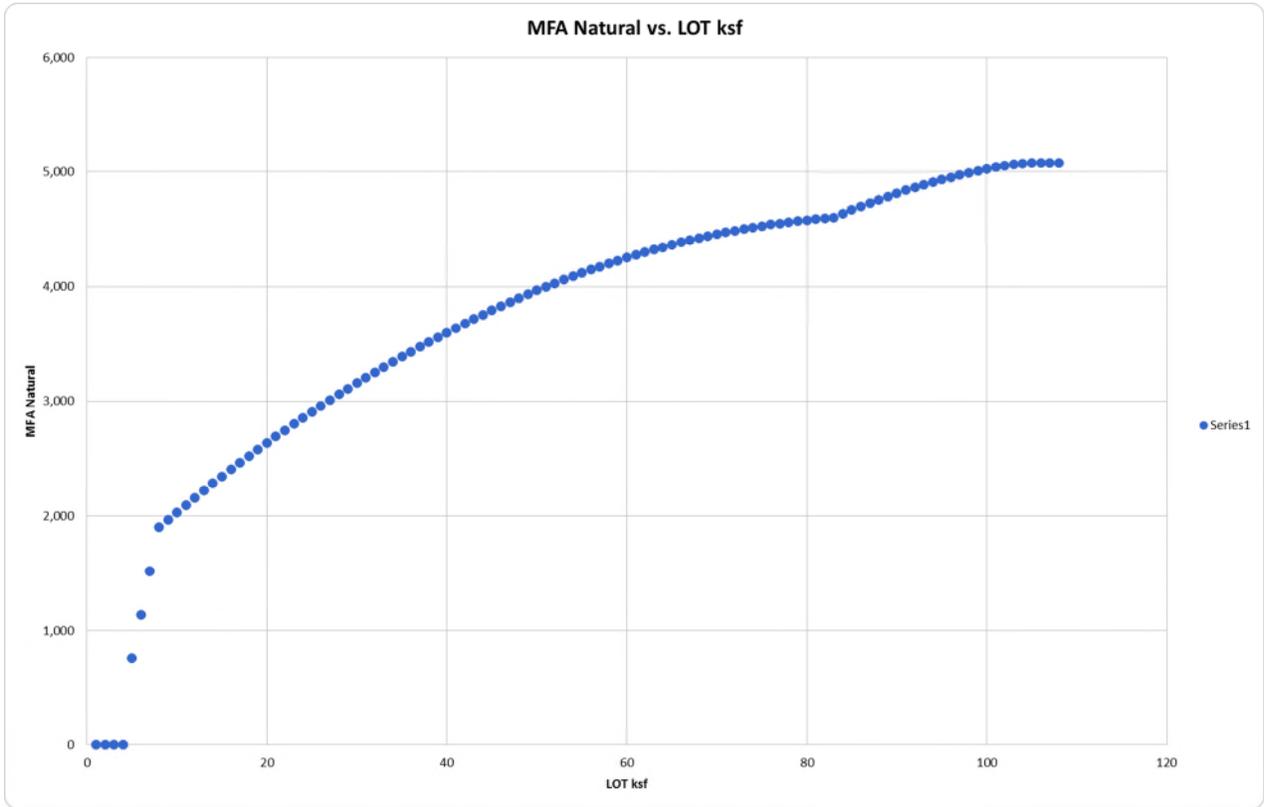
25

1 **Table 1: Alternative Maximum FAR and Home Size Limitations**
 2 **(Natural Progression to 5,100 Square Feet)**

Lot Size (sq. ft.)	FAR	Home Size (acres)
20,000	0.23	4,600
21,000	0.22	4,635
22,000	0.21	4,667
23,000	0.20	4,698
24,000	0.20	4,728
25,000	0.19	4,757
26,000	0.18	4,785
27,000	0.18	4,812
28,000	0.17	4,838
29,000	0.17	4,863
30,000	0.16	4,887
31,000	0.16	4,910
32,000	0.15	4,932
33,000	0.15	4,953
34,000	0.15	4,973
35,000	0.14	4,992
36,000	0.14	5,010
37,000	0.14	5,027
38,000	0.13	5,043
39,000	0.13	5,055
40,000	0.13	5,065
41,000	0.12	5,071
42,000	0.12	5,077
43,000	0.12	5,080
43,560	0.12	5,080

3
4

1 **Figure 2: Alternative Maximum FAR and Home Size Graph**
 2 **(Natural Progression to 5,100 Square Feet)**
 3



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Attachments

- A. General Plan Text Amendments
- B. Amended General Plan Land Use Map
- C. Amended MOSO Guidelines
- D. Updated MOSO Guidelines Exhibits (MOSO Boundaries, Ridgelines, High Risk Areas, Development Constraints, Map Methodology)
- E. Zoning Code Text Amendments
- F. Amended Zoning Map
- G. Design Guideline Amendments
- H. Maximum FAR Amendments
- I. Ridgeline Protection Standards Studies
- J. MOSO Ordinance
- K. Town Council March 10, 2016 Meeting Minutes

ATTACHMENT A

GENERAL PLAN TEXT AMENDMENTS

**ATTACHMENT A:
AMENDMENTS TO THE GENERAL PLAN**

Additions are shown in underline and deletions in ~~strikethrough~~ text.

3. LAND USE ELEMENT

LU1.6 Development Densities in High Risk MOSO Open Space Lands. After the Town makes a final determination in accordance with the MOSO Guidelines that an area in MOSO Open Space is classified as “high risk” as defined in the Moraga Open Space Ordinance, the area may not be changed from that classification as a result of any physical alteration of the area included as part of a development project. After this final determination, the maximum permitted density in the area shall remain 1 unit per 20 acres regardless of any remediation of geologic hazards that may occur on the site as part of a development project.

LU1.7 Grading Allowed in High Risk MOSO Open Space Lands. Within high risk areas in MOSO Open Space grading is allowed to accommodate development at 1 unit per 20 acres, to accommodate development in other areas adjacent to the high risk area, to protect the community from geological hazards, and for other purposes provided the grading complies with all applicable Town regulations.

Note: Existing Land Use Element policies LU1.6 through LU1.13 will remain and will be renumbered.

4. COMMUNITY DESIGN ELEMENT

~~CD1.5 — Ridgelines and Hillside Areas. Protect ridgelines from development. In hillside areas, require new developments to conform to the site’s natural setting, retaining the character of existing landforms preserving significant native vegetation and with respect to ridgelines, encourage location of building sites so that visual impacts are minimized. When grading land with an average slope of 20% or more, require ‘natural contour’ grading to minimize soil displacement and use of retainer walls. Design buildings and other improvements in accordance with the natural setting, maintaining a low profile and providing dense native landscaping to blend hillside structures with the natural setting.~~

CD8 Hillside and Ridgelines

The goals and policies in this section apply to hillside areas and ridgelines in Moraga. Hillside and ridgelines are a core component of Moraga’s unique character and are highly valued by residents as important scenic and environmental resources.

For the purpose of this section, a hillside area means either: 1) a parcel or site with an average slope of twenty (20) percent or greater; or 2) the area of disturbance of a development project with an average predevelopment slope of twenty (20) percent or greater.

Figure CD-1 shows the location of four types of ridgelines in Moraga: Major MOSO Ridgelines, Minor MOSO Ridgelines, Significant Non-MOSO Ridgelines, and Other Non-MOSO Ridgelines. Definitions for these types of ridgelines are provided in Appendix D. The term “ridgeline” as used in the policies below refers to all four types of ridgelines. A policy that applies only to one or more specific type of ridgeline is so noted in the policy.

GOAL: Currently undeveloped hillsides and ridgelines that maintain their scenic open space qualities.

CD8.1: Community Character. Ensure that development and conservation in hillside and ridgeline areas maintains Moraga’s unique semi-rural feel and scenic natural setting.

CD8.2: Open Space. Maintain currently undeveloped hillside and ridgeline areas in an undeveloped and natural state to the greatest extent possible while considering private property rights and other community goals such as economic vitality, public health and safety, and housing availability.

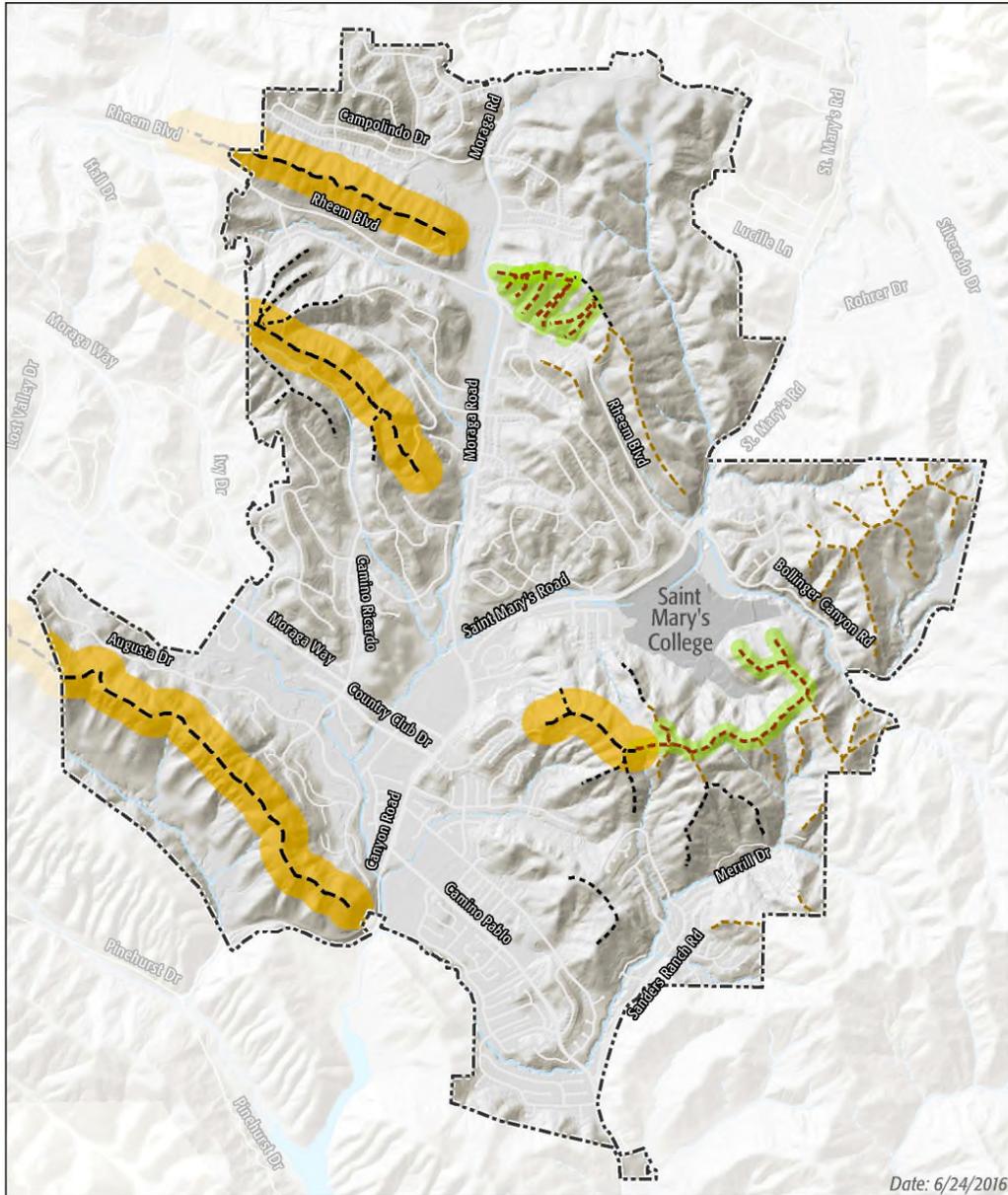
CD8.3: Public Safety. Regulate land use and development in hillside and ridgeline areas in a manner that prioritizes the protection of residents, neighbors, and the community at large from landslides, earthquakes, and other natural hazards.

CD8.4: Scenic Vistas. Ensure that new development in hillside and ridgeline areas and within the Town’s scenic corridors contributes to the preservation of Moraga’s scenic vistas and the public’s enjoyment of these vistas.

CD8.5: Hillside Development. To the maximum extent possible, require all new development in hillside areas to retain the natural character of the existing landscape uninterrupted by visible manmade features, Development shall conform to and blend with the site’s natural setting, retain and respect the character of existing landforms, preserve natural vegetation, utilize contour grading to minimize soil displacement and use of retaining walls, maintain a low visual profile, and incorporate appropriate screening using native vegetation. Development that complies with all applicable requirements for hillside development in the Town’s Design Guidelines shall be considered to comply with this policy.

CD8.6: Ridgeline Buffers. Require visual separation of new hillside development from designated Major MOSO Ridgelines, Minor MOSO Ridgelines and Significant Non-MOSO Ridgelines. The intent of this policy is to maintain both the ridgelines and the natural hillsides below them as the dominant visual features when viewed from the Town’s scenic corridors and other public places.

CD8.7: Streets Crossing Ridgeline. Allow streets to cross a designated Major MOSO Ridgeline, Minor MOSO Ridgeline, and Significant Non-MOSO Ridgelines on if the crossing is necessary for the orderly development of the Town and does not conflict with the Municipal Code and other General Plan policies.



Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USCS, 2006, 2013; PlaceWorks, 2016.

Date: 6/24/2016

- | | |
|---|---|
| MOSO Ridgelines | Non-MOSO Ridgelines |
| — MOSO Major Ridgelines | — Significant Non-MOSO Ridgeline |
| — MOSO Minor Ridgelines | — Other Non-MOSO Ridgeline |
| — 500 Foot Buffer for Major MOSO Ridgelines | — 200 Foot Buffer for Significant Non-MOSO Ridgelines |
| — Town Boundary | |

DESIGNATED RIDGELINES
FIGURE CD-1



7. OPEN SPACE AND CONSERVATION ELEMENT

OS1.2 Major Ridgelines. Moraga's major designated ridgelines are highly visible throughout the Town and are included within areas designated as MOSO Open Space on the General Plan Diagram are identified in Figure CD-1 (Designated Ridgelines).

OS1.6 Ridgeline Development – Non-MOSO Areas. Outside of MOSO Open Space lands, development is prohibited within 200 feet of the centerline of a Significant Non-MOSO Ridgeline (measured horizontally in plan view). In addition, structures must be located and designed so that a minimum of 35 percent of the perceived vertical height of a hillside as observed from a scenic corridor remains visible above a structure and below the Significant Non-MOSO Ridgeline. The Town Council may grant exceptions to this visual separation requirement (but not the 200-foot buffer requirement) in unique circumstances in accordance with criteria established in Moraga Municipal Code Section 8.128

OS1.7 Notwithstanding Policies OS1.5, and OS1.6 above, the Town may allow the following types of development on and near Major MOSO Ridgelines, Minor MOSO Ridgelines, and Significant Non-MOSO Ridgelines and in in areas with a slope of 20 percent or more:

- (1) Work necessary to eliminate or prevent a condition which is determined by the Town to be a menace to life, limb or property or adversely affects the safety, use or stability of a public way or drainage way or channel;
- (2) The establishment of a fire trail approved by the Moraga-Orinda Fire Protection District.

OS1.8 The Town may allow a road to cross a Major MOSO Ridgeline, a Minor MOSO Ridgeline, or a Significant Non-MOSO Ridgeline after finding that:

1. The crossing is necessary to provide access to the proposed development.
2. An alternative project design that would not require the crossing is infeasible.
3. The road crossing the ridgeline is designed to minimize visual impacts to the greatest extent possible and complies with all applicable Town standards and guidelines for roads in hillside areas.

For the purpose of this policy a road is considered to “cross a ridge” if it rises in elevation on one side of a ridgeline, extends over the ridgeline crest, and then descends down the hillside on the opposite side of the ridgeline. A “road” means any public or private thoroughfare constructed of any material approved by the Town that provides permanent vehicle access to abutting property or a public right-of-way. Roads may include associated and parallel pedestrian pathways, bicycle lanes or paths, sidewalks, single-use or multi-use trails, and on-street parallel parking spaces, that are an integral part of or directly adjacent to a road approved by the Town consistent with this policy.

APPENDIX D: DEFINITIONS

Development. Development means the placement, discharge, or disposal of any material, the grading or removing of any material; the change in the density or intensity of use of land; the subdivision of land; or the construction or erection of a structure. ~~Development does not include~~

~~(1) work necessary to eliminate or prevent a condition which is determined by the Town to be a menace to life, limb or property or adversely affects the safety, use or stability of a public way or drainage way or channel; (2) establishment of a fire trail approved by the Moraga-Orinda Fire Protection District; or (3) a road together with attendant underground utilities, may cross a ridge, if the Planning Commission finds that the crossing is necessary for the orderly development of the Town and does not conflict with the Municipal Code.~~

Note: Deleted items (1) and (2) above are moved to Policy OS1.5. Deleted item (3) is moved to Policy CD1.5

"Hillside area" or "hillside land" means either:

A parcel or site with an average slope of twenty (20) percent or greater; or

The area of disturbance of a development project with an average predevelopment slope of twenty (20) percent or greater.

Ridgelines. The term "ridgeline" means or more of the following, as shown in Figure CD-1:

A ~~M~~major ~~MOSO R~~ridgeline means the centerline or crest of the ridges known as Indian Ridge, Sanders Ridge, Mulholland Ridge and Campolindo Ridge, where the crest is above 800 feet above mean sea level and within an area with a MOSO Open Space designation on the General Plan Diagram. Major MOSO Ridgeline shall have the same meaning as "major ridgeline" as that term is used and defined in the Moraga Open Space Ordinance.

A ~~M~~minor ~~MOSO R~~ridgeline means the centerline or crest of any ridge other than those identified as 'major ridgelines,' where the crest is above 800 feet above mean sea level and within an area with a MOSO Open Space designation on the General Plan Diagram. Minor MOSO Ridgeline shall have the same meaning as "minor ridgeline" as that term is used and defined in the Moraga Open Space Ordinance

A ~~S~~ignificant ~~Non-MOSO R~~idgeline means those ridgelines shown in Figure CD-1 as a Significant Non-MOSO Ridgeline.

An ~~O~~ther ~~Non-MOSO R~~idgeline means those ridgelines shown in Figure CD-1 as an Other Non-MOSO Ridgeline.

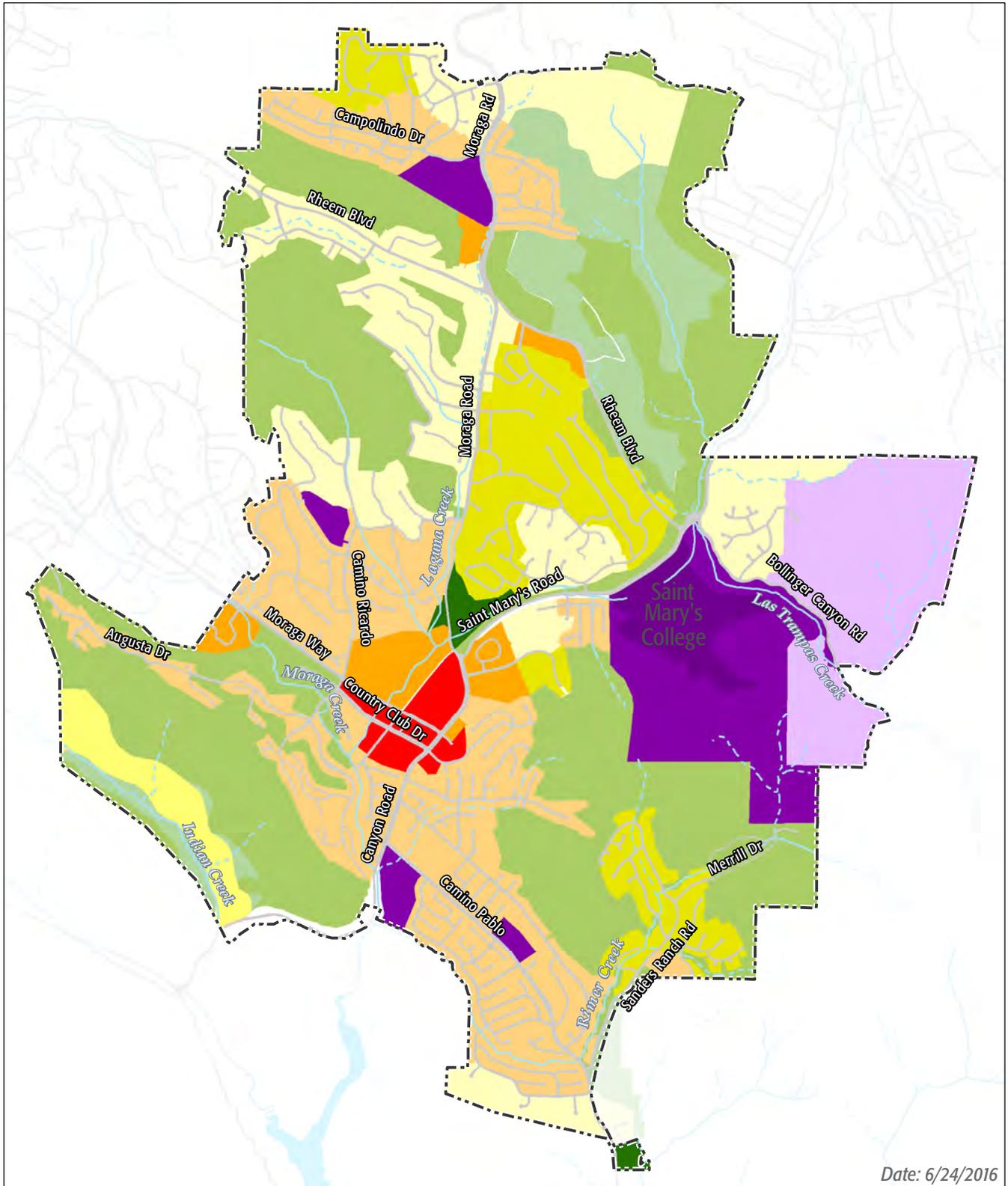
If there is discrepancy between Figure CD-1 and the General Plan text as to the location of a ridgeline, Figure CD-1 shall govern. The Town may from time to time add or remove Significant Non-MOSO and Other Non-MOSO Ridgelines as shown on Figure CD-1.

The centerline or crest of a ridge means the line running along the highest portion of the ridge.

Development shall be prohibited on minor ridgelines immediately adjacent to and extending into MOSO Open Space if slopes exceed twenty percent (20%) and elevation of said ridges is greater than 800 feet above mean sea level.

ATTACHMENT B

AMENDED GENERAL PLAN LAND USE MAP



Date: 6/24/2016

Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2013; PlaceWorks, 2016.

Residential Designation	Commercial Designation	Open Space
1-DUA	Moraga Center	Open Space
1.5-DUA	Rheem Center	Parks
2-DUA	Parks/Open Space Designation	Other Designations
3-DUA	MOSO Open Space	Institutional
6-DUA		Study

GENERAL PLAN LAND USE DESIGNATIONS



ATTACHMENT C

AMENDED MOSO GUIDELINES

GUIDELINES FOR INTERPRETING AND IMPLEMENTING THE MORAGA OPEN SPACE INITIATIVE

Appendix "A" To Town Council Resolution No. 14-92
as amended by Town Council Resolution No. ~~6-99~~X-16

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I. INTRODUCTION

A. Findings

The Town Council of the Town of Moraga finds that:

1. The Moraga Open Space Initiative Measure A (the Open Space Ordinance) was adopted by the voters of the Town of Moraga at the General Municipal Election held on April 8, 1986. The Ordinance took effect on April 26, 1986.
2. By adopting the Ordinance, the people of Moraga have declared their intent "to protect the remaining open space resources within the Town in the interest of: (1) preserving the feel and character of the community; (2) ensuring the adequacy of recreational opportunities which are contingent on such open spaces; (3) ensuring the protection of local and regional wildlife resources which are dependent on the habitat provided by such open space; (4) ensuring that development does not occur in sensitive viewshed area; (5) protecting the health and safety of the residents of the Town by restricting development on steep or unstable slopes; and (6) ensuring that development within the Town is consistent with the capacity of local and regional streets and other public facilities and does not contribute to the degradation of local or regional air quality." (Ordinance Section 2a1)
3. The Open Space Ordinance directs the Town Council to implement the Ordinance promptly after its enactment. (Ordinance Section 5a)
4. These Guidelines are in partial fulfillment of this mandate and represent implementation. Additional measures to implement the Open Space Ordinance will be presented for adoption as mandated by Section 5 of the Ordinance. As these Guidelines are applied, it may become necessary to amend and supplement them.
5. These Guidelines are not intended to amend or modify a requirement of the Ordinance (Ordinance section 5a)
6. These Guidelines are intended to balance fairly the restrictions on development in open space lands under the Open Space Ordinance consistent with the Town's police power with the rights of owners of open space lands.

B. Purpose

These Guidelines are adopted in order to provide for the interpretation, implementation and application of the Open Space Ordinance.

¹ Unless stated otherwise all parenthetical references are to sections of the Open Space Ordinance, attached to these Guidelines as Exhibit "GD".

II. INTERPRETATION

A. Definitions

In these Guidelines unless the context otherwise requires:

1. “building permit” means an entitlement issued under the Uniform Building Code to erect, construct, alter, repair or demolish a building or structure regulated by the Uniform Building Code;
2. “building permit for a development project” refers to the permission given to a development project which on or before April 6, 1986:
 - a. had a final subdivision map approved by the Town; and
 - b. had a fully executed subdivision agreement for completion of tract improvements; (Ordinance Section 4)
4. “centerline of a ridge” or “crest of a ridge” is the line running along the highest portion of a ridge; (Ordinance section 3e)
5. “design review control” is the function of design review prescribed in sections 8-1301 through 8-1341 of the Municipal Code; (Ordinance section 3e)
6. “development” means the placement, discharge or disposal of any material, the grading or removal of any material, the change in the density or intensity of use of the land, the subdivision of land, or the construction or erection of a structure. ~~Development does not include (1) work necessary to eliminate or prevent a condition which is determined by the Town to be a menace to life, limb or property or adversely affects the safety, use or stability of a public way or drainage way or channel, or (2) establishment of a fire trail approved by the Moraga-Orinda Fire Protection District, or (3) a road together with attendant underground utilities, may cross a ridge, if the Planning Commission finds that the crossing is necessary for the orderly development of the Town and does not otherwise conflict with the Municipal Code; (Ordinance Sections 3a-e, as amended by the Town Council on February 24, 1999 by Resolution 6-99).~~

Note: deleted text moved to III.A.2.

7. cell “development envelope” refers means the footprint of all structures and the site improvements made in the immediate vicinity of the home as described in Part II C. of these Guidelines. ~~to a polygonal shaped area comprised of a minimum of 10,000 square feet. Its function is to describe a specific area for the purpose of ascertaining the average slope grade of the cell. The resulting slope grade calculation determines whether development within the cell may be permitted or is prohibited (Ordinance sections 3b, 3d). In the absence of a submittal by an applicant showing one or more cells as defined, cell refers to an area 200' by 200' as designated on Exhibit "C";~~

8. "hearing body" means the Town Council in the case of an application for vested rights exemption and the Planning Commission in the case of an application for status determination;
9. "high risk area" is an area located in Open Space Land determined to be high risk in accordance with Part II D. of these Guidelines; (Ordinance sections 3a, 3c, 3d)
10. "major ridgeline" or "Major MOSO Ridgeline" means the centerline or crest of the ridges known as Indian Ridge, Sanders Ridge, Mulholland Hill, and Campolindo Ridge, where the centerline is located in the lands designated as "public open space study" as shown on the General Plan as it existed on October 16, 1985; (See Exhibit "B")
11. "minor ridgeline" or "Minor MOSO Ridgeline" means the centerline or crest of a ridge other than a major ridgeline/Major MOSO Ridgeline, which rises above 800 feet from mean sea level; (see Exhibit "B"); (Ordinance sections 3b, 3d)
12. "open space land" is an area designated as open space in the General Plan, adopted on August 15, 1990. Open Space Land includes an area designated as "Open Space" by the Open Space Ordinance;

The lands described in GPA 6--Resolution No. 28-83 adopted June 10, 1983, GPA 8--Resolution No. 39-83 adopted September 7, 1983, are included within the term Open Space Land (see Exhibit "A"); (Ordinance sections 3a, 3c, 3d, 3e, 3f, 5b)
13. "Open Space Ordinance" means Measure A adopted at the Consolidated General Municipal Election held April 8, 1986, a copy of which is attached as Exhibit "GE";
14. "parcel" means all land which is contiguous and under one ownership.
15. "project" means a Town approved plan prepared in sufficient detail to permit the completion of physical efforts necessary to accomplish the plan's ultimate objective;
16. "ridge" is the upper portion of a hill which rises to a crest or ridgeline;
17. "ridgeline" is the centerline or crest of a ridge;
18. "slope with grade of 20 percent" or greater refers to land located within open space land which contains an average slope of 20 percent or greater using the slope calculation method set forth in section II.C. of these Guidelines; (Ordinance sections 3b, 3d, 5b)
19. "substantial construction expense" means performing work in good faith reliance on a building permit for the development project. The term refers to expense incurred in actual construction as opposed to expense incurred in planning,

engineering or architectural drawings. The existence of substantial construction expense requires a factual determination in each case, taking into account the nature of the project, Town approvals, and time factors. Among the elements to consider are the physical size and substantiality of work performed, the dollar cost of the work performed and liabilities incurred and the percentage of the total project represented by the work and expenditures already undertaken. (Ordinance section 4)

B. Reference to Exhibits

These Guidelines reference the following exhibits: ~~maps described as~~

- Exhibit "A" — Moraga Open Space Ordinance, ~~Preliminary Interpretation (May 12, 1986)~~ Open Space Land Use Designations (December 2016) (PlaceWorks)
- Exhibit "B" — Moraga Open Space Ordinance, ~~Preliminary Interpretation (May 12, 1986)~~ Ridges Above 800-foot Elevation (December 2016) (PlaceWorks)
- Exhibit "C" — Slope Map, ~~General Plan Program, Town of Moraga (December 1975)~~ December 2016 (COMARC Design Systems-PlaceWorks)
- Exhibit "D" — ~~Development Capability~~ Preliminary High Risk Determination Map, ~~General Plan Program, Town of Moraga (December 1975)~~ (COMARC Design Systems) (PlaceWorks 2016)
- Exhibit "E" — Development Constraints Map (December 2016) (PlaceWorks)
- Exhibit "F" — Methodology to Prepare Preliminary High Risk Determination Map and Development Constraints Map (December 2016) (PlaceWorks)
- Exhibit "GE" — Sample Ballot and Voter Information Pamphlet, Consolidated General Municipal Election, Tuesday, April 8, 1986

The originals of each exhibit which are is on file in the office of the Planning Director are made a part of these Guidelines. A copy of each is attached for reference purposes.

Exhibits "C" and "D" depict only preliminary determination as to slopes and ~~development~~ high risk capability status, respectively. An applicant may submit current information which is more refined and more accurately characterizes the site, in which case that information if accepted by the Town supersedes Exhibit "C" and "D". Exhibit "D" shows high risk status only for undeveloped open space lands with theoretical subdivision

potential for which no site specific geologic or geotechnical study had been prepared as of December 2016.

Exhibit “E” shows a preliminary determination of development constraints to be used as a site planning and project evaluation tool by project applicants and the Town. The methodology used to generate Exhibit “D” and Exhibit “E” is provided in Exhibit “F.”

C. Slope Calculations.

The Moraga Open Space Ordinance states that development is prohibited on slopes with grades of 20 percent or greater. For the purpose of applying this prohibition to a proposed development project, slope shall be calculated as the average slope of a “development envelope” for an individual home. Development envelope means the footprint of all structures and the site improvements made in the immediate vicinity of a home, including but not limited to surrounding hardscape, landscaping or graded land, areas used for ancillary uses such as yard areas and access around the home, driveways serving the home, and accessory buildings such as sheds and garages.

Average slope shall be calculated consistent with Section 14.56.010 (Definitions) of the Town’s Grading Ordinance, using minimum 2-foot contours.

The maximum size of a development envelope is 10,000 square feet. If the area of disturbance of a proposed home exceeds 10,000 square feet, the site shall be divided into two or more development envelopes each of which may not exceed 10,000 square feet.

The average slope of each individual development envelope may not exceed 20 percent. For subdivisions with two or more homes, average slope is calculated separately for the development envelope of each home, not for the subdivision as a whole. The calculation areas do not include intervening areas between the development envelopes.

Public or private streets that serve a subdivision of two or properties are not included in development envelope calculation. A street is allowed if the area of disturbance to accommodate the street does not exceed an average slope of 20 percent, with no limitation on maximum size of this area.

A preliminary determination of slopes with grades of 20% or greater is shown on the Slope Map, attached as Exhibit "C". On that map the cells (200' x 200') designated 5, 6 and 7 represent areas with slopes of greater than 20%. A submittal under these Guidelines shall include a slope analysis map of at least a scale of 1 inch equals 100 feet showing (1) the boundaries of each parcel, (2) elevations every five feet and (3) the average slope for each cell throughout the parcel.

D. Standards for Determining Whether Open Space Land is Within a High Risk Areas

1. Preliminary Identification of High Risk Areas

~~The areas located within a cell designated 1, 2, 3 or 4 on the~~ The Development Capability Preliminary High Risk Determination Map (Exhibit "D") identifies areas determined, on a preliminary basis, to be high risk areas. The preliminary high risk determination is based on four criteria: landslide hazard, slope, accessibility, and drainage conditions. The Exhibit "F" describes the methodology used to prepare the Preliminary High Risk Determination Map.

This is a preliminary determination and governs until more accurate data are submitted to and approved by the Town.

2. Final Determination of High Risk Areas

The final determination of a high risk area shall be made under the procedure provided for a status determination in Section IV.B.1. and in accordance with the following criteria and standards:

An area shall be classified as a high risk area depending upon both (1) its own site characteristics and (2) its location in relation to other geological and topographical conditions.

The standards for final classification of a high risk area as they relate to a site's characteristics include evidence or history or both of soil instability, steepness of slopes, difficulty of access, and adverse drainage conditions. Other standards to be included are whether the site is adversely affected by an off-site landslide and whether or not these characteristics can be adequately mitigated consistent with the California Environmental Quality Act (CEQA), the Towns' Environmental Guidelines, and the Goals and Policies of the General Plan.

The cConditions that determine final classification as a high risk area include but are not limited to:

- 1) Whether the area has the potential to be adversely impacted by a landslide, unstable soil, soil with a history of slippage or a slope subject to severe surface erosion or deterioration;
- 2) Whether it serves as a natural drainage way or swale, with a drainage basin of 50 acres or more or crossed by a perennial or ephemeral (intermittent) drainage channel;
- 3) Within 50 feet of a known active or dormant fault trace;
- 4) Containing a regular or intermittent spring or adverse ground water conditions;
- 5) Within 100 yards upstream or 500 yards downstream of a reservoir, detention basin or pond of one acre or more in surface area;
- 6) Within an area subject to enhanced seismically induced ground shaking or a seismically induced ground failure such as a landslide, lateral spread, rockfall, ground lurching, liquefaction, soil settlement, differential compaction and

compression;

- 7) Within an area subject to the effect of seismically induced flooding and/or dam or stock pond failure.

An area which is classified as a high risk area through the application of the foregoing criteria may not be changed from that classification as a result of any physical alteration of the area included as part of a development project. After the Town makes a final determination that an area is high risk the maximum permitted density in that area shall remain 1 unit per 20 acres regardless of any remediation of geologic hazards that may occur on the site as part of the development project.

For sites containing both high risk areas and non-high risk areas, the total permitted density of the site shall be calculated as the sum of the permitted density in the high risk area (1 unit per 20 acres) plus the permitted density of the non-high risk area as determined in accordance with Section III.C and IV.B of these Guidelines. If the high risk portion of the site is less than 20 acres, units are not permitted in the high risk area if they can be accommodated in a non-high risk area of the site. If a fraction of a unit is allowed in a high risk area less than 20 acres, that fraction may be added to the permitted density in the non-high risk area of the site. For example, 0.5 units allowed in a high risk area of 10 acres may be added to the 2.5 units allowed in the non-high risk area to allow a total of 3 units on the site.

Within high risk areas, grading is allowed to accommodate development at 1 unit per 20 acres, to accommodate development in other areas adjacent to the high risk area, to protect the community from geological hazards, and for other purposes provided the grading complies with all applicable Town regulations. Development in adjacent non-high risk areas that is accommodated by grading within high risk areas may not exceed the maximum allowable density in the non-high risk areas (i.e., no "density bonus" allowed outside of high risk areas, except as noted above to accommodate a fraction of a unit from a high risk area).

~~upon submittal by the applicant, it is found and determined to the Towns' satisfaction that the characteristics making it high risk may be abated by appropriate remedial efforts which are consistent with CEQA, the Town's environmental guidelines, and the Goals and Policies of the General Plan.~~

Within a single parcel, one area could may be determined to be "high risk area" and another area may not. If a high risk area exists on a parcel, the average lot size each cell within non-high risk areas of the parcel which is not designated high risk must shall be at least 10,000 square feet. Individual lots may be less than 10,000 square feet where such lot sizes would be for the purpose of clustering development in less constrained or environmentally sensitive portions of the site, in area to be excluded from the high risk area classification. The procedure for determining density in open space land which is not classified as high risk is prescribed in III.C. and IV.B.

III. RESTRICTIONS ON DEVELOPMENT IN OPEN SPACE LAND

A. Prohibition of Development

Development is prohibited in the following areas:

1. Property situated within open space land (Exhibit "A") as follows:
 - a) On a slope within open space land where the slope has a grade of 20% or greater (See definition of cell and Exhibit "G Part II.C- Slope Calculations");
 - b) Within 500 feet of a Major MOSO Ridge line(Exhibit "B");
 - c) on a Minor MOSO Ridgeline (Exhibit "B") and
2. Property situated on a Minor MOSO Ridgeline immediately adjacent to open space land, and which meets the slope and elevation criteria of section 3.d.(b) of the Open Space Ordinance.
3. The Town may grant an exception to Section 1 above for:
 - a) Work necessary to eliminate or prevent a condition which is determined by the Town to be a menace to life, limb or property or adversely affects the safety, use or stability of a public way or drainage way or channel;
 - b) Establishment of a fire trail approved by the Moraga-Orinda Fire Protection District, or
 - c) A road together with attendant underground utilities, that crosses a ridge, if the Planning Commission finds that the crossing is necessary for the orderly development of the Town and does not otherwise conflict with the Municipal Code. A "road" means any public or private thoroughfare constructed of any material approved by the Town that provides permanent vehicle access to abutting property or a public right-of-way. Roads may include associated and parallel pedestrian pathways, bicycle lanes or paths, sidewalks, single-use or multi-use trails, and on-street parallel parking spaces, that are an integral part of or directly adjacent to a road approved by the Town consistent with this section.

B. Density in Open Space Land

1. In a high risk area, the maximum permitted density is one dwelling unit per 20 acres and may not be increased as part of the same application after the Town's final determination of high risk status is made.
2. In open space land other than a high risk area, density is one dwelling unit per 20 acres unless density is increased as provided in III.C and IV.B of these Guidelines.

3. Density may be transferred from open space land to another residential area located in a land use district other than an open space land use district. Density may be transferred from a high risk area to a non-high risk area, but may not be transferred to a high risk area. (Ordinance section 3d(a))

C. Increase in Density in Open Space Land

1. The Planning Commission may approve an increase in density in open space land other than a high risk area from one unit per 20 acres to not more than one unit per 5 acres based upon findings that a proposed development is consistent with the following criteria:
 - a. The site is physically suitable for the type of development and requested density;
 - b. The development is not likely to cause environmental damage;
 - c. The development is not likely to cause public health problems;
 - d. The distance and relationship to high risk areas is sufficient so that development will not cause undue risk to the subject and surrounding properties and will not increase risk to the public health, safety and welfare;
 - e. The dwelling units in the proposed development can be substantially concealed from scenic corridors by vegetation or the terrain;
 - f. Public benefit will result from the dedication of open space lands, trails or park and recreational facilities beyond those otherwise required for development;
 - g. The distance of development from ridgelines is such that the view of ridgelines from a scenic corridor is protected;
 - h. The project is in compliance with Goal CD85 and related policies of the ~~Open Space and Conservation~~Community Design Element of the General Plan;
 - i. The proposed development is consistent with the information provided regarding development capability (See II.D.)
2. The procedure for determining density in open space land which is not classified as high risk is prescribed in IV.B.

D. Design Review

Development on land located on a ~~Major~~ or ~~Minor~~ MOSO ~~Ridgeline~~ is subject to design review control. A road may cross a ridge only if the Planning Commission finds that the crossing is necessary for orderly development and does not otherwise conflict with the Municipal Code. (Ordinance section 3e)

E. Development Constraints

Development within MOSO Open Space shall be located in the least constrained portion or portions of a site that are most suitable for development. When evaluating the suitable of areas on a site for development, the applicant and the Town may consider the Development Constraints Map included as Attachment "E." The methodology used to generate the Development Constraints Map is provided as Exhibit "F." The Development Constraints Map displays the relative suitability of land for development based on the following criteria: landslide hazard, slope, proximity to roads, proximity to creeks, proximity to ridgelines, vegetation on site, visibility from scenic corridor, and wildfire hazard.

IV. DETERMINING APPLICABILITY OF THE OPEN SPACE ORDINANCE

A. Application for Vested Rights Exemption (Section 4)

1. *Restrictions on development unless vested rights exemption applies.* The restrictions on development set forth in III apply to "...A person who, as of [April 8, 1986] has not (a) obtained a building permit for the development project and (b) incurred substantial construction expenses in good faith reliance on such building permit...". (Ordinance section 4)
2. *Certificate of vested rights exemption.* A person seeking an exemption under section 4 of the Open Space Ordinance may apply to the Town for a vested rights exemption.
3. *Application for vested rights exemption.* A person seeking a vested rights exemption shall apply to the Planning Director setting forth:
 - a) The status of the project and amount of construction work completed as of April 8, 1986;
 - b) A statement of the construction expenses incurred for grading, subdivision improvements and structures as of April 8, 1986;
 - c) The percentage of the total project represented by the work and expenditures in (1) and (2) above; and
 - d) Other information required by the Director which in his opinion is necessary to determine entitlement to a vested rights exemption.
4. *Scope of Vested Rights Exemptions.* A vested rights exemption does not exempt the person receiving the exemption from a permit approval, or requirement other than that imposed by the Open Space Ordinance. Further development on land within a development project for which a person has obtained a vested rights exemption is not subject to the requirements of the Open Space Ordinance.

B. Determining Applicability of Open Space Ordinance to Open Space Land

1. Status Determination

A person whose property is ~~or may be affected by~~ designated by the Open Space Ordinance may apply to the Town for a status determination.

The property owner may apply for a status determination at any time and need not await determination until a development plan is submitted. The application may request a determination as to whether the property is subject to the Open Space Ordinance and if so may request a finding of:

- a) The slope calculation of the property;
- b) Whether or not located in a high risk area; and
- c) The maximum permitted density, applying the criteria set forth in II.D. and III.C.1 of these Guidelines

2. Application for Status Determination

The application for status determination shall be on a form provided by the Town and shall include all materials and information deemed necessary by the Planning Director for the Town to act on application. At a minimum, ~~the~~ application shall be accompanied by:

- a) A map showing:
 - (1) the size and location of the property
 - (2) the present general plan and zoning designations
 - (3) the location of Major and Minor MOSO Ridgelines
 - (4) the area within 500 feet of each Major MOSO Ridgeline;
- b) A slope analysis map with a scale of no smaller than 1 inch equals 100 feet showing:
 - 1) The boundaries of each parcel
 - 2) Contour elevations at intervals of no more than ~~five~~ two feet
 - 3) The average slope for each ~~cell~~ development envelope throughout the parcel, See Part ~~EE~~ II C (Slope calculation)
 - 4) The actual slope for each portion of the parcel when the slope is 20% or greater

This slope analysis map must be accompanied by supplemental information explaining differences, if any, between the map submitted

and the Town's Preliminary Development Capability High Risk Determination Map. (Exhibit "D");

- c. A map identifying all applicable geologic and topographic conditions set forth in section II.D. (characteristics of a high risk area) of these Guidelines;
- d. Visual simulations, three-dimensional models, and/or other graphic modeling techniques demonstrating project visibility and potential visual impacts from scenic corridors and other public places. ~~sketches showing generally the areas which because of terrain or existing vegetation are concealed from view from scenic corridors;~~
- e. soils, geologic, geotechnical or other study or information which the developer believes, or the Planning Director determines is necessary would to aid the Planning Commission in its determination.

C. Hearing, Determination and Appeal

1. Fixing hearing and giving notice.

a. Procedure in the case of vested rights exemption.

- (1) *Preliminary exemption determination.* Upon the filing of an application for a vested rights exemption, the Planning Director shall determine from the application and the Town's records whether the applicant, in the Director's opinion, is entitled to an exemption.
- (2) *Director's recommendation.* If the Director concludes that the applicant is entitled to an exemption, he shall so advise the applicant and have the recommendation placed on the agenda of the first available meeting of the Town Council. No other notice need be given.
- (3) *Town Council action on recommendation.* The Town Council shall act on the Director's recommendation at the earliest practicable time and in no case later than 30 days following the date of the meeting at which the Town Council receives the Director's recommendation unless the time period is waived by the applicant.
- (4) *Failure of Director to recommend.* If the Director concludes that there is reasonable doubt as to whether the applicant is entitled to an exemption the Director shall set the application for hearing before the Town Council.

Notice and conduct of the hearing and decision on the application shall be as provided for in the case of an application for status determination.

b. Procedure in the case of status determination. Upon the filing of an

application for status determination, the Planning Director shall set the application for public hearing before the Planning Commission to be held within 30 days after the submittal is complete. Notice of the hearing shall be sent to all owners of property within 300 feet of the property which is the subject of the application and to any other person who has requested in writing to be notified for that specific application.

2. *Reference of application.* In the case of an application for status determination, the Planning Director may refer the application to the Town Engineer, subcommittee of any Town reviewing body or other technical or professional person. The cost incurred in referring the application shall be borne by the applicant.
3. *Hearing.* At the hearing, the hearing body shall consider the application, the testimony, evidence and all pertinent information presented.
4. *Burden of proof.* The applicant has the burden to present evidence which supports the findings necessary to the decision which it seeks.
5. *Form of and time for decision.* The hearing body shall make its decision in writing together with appropriate findings.
 - a) In the case of an application for vested rights determination, not later than 15 days from the close of the public hearing; and
 - b) In the case of an application for status determination, not later than 60 days from the close of the public hearing unless the applicant consents to an extension.

The Planning Director shall mail a copy of the decision to the applicant and to each person who has requested in writing to be notified of that decision.

6. *Findings and decision.*
 - a) *Vested rights determination.* The Town Council may not grant an exemption unless it finds that the applicant has:
 - (1) obtained a building permit for the development project; and
 - (2) incurred substantial construction expenses in good faith reliance on the permit.
 - b) *Status determination.* In its decision on a status determination, the Planning Commission shall make findings to support its decision with specific reference to the criteria applicable to the request:
 - (1) as to slope calculation, see II C (Slope Calculation)
 - (2) as to high risk areas, see II D (Standards for Determining Whether Open Space Land is within a high risk area)
 - (3) as to density see III C (Increase in Density in Open Space Land)

The Planning Commission decision shall, to the extent practicable, advise the applicant (1) which areas of the property may and may not be developed and (2) the maximum density permitted on the site.

The density determination may be modified based upon new information developed for a specific project and environmental studies conducted for that project, except that density determination modifications are not allowed for areas with a final high risk classification.

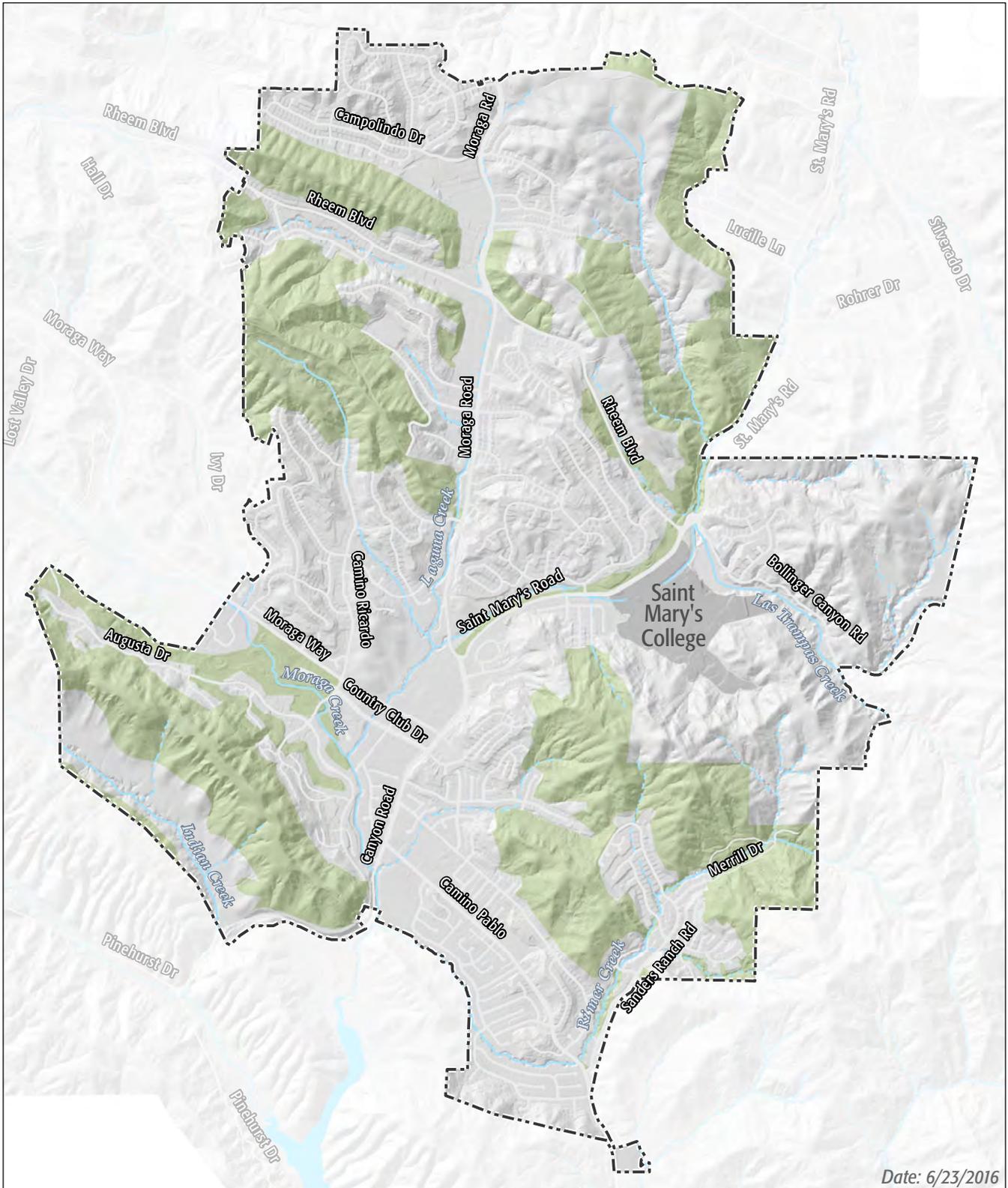
7. *Appeal of Status Determination.* A person desiring to appeal the status determination decision of the Planning Commission to the Town Council shall file a written notice of appeal with the Planning Director within 15 days of the date of the Planning Commission decision. The Town Council shall make its decision on the appeal within 60 days of the date of the notice of appeal.
8. *Supplemental rules and procedures.* The Planning Commission may adopt additional rules and procedures governing proceedings under these Guidelines which are not inconsistent provided such rules and procedures are consistent with these Guidelines.

D. Miscellaneous Provisions

1. *Fees.*
 - a. The fee for filing an application for a vested rights exemption or a status determination is the same as the fee fixed for filing an application for a conditional use permit prescribed by Council Resolution No. 39-91 or as subsequently amended by Resolution of the Town Council.
 - b. The fee for appealing a status determination of the Planning Commission is the fee fixed for an appeal of a Planning Commission decision prescribed by Council Resolution No. 39-91 or as subsequently amended by Resolution of the Town Council.

ATTACHMENT D

**UPDATED MOSO GUIDELINES
EXHIBITS**



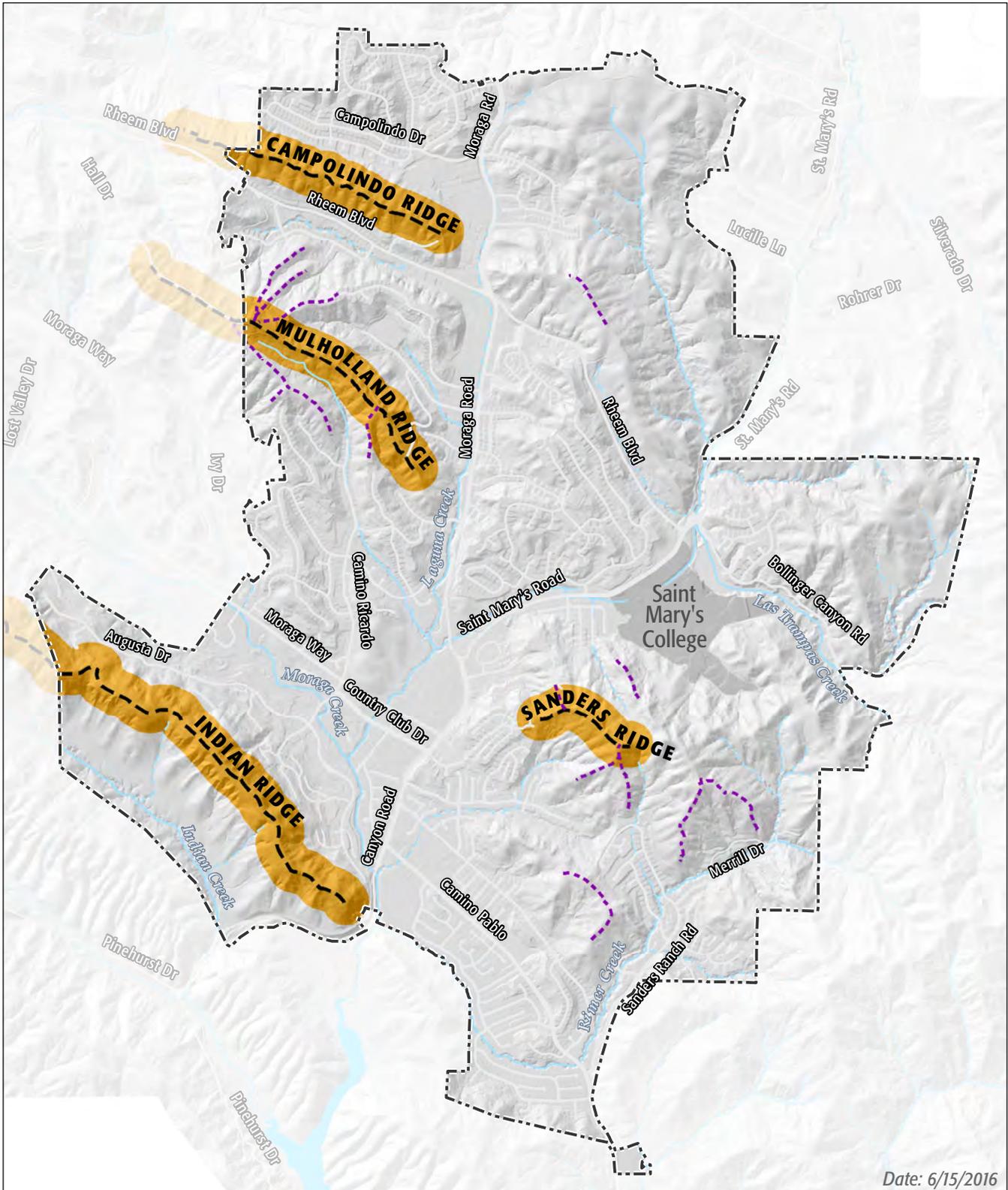
Date: 6/23/2016

Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2013; PlaceWorks, 2016.

-  Town Boundary
-  Major/Permanent Stream
-  Minor/Intermittent Stream
-  MOSO Open Space Land Use Designation

**EXHIBIT A
MOSO OPEN SPACE LAND USE DESIGNATIONS**





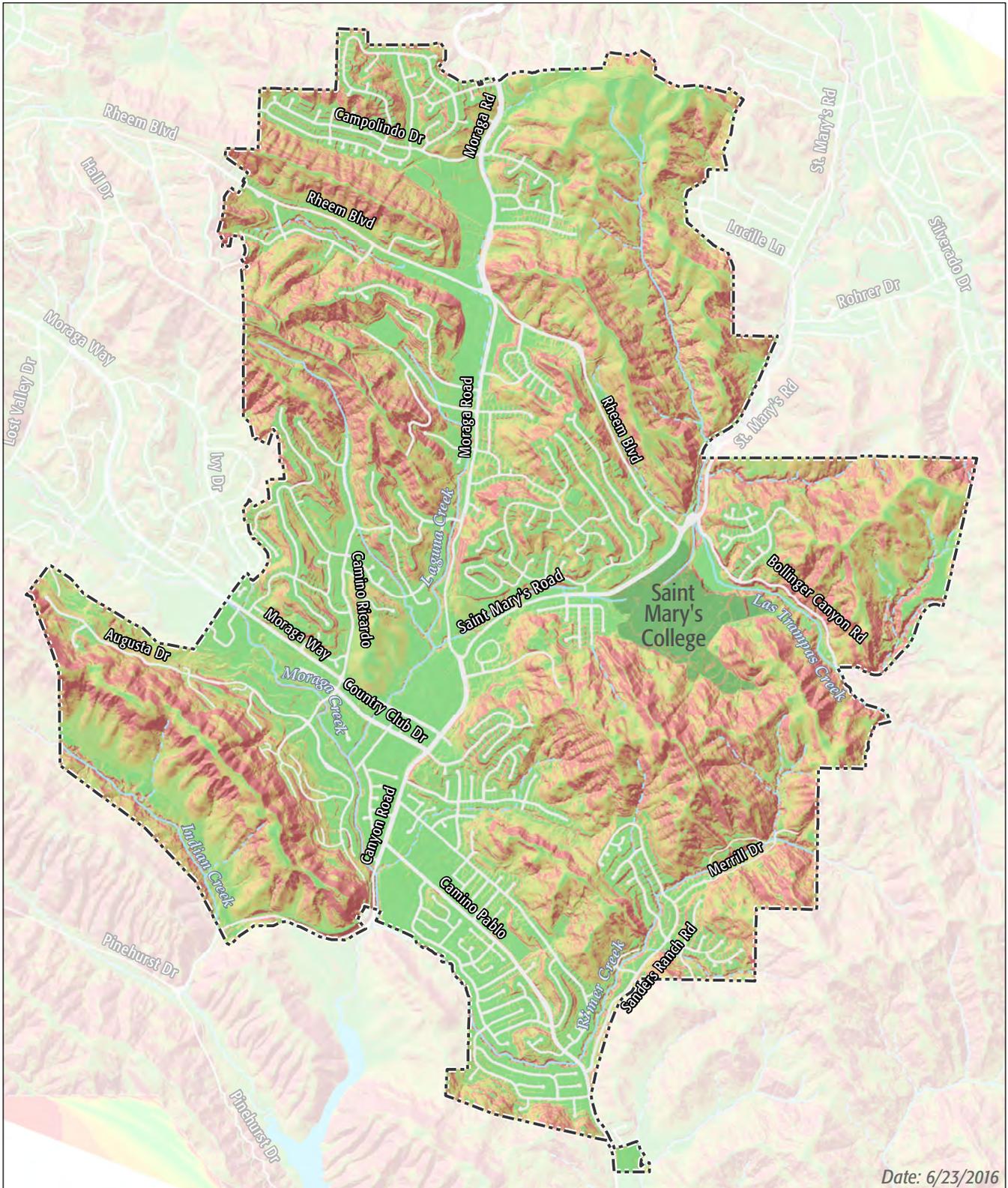
Date: 6/15/2016

Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2006, 2013; PlaceWorks, 2014.

- MOSO Major Ridgelines
- 500-Foot Buffer of MOSO Major Ridgelines
- MOSO Minor Ridgelines
- Major/Permanent Stream
- Minor/Intermittent Stream
- Town Boundary

**EXHIBIT B
RIDGELINES ABOVE 800-FOOT ELEVATION**

0 0.5 1 Miles



Date: 6/23/2016

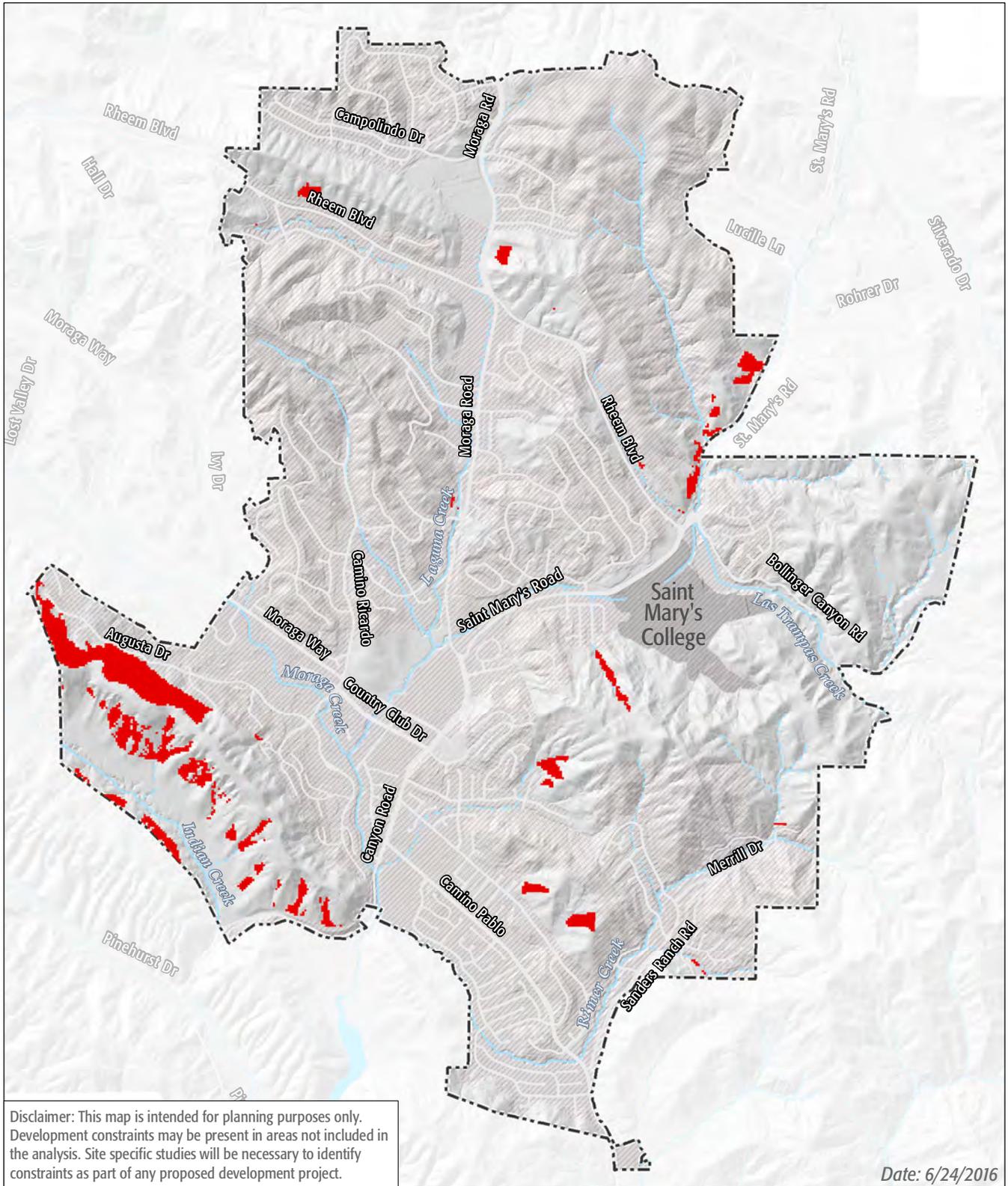
Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2013; PlaceWorks, 2014.

- Town Boundary
- Major/Permanent Stream
- Minor/Intermittent Stream

Slope	
	Less than 5%
	5% to 10%
	10% to 15%
	15% to 20%
	20% to 25%
	Over 25% slope

**EXHIBIT C
SLOPE**





Disclaimer: This map is intended for planning purposes only. Development constraints may be present in areas not included in the analysis. Site specific studies will be necessary to identify constraints as part of any proposed development project.

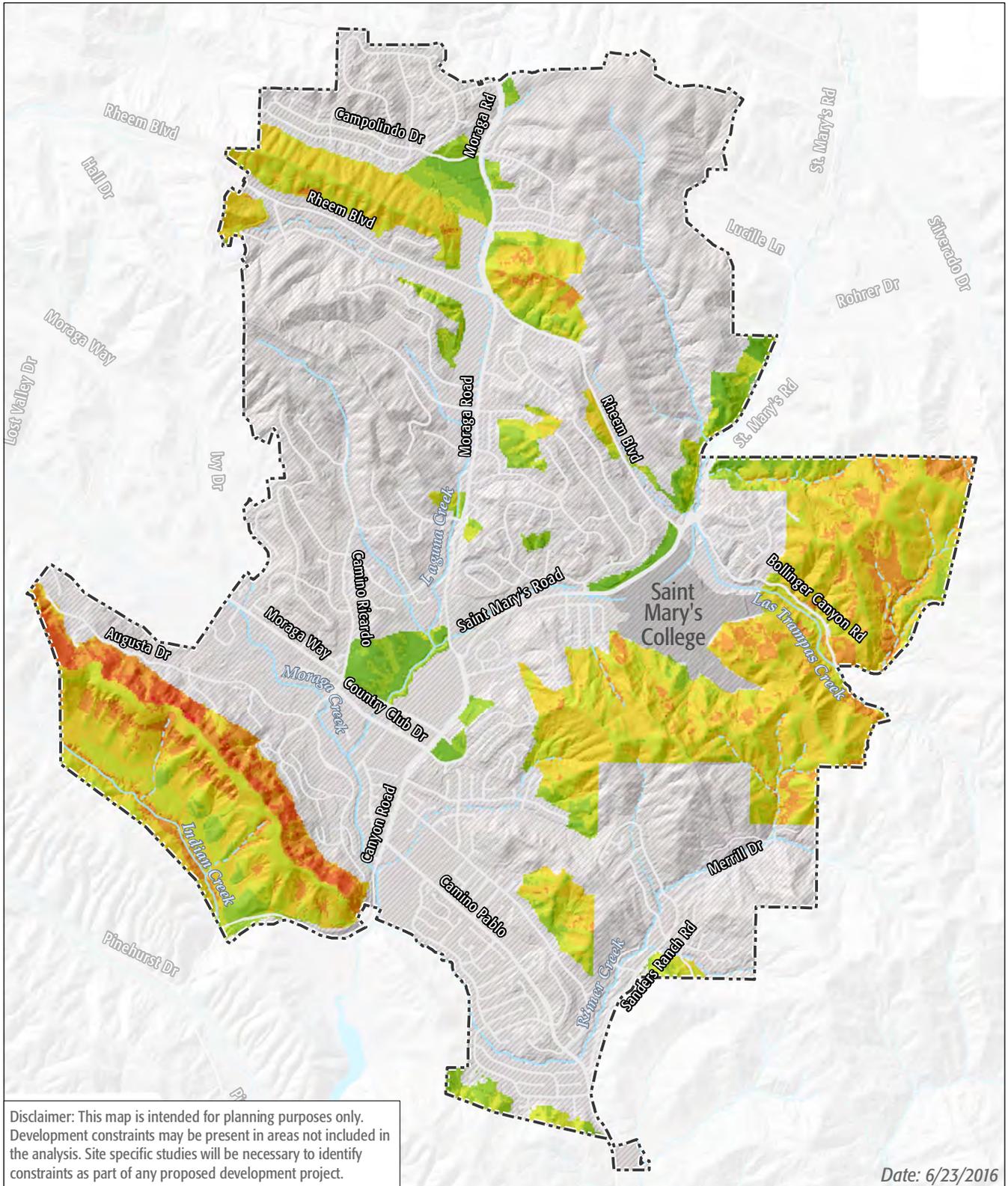
Date: 6/24/2016

Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2006, 2013; PlaceWorks, 2016.

-  MOSO Minor Ridgelines
-  MOSO Major Ridgelines
-  Major/Permanent Stream
-  Minor/Intermittent Stream
-  Town Boundary
-  Preliminary High Risk Area
-  Excluded from Analysis

**EXHIBIT D
PRELIMINARY HIGH RISK DETERMINATION MAP**





Disclaimer: This map is intended for planning purposes only. Development constraints may be present in areas not included in the analysis. Site specific studies will be necessary to identify constraints as part of any proposed development project.

Date: 6/23/2016

Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2006, 2013; PlaceWorks, 2016.

	Town Boundary		Very Low		Medium High
	Major/Permanent Stream		Low		High
	Minor/Intermittent Stream		Medium Low		Very High
			Medium		Most Constrained
					Excluded from Analysis

**EXHIBIT E
DEVELOPMENT CONSTRAINTS MAP**

0 0.5 1 Miles

MORAGA OPEN SPACE ORDINANCE GUIDELINES

Preliminary High Risk Determination Map Methodology

To create the preliminary high risk determination map, PlaceWorks prepared a “weighted raster overlay model” using GeoPlanner, a Geographic Information System (GIS) tool. This document explains the components and functionality of the model and how it was used to create the preliminary high risk determination map.

The “study area” for this analysis was limited to areas that include the remaining large development sites within the Moraga Open Space Ordinance (MOSO) open space lands (i.e. “MOSO Open Space”). To help understand the model, please note the following definitions and key concepts:

- » The layers described below are the criteria that were used in the analysis. Within each layer, every location in the study area was assigned a score based on development risk, as described below.
- » The individual layer scores assigned to each location were tallied up in the model, so that each location has a final score that accounts for all layers. The final score for each location was compared to a threshold value to determine whether the location is considered a preliminary high risk area.
- » The model assigns a weight to each layer, which is a percentage of the total score; together they add up to 100 percent. This allows the model to place higher or lower emphasis on different criteria.

The preliminary high risk determination map uses only the criteria outlined in the MOSO Initiative: soil stability, history of soil slippage, slope grade, accessibility, and drainage conditions. The layers and scoring used in the model are described below. Scores ranging from 1 to 9 were assigned to each location in the study area; higher scores indicate increased risk. For each layer, the description below also indicates how it was weighted in the model.

To create the final map of preliminary high risk areas, locations with a final score of 6 and above were considered to be preliminary high risk areas; locations with a final score below 6 were considered to not be high risk areas.

Soil Stability/Landslide Susceptibility

This layer addresses the soil stability and history of soil slippage criteria from the MOSO Initiative.

Data Source

Landslide hazards mapping prepared by Cotton, Shires & Associates. This data identifies areas with significant potential for landsliding, including:

- » Shallow unstable, unconsolidated material on gentle to steep slopes, commonly less than 10 feet in thickness, subject to shallow landsliding (includes identified shallow landslides and potentially unstable colluvium).
- » Deep unstable, unconsolidated or detached materials on moderate to steep slopes, commonly more than 10 feet in thickness, subject to more significant landsliding (includes identified deep landslides and earth materials susceptible to deep failure).

Scoring

Based on whether in a shallow unstable area or deep unstable area:

- » Locations outside of mapped unstable areas = 1 (i.e., minimal risk)
- » Locations within shallow unstable areas = 5 (i.e., medium risk)
- » Locations within deep unstable areas = 9 (i.e., highest risk)

Weighting

This layer was weighted at 60 percent of the total score.

Slope

This layer addresses the slope grade criterion from the MOSO Initiative.

Data Source

Slope based on Contra Costa County data, modified by PlaceWorks. The slope was calculated in GIS Spatial Analyst using a Digital Elevation Model (DEM). Slope was calculated by finding the ratio of the “vertical change” to the “horizontal change.” The DEM was converted into 2-foot contours, Spatial Analyst was run to determine slope, and the outcome was then classified as shown below.

Scoring

Reflects steepness; scores increase as steepness increases, contributing to increased risk. Slopes over 25 percent were rated as high risk based on the MOSO Guidelines and the Town’s Grading Ordinance, which establish a 25-percent slope threshold:

- » 0-5% slope = 1 (i.e., very low steepness)
- » 5-10% slope = 2 (i.e., low steepness)
- » 10-15% slope = 3 (i.e., medium low steepness)
- » 15-20% slope = 4 (i.e., medium steepness)
- » 20-25% slope = 6 (i.e., medium high steepness)
- » 25-35% slope = 7 (i.e., high steepness)
- » 35-50% slope = 8 (i.e., very high steepness)
- » Greater than 50% slope = 9 (highest steepness)

Weighting

This layer was weighted at 15 percent of the total score.

Accessibility

This layer addresses the accessibility criterion from the MOSO Initiative.

Data Source

Using roadway data from Contra Costa County, PlaceWorks created concentric buffers around all roadways using the buffer tool in ArcGIS for the buffer distances shown below. All classes of roadways were used.

Scoring

Reflects accessibility based on distance from roadway centerlines:

- » 0-250 feet from road centerline = 1 (i.e., highest accessibility)
- » 250-500 feet from road centerline = 2 (i.e., very high accessibility)
- » 500-750 feet from road centerline = 3 (i.e., high accessibility)
- » 750-1,000 feet from road centerline = 4 (i.e., medium high accessibility)
- » 1,000-1,250 feet from road centerline = 5 (i.e., medium accessibility)
- » 1,250-1,500 feet from road centerline = 6 (i.e., medium low accessibility)
- » 1,500-1,750 feet from road centerline = 7 (i.e., low accessibility)
- » 1,750-2,000 feet from road centerline = 8 (i.e., very low accessibility)
- » More than 2,000 feet from road centerline = 9 (i.e., lowest accessibility)

Weighting

This layer was weighted at 10 percent of the total score.

Hydrology

This layer addresses the drainage conditions criterion from the MOSO Initiative.

Data Source

Using hydrology data from Contra Costa County, PlaceWorks created concentric buffers around major and minor streams using the buffer tool in ArcGIS for the buffer distances shown below.

Scoring

Based on proximity to major/permanent streams and to minor/intermittent streams:

- » Major Streams:
 - More than 400 feet from major stream = 1 (i.e., lowest proximity)
 - 300-400 feet from major stream = 3 (i.e., low proximity)
 - 200-300 feet from major stream = 5 (i.e., medium proximity)
 - 100-200 feet from major stream = 7 (i.e., high proximity)
 - 0-100 feet from major stream = 9 (i.e., greatest proximity)
- » Minor Streams:

- More than 80 feet from minor stream = 1 (i.e., lowest proximity)
- 60-80 feet from minor stream = 3 (i.e., low proximity)
- 40-60 feet from minor stream = 5 (i.e., medium proximity)
- 20-40 feet from minor stream = 7 (i.e., high proximity)
- 0-20 feet from minor stream = 9 (i.e., greatest proximity)

Weighting

This layer was weighted at 15 percent of the total score.

MORAGA OPEN SPACE ORDINANCE GUIDELINES

Development Constraints Map Methodology

To create the development constraints map, PlaceWorks prepared a “weighted raster overlay model” using GeoPlanner, a Geographic Information System (GIS) tool. This document explains the components and functionality of the model and how it was used to create the development constraints map.

The “study area” for this analysis was limited to areas that include the remaining large development sites in Moraga. To help understand the model, please note the following definitions and key concepts:

- » The layers described below are the criteria that were used in the analysis. Within each layer, every location in the study area was assigned a score based on development constraints, as described below.
- » The individual layer scores assigned to each location were tallied up in the model, so that each location has a final score that accounts for all layers. The resulting map uses a color gradient to demonstrate the areas with the highest development constraints based on this score.
- » The model assigns a weight to each layer, which is a percentage of the total score; together they add up to 100 percent. This allows the model to place higher or lower emphasis on different criteria.

The layers and scoring are described below. Scores ranging from 1 to 9 were assigned to each location in the study area; higher scores indicate increased development constraints. For each layer, the description below also indicates how it was weighted in the model.

Soil Stability/Landslide Susceptibility

Data Source

Landslide hazards mapping prepared by Cotton, Shires & Associates. This data identifies areas with significant potential for landsliding, including:

- » Shallow unstable, unconsolidated material on gentle to steep slopes, commonly less than 10 feet in thickness, subject to shallow landsliding (includes identified shallow landslides and potentially unstable colluvium).
- » Deep unstable, unconsolidated or detached materials on moderate to steep slopes, commonly more than 10 feet in thickness, subject to more significant landsliding (includes identified deep landslides and earth materials susceptible to deep failure).

Scoring

Based on whether in a shallow unstable area or deep unstable area:

- » Locations outside of mapped unstable areas = 1 (i.e., minimal constraint)
- » Locations within shallow unstable areas = 5 (i.e., medium constraint)
- » Locations within deep unstable areas = 9 (i.e., highest constraint)

Weighting

This layer was weighted at 20 percent of the total score.

Slope

Data Source

Slope based on Contra Costa County data, modified by PlaceWorks. The slope was calculated in GIS Spatial Analyst using a Digital Elevation Model (DEM). Slope was calculated by finding the ratio of the “vertical change” to the “horizontal change.” The DEM was converted into 2-foot contours, Spatial Analyst was run to determine slope, and the outcome was then classified as shown below.

Scoring

Reflects steepness; scores increase as steepness increases, contributing to increased development constraint. Slopes over 25 percent were rated as highly constrained based on the MOSO Guidelines and the Town’s Grading Ordinance, which establish a 25-percent slope threshold:

- » 0-5% slope = 1 (i.e., very low steepness)
- » 5-10% slope = 2 (i.e., low steepness)
- » 10-15% slope = 3 (i.e., medium low steepness)
- » 15-20% slope = 4 (i.e., medium steepness)
- » 20-25% slope = 6 (i.e., medium high steepness)
- » 25-35% slope = 7 (i.e., high steepness)
- » 35-50% slope = 8 (i.e., very high steepness)
- » Greater than 50% slope = 9 (highest steepness)

Weighting

This layer was weighted at 6 percent of the total score.

Accessibility

Data Source

Using roadway data from Contra Costa County, PlaceWorks created concentric buffers around all roadways using the buffer tool in ArcGIS for the buffer distances shown below. All classes of roadways were used.

Scoring

Reflects accessibility based on distance from roadway centerlines:

- » 0-250 feet from road centerline = 1 (i.e., highest accessibility)
- » 250-500 feet from road centerline = 2 (i.e., very high accessibility)
- » 500-750 feet from road centerline = 3 (i.e., high accessibility)
- » 750-1,000 feet from road centerline = 4 (i.e., medium high accessibility)
- » 1,000-1,250 feet from road centerline = 5 (i.e., medium accessibility)
- » 1,250-1,500 feet from road centerline = 6 (i.e., medium low accessibility)
- » 1,500-1,750 feet from road centerline = 7 (i.e., low accessibility)
- » 1,750-2,000 feet from road centerline = 8 (i.e., very low accessibility)

- » More than 2,000 feet from road centerline = 9 (i.e., lowest accessibility)

Weighting

This layer was weighted at 4 percent of the total score.

Ridgelines

Data Sources

MOSO Major and Minor Ridgelines data provided by the Town of Moraga. PlaceWorks identified other Non-MOSO ridgelines above 800 feet in elevation using GIS.

Scoring

Reflects proximity to ridgelines:

- » More than 1,250 feet from ridgeline = 1 (i.e., lowest proximity)
- » 1,000-1,250 feet from ridgeline = 3 (i.e., low proximity)
- » 750-1,000 feet from ridgeline = 5 (i.e., medium proximity)
- » 500-750 feet from ridgeline = 7 (i.e., high proximity)
- » 0-500 feet from ridgeline = 9 (i.e., greatest proximity)

Weighting

This layer was weighted at 20 percent of the total score.

Hydrology

Data Source

Using hydrology data from Contra Costa County, PlaceWorks created concentric buffers around major and minor streams using the buffer tool in ArcGIS for the buffer distances shown below.

Scoring

Based on proximity to major/permanent streams and to minor/intermittent streams:

- » Major Streams:
 - More than 400 feet from major stream = 1 (i.e., lowest proximity)
 - 300-400 feet from major stream = 3 (i.e., low proximity)
 - 200-300 feet from major stream = 5 (i.e., medium proximity)
 - 100-200 feet from major stream = 7 (i.e., high proximity)
 - 0-100 feet from major stream = 9 (i.e., greatest proximity)
- » Minor Streams:

- More than 80 feet from minor stream = 1 (i.e., lowest proximity)
- 60-80 feet from minor stream = 3 (i.e., low proximity)
- 40-60 feet from minor stream = 5 (i.e., medium proximity)
- 20-40 feet from minor stream = 7 (i.e., high proximity)
- 0-20 feet from minor stream = 9 (i.e., greatest proximity)

Weighting

This layer was weighted at 6 percent of the total score.

Flood Hazards

Data Source

FEMA flood hazard zones.

Scoring

Based on whether in a 100- or 500-year flood zone:

- » Locations outside of the mapped flood zones = 1 (i.e., low flooding risk)
- » Locations within the 500-year flood zone = 5 (i.e., medium flooding risk)
- » Locations within the 100-year flood zone = 9 (i.e., high flooding risk)

Weighting

This layer was weighted at 8 percent of the total score.

Wildfire Hazards

Data Source

CalFIRE fire hazard severity zones.

Scoring

Based on fire hazard zones:

- » Locations in “urban unzoned” areas and Moderate Fire Hazard Severity Zone = 1 (i.e., low fire risk)
- » Locations in High Fire Hazard Severity Zone = 5 (i.e., medium fire risk)
- » Locations in Very High Fire Hazard Severity Zone = 9 (i.e., high fire risk)

Weighting

This layer was weighted at 8 percent of the total score.

Vegetation

Data Source

US Forest Service CALVEG data.

Scoring

Reflects impacts from removal of sensitive vegetation and habitat:

- » Cropland (CRP) = 1 (i.e., not sensitive vegetation)
- » Annual grass (AGS) = 5 (i.e., moderately sensitive vegetation)
- » Urban (urban trees) (URB) = 5 (i.e., moderately sensitive vegetation)
- » Valley foothill riparian (VRI) = 9 (i.e., sensitive vegetation)
- » Coastal oak woodland (COW) = 9 (i.e., sensitive vegetation)
- » Coastal Scrub (SCS) = 9 (i.e., sensitive vegetation)

Weighting

This layer was weighted at 8 percent of the total score.

Visibility from Scenic Corridors

Data Source

PlaceWorks conducted a hillside visibility analysis in GIS. The analysis identifies visibility from viewpoints every 200 feet along Town-designated scenic corridors.

Scoring

Based on relative visibility score in analysis (ranges from 0 to 166):

- » Visibility value of 0 to 18.5 = 1 (i.e., lowest visibility)
- » Visibility value of 18.5 to 37 = 2 (i.e., very low visibility)
- » Visibility value of 37 to 55.5 = 3 (i.e., low visibility)
- » Visibility value of 55.5 to 74 = 4 (i.e., medium low visibility)
- » Visibility value of 74 to 92.5 = 5 (i.e., medium visibility)
- » Visibility value of 92.5 to 111 = 6 (i.e., medium high visibility)
- » Visibility value of 111 to 129.5 = 7 (i.e., high visibility)
- » Visibility value of 129.5 to 148 = 8 (i.e., very high visibility)
- » Visibility value of 148 to 166 = 9 (i.e., highest visibility)

Weighting

This layer was weighted at 20 percent of the total score.

ATTACHMENT E

**ZONING CODE TEXT
AMENDMENTS**

**ATTACHMENT E:
AMENDMENTS TO THE ZONING CODE (MUNICIPAL CODE TITLE 8)
AND GRADING ORDINANCE (MUNICIPAL CODE TITLE 14)**

Additions are shown in underline and deletions in ~~strikethrough~~ text.

Chapter 8.04 - GENERAL PROVISIONS AND DEFINITIONS

Section 8.04.020 - Definitions

Note: average percent slope definition moved from Chapter 8.136.

“Average slope” means the average percent slope of a parcel or site calculated using the following formula: $S = 100(I)(L)/A$, where:

S = average percent slope;

I = contour interval in feet;

L = total length of all contours on parcel or site in feet;

A = area of subject parcel or site in square feet;

“Development” means the placement, discharge or disposal of any material, the grading or removing of any material, the change in the density or intensity of use of land, the subdivision of land, or the construction or erection of a structure.

“Hillside area” or “hillside land” means either:

A parcel or site with an average slope of twenty (20) percent or greater; or

The area of disturbance of a development project with an average predevelopment slope of twenty (20) percent or greater.

“Ridgeline” means one or more of the following, as shown in General Plan Figure CD-1:

A *Major MOSO Ridgeline* means the centerline or crest of the ridges known as Indian Ridge, Sanders Ridge, Mulholland Ridge and Campolindo Ridge, where the crest is above 800 feet above mean sea level and within an area with a MOSO Open Space designation on the General Plan Diagram. Major MOSO Ridgeline shall have the same meaning as “major ridgeline” as that term is used and defined in the Moraga Open Space Ordinance.

A *Minor MOSO Ridgeline* means the centerline or crest of any ridge other than those identified as ‘major ridgelines,’ where the crest is above 800 feet above mean sea level and within an area with a MOSO Open Space designation on the General

Plan Diagram. Minor MOSO Ridgeline shall have the same meaning as “minor ridgeline” as that term is used and defined in the Moraga Open Space Ordinance.

A Significant Non-MOSO Ridgeline means those ridgelines shown in General Plan Figure CD-1 as a Significant Non-MOSO Ridgeline.

An Other Non-MOSO Ridgeline means those ridgelines shown in General Plan Figure CD-1 as an Other Non-MOSO Ridgeline.

The centerline or crest of a ridge means the line running along the highest portion of the ridge.

CHAPTER 8.52 – MOSO AND NON-MOSO OPEN SPACE DISTRICTS

8.52.080 - Definitions

"High risk area" means an area determined to be high risk in accordance with Part II (D) of the "Guidelines for the Interpretation and Implementation of the Moraga Open Space Ordinance - Measure A," ~~adopted as~~ as amended by Resolution XX14-1692 by the Town Council on ~~February 12, 1992.~~ on [Adoption Date], 2016 in accordance with the Moraga Open Space Ordinance (MOSO).

8.52.150 - MOSO Open Space Density – Additional Provisions.

The following additional provisions apply to development in MOSO Open Space as allowed by Section 8.52.140 (MOSO Open Space Density).

A. **High Risk Areas.** After the Town makes a final determination that an area is high risk the maximum permitted density in that area shall remain 1 unit per 20 acres regardless of any remediation of geologic hazards that may occur on the site as part of the development project.

B. **Exceptions to Development Prohibitions.** The Town may grant an exception to the development prohibitions identified in section 8.52.150 for:

1. Work necessary to eliminate or prevent a condition which is determined by the Town to be a menace to life, limb or property or adversely affects the safety, use or stability of a public way or drainage way or channel;
2. Establishment of a fire trail approved by the Moraga-Orinda Fire Protection District, or

3. A road together with attendant underground utilities, that crosses a ridge, if the Planning Commission finds that the crossing is necessary for the orderly development of the Town and does not otherwise conflict with the Municipal Code. A "road" means any public or private thoroughfare constructed of any material approved by the Town that provides permanent vehicle access to abutting property or a public right-of-way. Roads may include associated and parallel pedestrian pathways, bicycle lanes or paths, sidewalks, single-use or multi-use trails, and on-street parallel parking spaces, that are an integral part of or directly adjacent to a road approved by the Town consistent with this Section.

CHAPTER 8.72 – DESIGN REVIEW

8.72.020 - Purpose.

The purpose of this chapter is to provide for the review of the design of projects proposed in all land use districts, including projects that meet thresholds for design review pursuant to Chapter 8.132, Scenic Corridors, Chapter 8.136, ~~Slope Density~~ Hillside Development, Title 14, Grading, and Chapter 8.88, Signs and Outdoor Advertising, and projects requiring land use review by the planning commission, such as those under Chapter 8.52, MOSO and Non-MOSO Open Space, and variance and conditional use permit regulations. Design control should be the minimum necessary to achieve the objectives of the chapter and the policy of the town.

CHAPTER 8.128– RIDGELINE PROTECTION

~~8.128.010 – Findings and purpose.~~

~~A. The town council finds that:~~

- ~~1. Within the town there are hills and ridges constituting significant natural topographical features of the community;~~
- ~~2. The hillsides and ridgelines contain appropriate routes for equestrian and pedestrian trails which can be acquired by the town to its greatest advantage through dedications.~~

~~B. The purpose of this chapter is to:~~

- ~~1. Control the scarring and cutting ridgelines and steep slopes;~~
- ~~2. Regulate the development of ridgeline areas by imposing standards for improvements.~~

(Prior code § 8-5701)

8.128.010 - Purpose

This chapter establishes regulations for development on and near designated ridgelines in Moraga. The intent of these regulations is to:

- A. Implement General Plan Goals which calls for the Town to maintain undeveloped hillside and ridgelines in Moraga as scenic open space, and other Town policies related to ridgeline and hillside areas.
- B. Preserve and protect Moraga's unique semi-rural feel and scenic natural setting characterized by hillsides and ridgelines that appear substantially free of visible development.
- C. Allow for a reasonable amount of development of hillside areas to support a range of community goals including increasing economic vitality, protecting public safety, and increasing housing choices.
- D. Protect the public health, safety and welfare by reducing public exposure to geologic risks and other hazards common in hillside areas.
- E. Protect scenic resources by limiting the hillside development visible from the Town's scenic corridors and other public places.

8.128.020 – Designation of Ridgelines

The location of Major and Minor MOSO Ridgelines, Significant Non-MOSO Ridgelines, and Other Non-MOSO Ridgelines as defined in Section 8.04.020 (Definitions) shall be as shown in Figure CD-1 of the General Plan.

8.128.030 - Development Standards: MOSO Ridgelines on ridgelines.

- A. Development shall be prohibited within five hundred (500) feet of the centerline of a major ridge (as defined in subsection B of this section) located in an area designated on the general plan as "private open space" or "public open space-study" and development shall be subject to strict design review control in all other ridge areas. A road, together with attendant underground utilities may cross a ridge, if the planning commission finds that the crossing is necessary for the orderly development of the town and does not otherwise conflict with the municipal code.

- B. For the purpose of this section, the centerline of a major ridge is the line running along the highest portion of the ridge located within those areas designated on the general plan as "private open space" or "public open space-study."

8.128.040 – Development Standards: Non-MOSO Ridgelines

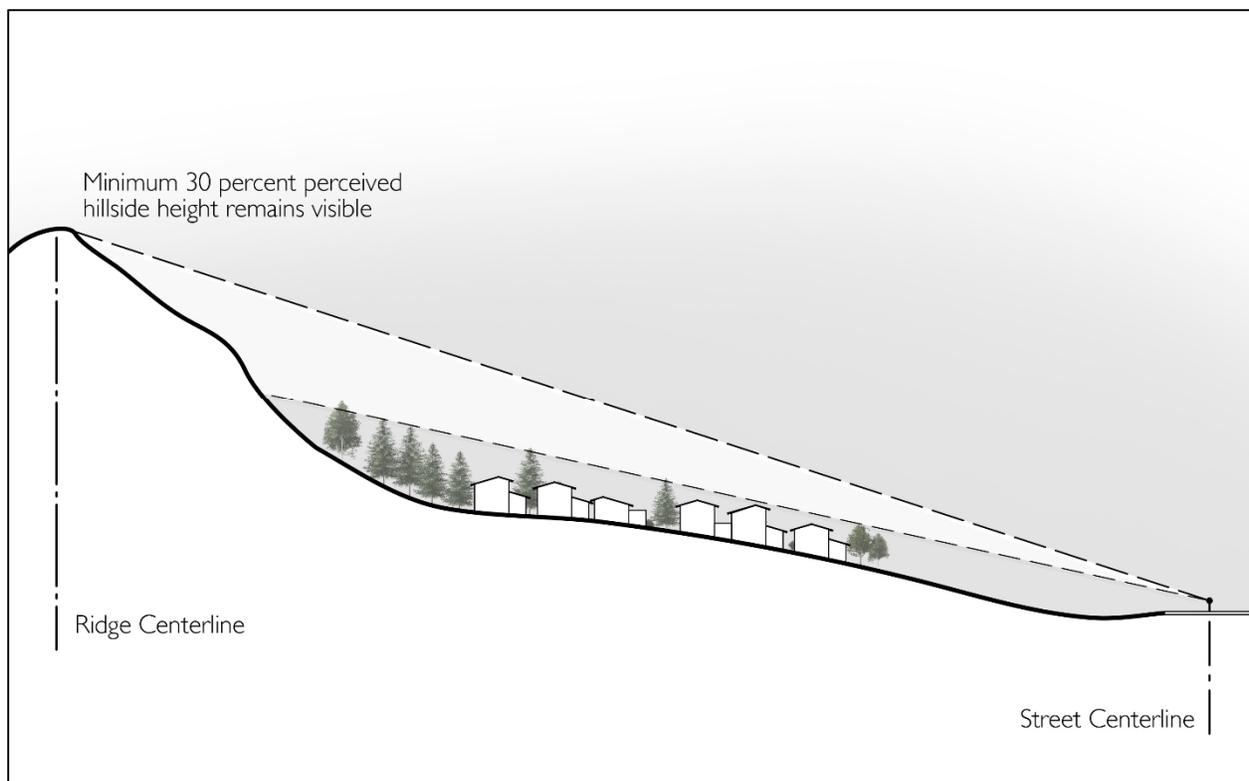
The following standards apply to all development within the vicinity of Significant Non-MOSO Ridgelines and Other Non-MOSO Ridgelines. In addition to these standards, development shall also comply with all applicable hillside and ridgeline policies in the General Plan, Design Standards and Guidelines, and any applicable specific plan or area plan.

A. Significant Non-MOSO Ridgelines. The following standards apply only to undeveloped parcels and/or newly subdivided parcels. These standards do not apply to parcels established as of [effective date of ordinance] occupied by an existing home. Existing homes may be altered and expanded as allowed by the zoning district that applies to the property and in accordance with other applicable Town standards and regulations.

1. **Horizontal Buffer.** Development is prohibited within 200 feet of the centerline of a Significant Non-MOSO Ridgeline (measured horizontally in plan view).
2. **Visual Separation.** The following visual separation requirements apply to undeveloped properties where a Significant Non-MOSO Ridgeline is visible immediately behind the property when viewed from the public right-of-way centerline of an adjacent scenic corridor.
 - a. Structures must be located and designed so that a minimum of 35 percent of the perceived vertical height of a hillside as observed from a scenic corridor remains visible above a structure and below the Significant Non-MOSO Ridgeline. See Figure 18.128-1.
 - b. For proposed structures located such that they would have any effect on the view of a Significant Non-MOSO Ridgeline and adjacent hillside area from a scenic corridor, the applicant shall prepare one or more visual simulations demonstrating compliance with this standard. Visual simulations shall be consistent with the Town's Guidelines for Visual Representation of Proposed Development Projects and shall use one or more vantage points within the public right of way of the scenic corridor, and from which the proposed project will have the greatest visual prominence relative to the ridgeline as determined by the Planning Director.
 - c. Prior to Town action on the proposed project, the applicant shall install story poles as required by the Planning Director demonstrating project compliance

with this standard and in accordance with the Town's Guidelines for Visual Representation of Proposed Development Projects. In cases when site topography or other physical constraints prevent the installation of story poles, the Planning Commission may allow an alternative method to demonstrate compliance, including additional visual simulations, three-dimensional models, and other graphic modeling techniques.

Figure 18.128-1: Significant Non-MOSO Ridgeline Visual Separation Requirement



3. Exception to Visual Separation Requirement.

- a. The Town Council may grant an exception to the Visual Separation standard in paragraph 2 above at a noticed public hearing upon finding that compliance with the standard would result in a taking of private property in violation of the U.S. Constitution.
- b. Before approving the exception, the applicant shall demonstrate to the satisfaction of the Town Council that there are not feasible and reasonable alternatives to the project that would comply with the standard. The applicant

shall submit an alternatives analysis considering alternative on-site development locations, reductions in density, revised lot layout, and other design modifications.

- c. When approving the exception, the Town Council may attach conditions to the project approval to ensure that:
 - i. The project achieves the intent of maintaining a visual separation between structures and the ridgeline to the greatest extent possible.
 - ii. The proposed development does not pose an unreasonable threat to the public health, safety, or welfare and is consistent with the public interest.
 - iii. The proposed project is otherwise consistent with the General Plan and all other applicable Town plans, policies, and regulations.

B. Other Non-MOSO Ridgelines. There is no specific buffer or visual separation standard that applies to Other Non-MOSO Ridgelines. Development on and near Other Non-MOSO Ridgelines shall be designed to maintain Moraga’s unique semi-rural feel and scenic natural setting to the greatest extent possible consistent with the hillside and ridgeline policies in the General Plan policies and the Design Guidelines and Standards.

8.128.040 – Streets

C. Crossing Ridgeline Allowed.

- 1. The Planning Commission may allow a road, together with attendant underground utilities, to cross a Major MOSO Ridgeline, a Minor MOSO Ridgeline, or a Significant Non-MOSO Ridgeline upon finding that the crossing is necessary for the orderly development of the town and does not otherwise conflict with the Municipal Code.
- 2. A “road” means any public or private thoroughfare constructed of any material approved by the Town that provides permanent vehicle access to abutting property or a public right-of-way. Roads may include associated and parallel pedestrian pathways, bicycle lanes or paths, sidewalks, single-use or multi-use trails, and on-street parallel parking spaces, that are an integral part of or directly adjacent to a road approved by the Town consistent with this policy.

D. Design Standards and Guidelines. Any street crossing a ridgeline shall comply with the design standards and guidelines for streets in Section R4 (Streets and Sidewalks) in the Town of Moraga Design Standards and Guidelines.

CHAPTER 8.132 – SCENIC CORRIDORS

8.132.050 - Development Guidelines.

3. Buildings shall be located and designed to maintain views of distant hillsides while allowing for an appropriate intensity of development consistent with the intent of the applicable zoning district and General Plan designation.
5. Each structure or feature reviewable under this chapter shall be limited to scale and siting to reduce visual dominance or obstruction of existing landforms (particularly MOSO Ridgelines and Significant Non-MOSO Ridgelines and adjacent hillside areas), vegetation, water bodies and adjoining structures.

CHAPTER 8.136 – HILLSIDE DEVELOPMENT SLOPE DENSITY

Sections:

~~8.136.010 – Findings and declarations of intent.~~

~~A. The town council finds that:~~

- ~~1. It is desirable to require in hill areas an alternative approach to traditional and conventional flat land practices of residential development, to minimize grading and cut and fill operations consistent with the retention of the natural character of the hill areas, to achieve land use densities that preserve land values for owners but which will at the same time not adversely affect the significant natural features of the hill areas, and to preserve the predominant views both from and of the hill areas;~~
- ~~2. The retention of hillsides in as near a natural state as is feasible is important for the maintenance of community values.~~

~~B. The purposes of this chapter are to:~~

- ~~1. Maintain the suburban character and beauty of the town by preserving its open and natural topographic features;~~
- ~~2. Minimize soil erosion and slides and potential residual damage to life or property associated with involuntary and seismic-induced earth movement;~~
- ~~3. Control the scarring and cutting of hillsides;~~
- ~~4. Limit the development of hillsides so that the foregoing purposes are achieved;~~
- ~~5. Regulate the development of hillside areas by providing for the imposition of standards for streets, trails and other improvements consistent with these purposes.~~

~~8.136.020 – Definitions and calculations.~~

A. In this chapter:

1. "Hillside land" is land which has a slope of twenty (20) percent or greater;
2. "Percent of slope" is the vertical drop divided by the horizontal distance multiplied by 100.
3. Average percent slope "S" is computed on net area of a parcel by the following formula:

$S =$	$0.002296 \frac{L}{L}$	or $S =$	$100 \frac{L}{L}$
Where	$S =$ average percent slope; $L =$ contour interval in feet; $L =$ summation of length of all contours in feet; $A =$ area in acres of parcel being considered; $a =$ area in square feet of parcel being considered.		

8.136.030 – Applicability and relation to other land.

- A. This chapter applies to all hillside land as defined in Section 8.136.020(A)(1).
- B. Both the regulation of the land use district to which the land is classified and this chapter apply to hillside land. If there is a conflict between this chapter and the land use regulations which apply by virtue of zoning, this chapter and the regulations, requirements, and conditions imposed under authority of this chapter control.

8.136.040 – Uses of hillside land.

- A. Permitted Uses. The uses permitted on hillside land are the same uses permitted in the land use district to which the land is classified.
- B. Development Prohibited Without Permit. No person may grade, clear, construct upon or alter hillside land without approval granted under this chapter.

8.136.050 – Application for hillside development permit.

- A. Requirement for Permit. A person who desires to erect a structure or to grade or improve hillside land must receive a hillside development permit. The application may be combined with an application for a building permit, conditional use permit, tentative subdivision map approval or other land use entitlement.
- B. Application and Information. An applicant shall file an application on a form provided by the town. The applicant shall submit slope calculations and a map showing contour intervals for the parcel. The map shall be at a scale which enables the reviewing body to act upon the application.

~~C. Designation of Reviewing Body. The reviewing body is the authority charged with the duty of passing upon any land use entitlement. In the case of an application which requires only building permit approval, the reviewing body is the design review board. The reviewing body may refer the application to another component unit of the planning agency for review and recommendation.~~

~~8.136.060 – Area required for lots on hillside land.~~

~~The minimum lot area shall not be less than that prescribed by the general plan. However, the required lot areas may be increased above the minimum when the reviewing body finds that it is necessary to do so because of the slope in order to assure that there will be a suitable building site for the approved type of residential building. In determining whether it is necessary to increase the lot area required above the minimum prescribed by the general plan, the reviewing body shall apply the standards set forth in Section 8.136.070. As a general rule, larger lots should be on steeper slopes and smaller lots should be on flatter land.~~

~~8.136.070 – Standards for review and approval of hillside development permit.~~

~~A. In reviewing an application the reviewing body shall consider the following factors: slope, soil instability, drainage, soil characteristics, seismic factors, existing and future residential development, view shed, access, potential traffic congestion, fire risk, noise, glare, wildlife, dust and impact on existing vegetation.~~

~~B. The site plan shall provide an appropriate living space on a site consistent with the site's constraints in relation to the review and approval criteria set forth in this section.~~

~~C. A building site which is adjacent to a steep slope not abutting a ridge shall be located at the lowest possible elevation on the site.~~

~~D. Residential development that is adjacent to a steep downslope shall be designed so that the principal and accessory structures blend with the topography.~~

~~8.136.080 – Additional development requirements.~~

~~The reviewing body may impose additional restrictions or requirements or both on a parcel of hillside land if it finds that the parcel requires protection because of its prominence and location or determines that there may be exceptional hazards to its development. These additional restrictions or requirements must be consistent with the purposes of this chapter.~~

~~8.136.090 – Dedication.~~

~~The reviewing body may require as a condition of approval the dedication of an open space easement, development rights or similar enforceable restrictions related to any open space area to be excluded from development.~~

8.136.010 Purpose

This chapter describes the process for the Town to approve a development project in a hillside area through either: 1) a Hillside Development Permit; or 2) additional findings for the approval other discretionary permits required by the Town. These approval requirements are intended to ensure that development in hillside areas preserves Moraga's scenic qualities, minimizes environmental impacts, and reduces exposure to geologic and other hazards.

8.136.020 Applicability

The approval requirements established in this chapter apply to any of the following types of development where such development is subject to a building permit, and where the area containing the development has an average slope of 20 percent or more:

- A. Construction of a new primary structure.
- B. Construction of an accessory building or structure over 400 square feet in size.
- C. Expansion of the footprint of an existing building or structure where the addition would add more than 500 square feet, or 35 percent of the footprint of the habitable building area, whichever is smaller.
- D. A project involving grading or construction of retaining walls where the project would be subject to Design Review.

8.136.030 Approval Requirements

- A. **Hillside Development Permit.** Where a proposed development project subject to the requirements of this chapter does not require a use permit, grading permit, subdivision map, or other discretionary permit, the project shall require a Hillside Development Permit as described in Section 8.136.040 (Hillside Development Permits).
- B. **Other Discretionary Permits.** Where a proposed development project subject to the requirements of this chapter requires a use permit, grading permit, subdivision map, or other discretionary permit, the review authority may approve the permit only after making the findings in Section 8.136.050 in addition to the findings required for the other discretionary permit(s).

8.136.040 Hillside Development Permits

- A. **Review Authority.** The review authority for a Hillside Development Permit is the authority charged with the duty of passing upon any land use entitlement, permit, or

design review approval, as applicable. In the case of an application which requires only building permit approval, the reviewing body is the Zoning Administrator.

- B. Application Submittal and Review.** Hillside Development Permit applications shall be filed and reviewed in compliance with Article 1 (Applications) of Municipal Code Chapter 8.12 (Administrative Procedures). The application shall include the information and materials required in a form specified by the Planning Department, together with all required application fees.
- C. Public Notice and Hearing.** The review authority shall provide public notice, review and act on a Hillside Development Permit in compliance with Municipal Code Chapter 8.12 (Administrative Procedures). Where the Zoning Administrator is the review authority, the procedure for review shall follow that required for Design Review approval set forth in Municipal Code Section 8.72.090, except that the findings for approval set forth in Section 8.136.060 shall apply.
- D. Conditions of Approval.** The review authority may attach conditions of approval to a Hillside Development Permit to achieve consistency with the General Plan, Municipal Code, and any applicable specific plan or area plan adopted by the Town Council.
- E. Appeals.** Decisions of the review authority on Hillside Development Permits may be appealed as described in Article 4 (Decision and Appeals) of Chapter 8.12 (Administrative Procedures).

8.136.050 Findings for Approval

To approve a hillside development permit subject to the requirements of this chapter, the Town shall make all of the following findings in addition to findings required for any other discretionary permit:

- A. The proposed development is consistent with the General Plan, Municipal Code, Design Guidelines, and any applicable specific plan or area plan adopted by the Town Council.**
- B. The proposed development is designed to minimize visual impacts, protect scenic resources, and maintain Moraga's semi-rural feel to the greatest extent possible.**
- C. The proposed development protects biological, hydrological, and other environmental resources to the greatest extent possible**
- D. The proposed development is designed and located to minimize exposure to landslides and other geologic hazards.**
- E. The proposed development minimizes soil displacement and utilizes grading techniques that blend with natural slopes and achieve a natural appearance.**
- F. The proposed development will not be detrimental to the public health, safety, and welfare.**

TITLE 14 – GRADING

14.04.030 - Grading general.

Grading is generally allowed except that a permit is required pursuant to Section 14.04.031 of this chapter. All grading requiring a permit shall comply with the provisions of this chapter. ~~All grading on hillside land shall require a hillside development permit in accordance with Section 08.136.040(B) of this code regardless of whether or not a grading permit is required.~~

ATTACHMENT F

AMENDED ZONING MAP

AMENDED ZONING MAP

WILL BE PROVIDED AT STEERING COMMITTEE MEETING

ATTACHMENT G

DESIGN GUIDELINES AMENDMENTS

**ATTACHMENT F:
AMENDMENTS TO THE MORAGA DESIGN GUIDELINES**

Additions are shown in underline and deletions in ~~strikethrough~~ text.

4 PROTECT RIDGELINES AND HILLSIDE AREAS (RH)

- ~~RH1 — Protect ridgelines from development.~~
- ~~RH2 — New development should be sited in areas that are least sensitive in terms of environmental and visual resources, including areas of flat or gently sloping topography.~~
- ~~RH3 — In hillside and ridgeline areas, building sites should be sited so that visual impacts are minimized.~~
- ~~RH4 — The roofline of all hillside buildings should blend with or follow the ridgeline's natural contour.~~
- ~~RH5 — Hillside buildings and other improvements should have a low visual profile. Dense native landscaping should be provided to blend structures with the natural setting.~~
- ~~RH6 — Hillside grading shall blend with natural slopes and be contoured to achieve a natural appearance. The use of retaining walls and other man-made grading features to mitigate geologic hazards should be avoided.~~
- ~~RH7 — On hillside lots fire safe landscaping should be used. Landscaping should be distributed around structures to provide screening from off-site views. Adequate water supplies and fire-fighting access shall be provided.~~
- ~~RH8 — In hillside areas, solid board privacy fences should only be used when located close to the residence. Site perimeter and other distant fencing should remain visually open (i.e., split rail or deer fencing) in order to minimize the visual "ribbon-like" effect of fencing on the hillsides.~~
- ~~RH9 — Larger lots should be created on steeper slopes. Density should be minimized in areas prone to seismic and other geologic hazards.~~
- ~~RH10 — Preserve both close-up and distant views of the natural hillside and ridgeline landscape as seen from valley areas.~~
- ~~RH11 — All new structures located in hazardous fire areas (such as hillsides) should be constructed with fire resistant exterior materials consistent with applicable building codes and standards.~~

This section establishes design standards and guidelines for development in hillside areas in Moraga. A hillside area is defined as either:

- A parcel or site with an average slope of twenty (20) percent or greater; or
- The area of disturbance of a proposed development project with an average predevelopment slope of twenty (20) percent or greater.

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

Unlike other sections in the Moraga Design Guidelines, this section contains both standards and guidelines, defined as follows:

Standards are mandatory requirements that apply to all projects. These requirements are measurable and quantitative standards similar to height, setback, and other development standards in the Zoning Code. Projects may deviate from standards only with Planning Commission approval of a Variance.

Guidelines provide direction on the more qualitative aspects of a project and may be interpreted with some flexibility. A guideline establishes a design objective and allows for alternative approaches to achieve this objective. The Town may grant an exception to a guideline in accordance with the process described on page 7 of the Design Guidelines.

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

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

RH1: SUBDIVISIONS

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

Guidelines:

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

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

- Unstable soil, landslide susceptibility and other geologic hazards.
- Areas highly visible from a scenic corridor.
- Significant natural landforms including rock outcroppings, prominent knolls, bluffs, ravines, and other similar geologic features.
- Steep slope areas.
- Native, historic, and orchard trees as defined in Moraga Municipal Code Chapter 12.12, sensitive vegetation, wetlands, riparian areas, and special status species habitat.
- Wildfire hazard areas.
- Waterways and flood hazard areas.

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

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

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



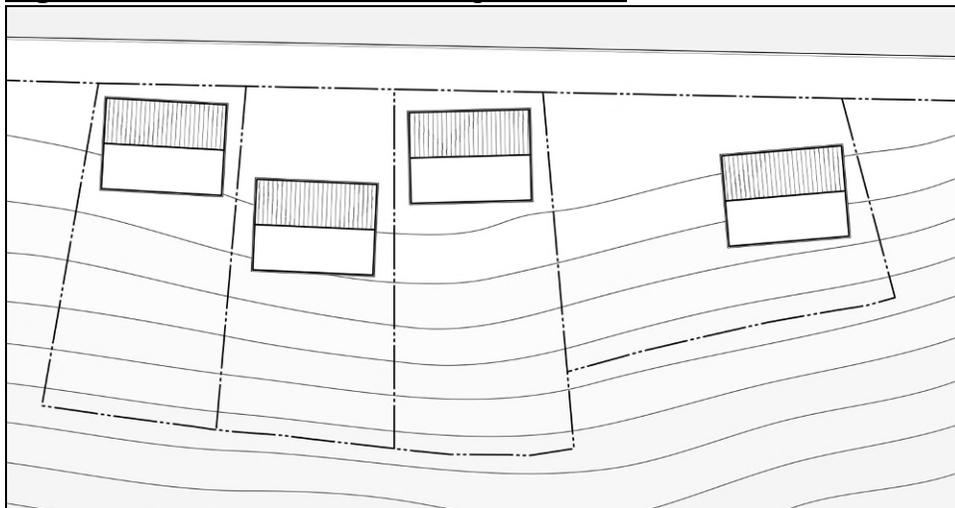
Variation in the placement, orientation, setbacks, and architectural styles of homes creates visual interest in Moraga hillside subdivision

Figure RH-1: Variation in Building Height



Variation in building heights contributes to a more organic design aesthetic

Figure RH-2: Variation in Building Setbacks



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

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

RH2: STREETS AND SIDEWALKS

See also Guidelines: ID13.3, ID13.4, ID: 13.9

Guidelines:

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

RH2.2 Natural Contours. Streets should follow the natural contours of the land and may not be placed perpendicular to contour lines.

RH2.3 Curbside Parking. To reduce grading and allow for narrower streets, curbside parking lanes are discouraged. Guest parking should be provided through shared parking bays where possible.

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

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

RH3: BUILDING PLACEMENT AND FOUNDATION DESIGN

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

A. Building Placement

Guidelines:

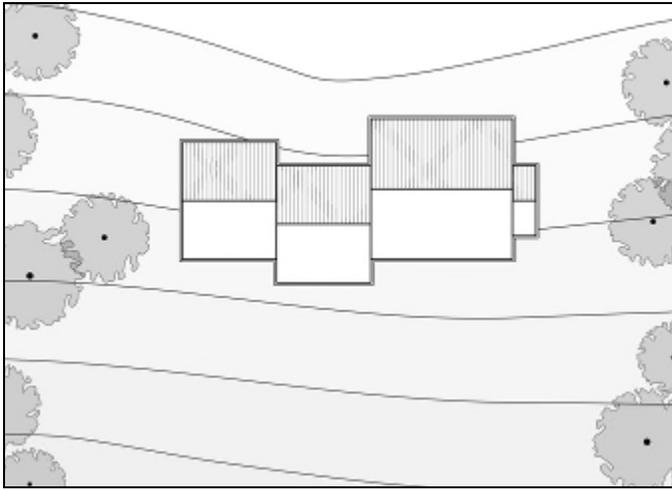
RH3.1 Minimize Grading and Avoid Natural Features. Buildings should be located on lots in a manner that minimizes the need for and total amount of grading and avoids disturbance of natural features.

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

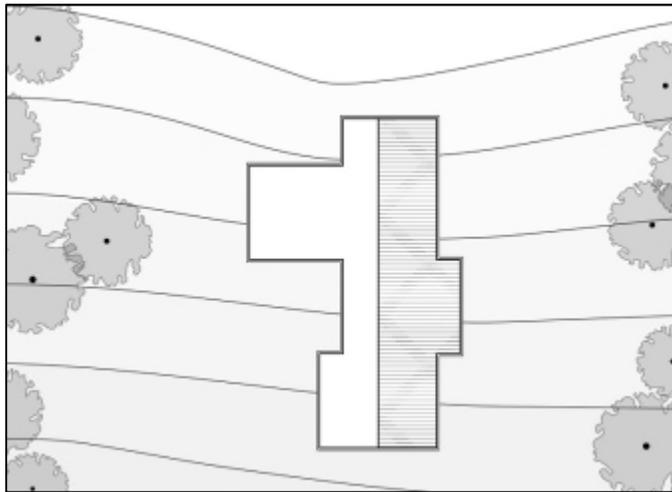
RH3.3 Proximity to Front Property Lines. On downhill lots, buildings should be located close to the front property line to reduce building mass that hangs over or steps down the slope.

Figure RH-3: Conform with Natural Topography

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



DO THIS



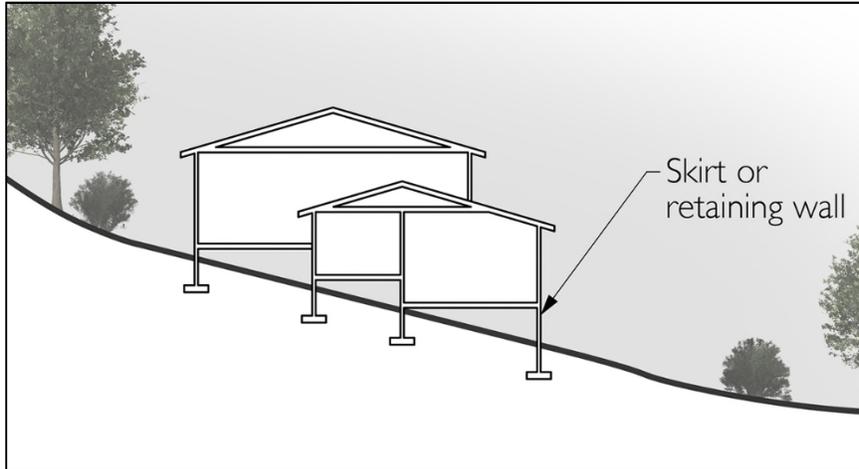
DON'T DO THIS

B. Foundation Design

Standards:

RH3.4 Stepped Design. Where the existing slope of the development site is 20 percent or steeper, dwellings shall exhibit a stepped design that follows the natural terrain and does not stand out vertically from the hillside. Dwellings shall be designed with a stepped, pier and grade beam, or a custom foundation to limit grading and alterations to the natural terrain. The Town may grant an exception to this stepped design requirement in accordance with standard RH 3.4 below.

Figure RH-4: Stepped Foundation



Stepped foundation helps to minimize appearance of mass and bulk.

RH3.4 Exception to Stepped Design Requirement. The Town may grant an exception to the stepped design requirement in standard RH3.4 above upon finding that a single-level padded lot will produce a superior design in greater conformance to the Town's design goals for hillside development. If an exception is granted, the single-level padded project shall comply with the following requirements:

- Significant vegetation, rock outcroppings, or other important natural features as determined by the review authority shall not be removed or disturbed.
- The vertical height of any resulting graded slope or combination retaining wall and slope shall not exceed 10 feet, or have a slope greater than 3:1.
- Pads shall be the minimum size to accommodate the structure and a reasonable amount of open space.



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

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

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

RH4: BUILDING DESIGN

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

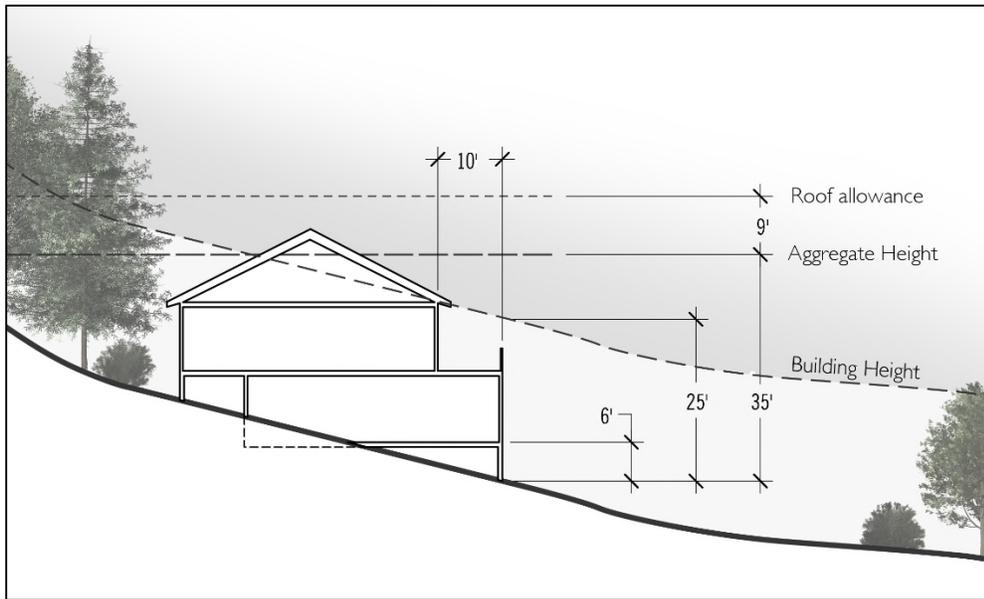
A. Building Height and Stepbacks

Standards:

RH4.1 Building Height. As shown in Figure RH-5, building height shall not exceed a maximum of 25 feet and aggregate building height may not exceed 35 feet. A roof element may extend above the 35-foot aggregate height limit to a maximum of 45 feet. Building height is measured from the highest point of the building to the existing grade, approved subdivision grade, or approved modified grade directly beneath the building. Aggregate building height is measured from the highest point of the roof or parapet wall to the lowest point of the foundation at the approved grade.

RH4.2 Stepbacks. The height of the tallest vertical plane of down slope building elevations shall not exceed 20 feet measured from finished grade. Walls extending above this 20-foot limit shall be stepped back a minimum of 10 feet.

Figure RH-5: Building Height



Maximum building height and setback standards helps a building blend into its natural setting



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

RH4.3 Underfloors (Skirt Walls). The vertical distance between the lowest finished floor of an elevation of a building and the finished grade may not exceed 6 feet.

A. Building Mass and Volume

Guidelines:

RH4.4 Building Mass. Building design should incorporate techniques to effectively reduce the appearance of mass, bulk and volume where visible from a public place or neighboring property. Such techniques include, but are not limited to:

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

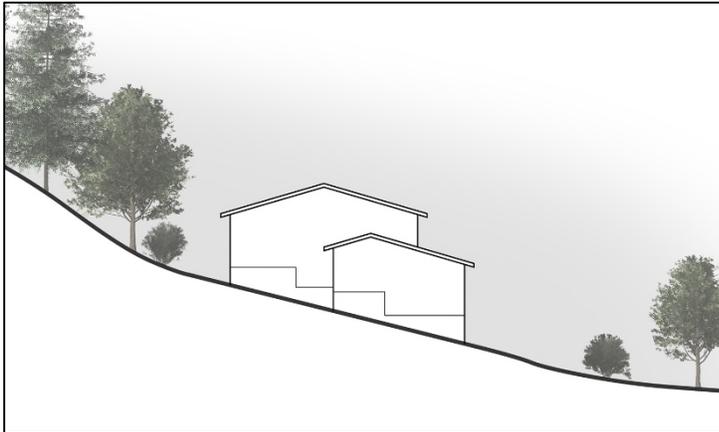
B. Building Elements

Guidelines:

RH4.5 Roofs. Roofs should be designed to minimize the visual prominence of buildings and complement the surrounding landscape. This may be accomplished by:

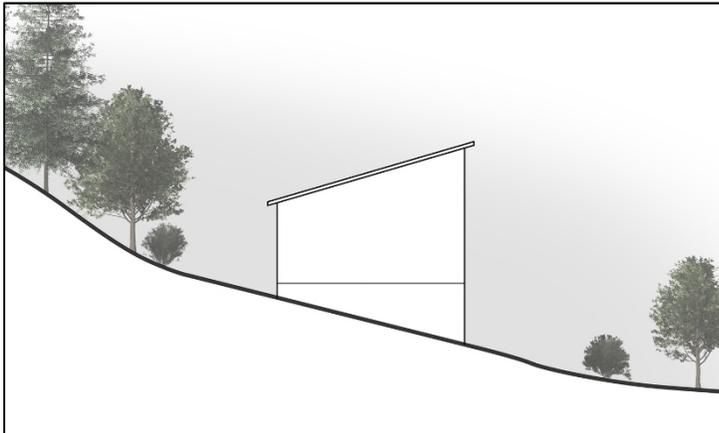
- Orienting the slope of the main roof in the same direction as the natural slope of the terrain.
- Minimizing the use of long, linear roof lines.
- Dividing roof forms into a series of smaller components that reflect the irregular forms of the surrounding natural features.
- Incorporating roof colors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

Figure RH-6: Roof Design



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

DO THIS



DON'T DO THIS



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

RH4.6 Exterior Colors. Exterior colors should be coordinated with the predominant colors and values of the surrounding landscape to minimize contrast of structures with their background when viewed from scenic corridors and other public areas. Exterior colors should not exceed a reflectivity value of 50. Contrasting color accents shall be kept to a minimum.

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

RH5: GRADING

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

Guidelines:

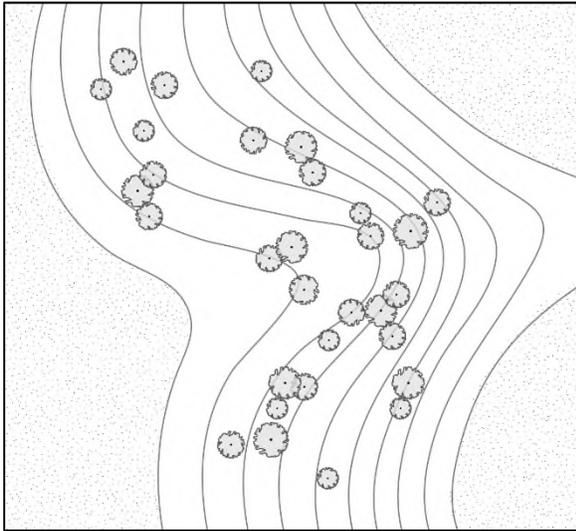
RH5.1 Contour Grading. Contour grading techniques should be used to blend with natural slopes and achieve a natural appearance. The following concepts shall be utilized:

- Hard edges left by cut and fill operations shall be given a rounded appearance that closely resembles the natural contours of the land.
- Manufactured slopes adjacent to driveways and roadways shall be modulated by berming, regrading, and landscaping to create visually interesting and natural appearing streetscapes. However, preservation of trees and elimination of retaining walls is a priority.
- Where cut and fill conditions are created, slopes shall be varied rather than left at a constant angle, which creates an unnatural, engineered appearance.
- The angle of any graded slope shall be gradually transitioned to the angle of the natural terrain. Creation of new grades slopes, significantly steeper than local natural slopes shall be minimized.

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

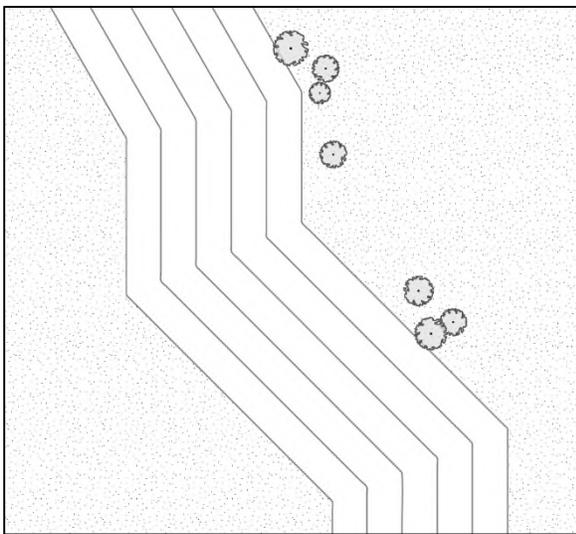
RH5.3 Restoration of Original Topography. After completion of construction, areas of disturbance should be restored as closely as possible to their original topography.

Figure RH-7: Contour Grading



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

DO THIS



DON'T DO THIS

RH6: LANDSCAPING

Guidelines:

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



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

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

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

RH6.4 Formal Gardens and Turf Areas. Formal gardens (including ornamental plantings, hardscape, and turf areas) should be limited to locations immediately adjacent to the house such as entry ways or small gardens at the rear.

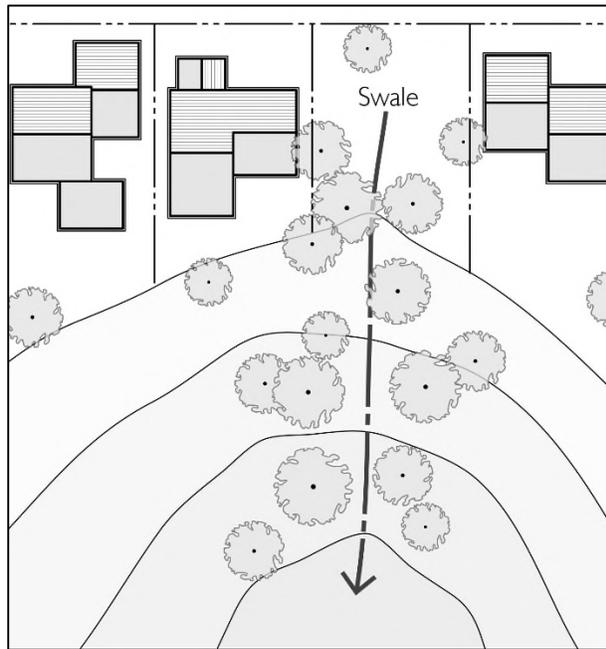
RH6.5 Location of Plant Types. Irrigated landscaping should be concentrated adjacent to the dwelling. Landscaping should transition to more natural planting on the remainder of the lot. Plant species located further than 50 feet from the primary residence shall be indigenous and appropriate for the immediate natural habitat.

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

RH6.3 New Trees.

- a) Trees should be planted along contour lines in undulating groups to create grove effects which blur the distinctive line of the graded slope.
- b) Trees planted in proximity to ridgelines should be similar in height and form to that of naturally occurring species in the vicinity, and when naturally occurring trees and vegetation does not protrude above a ridgeline, follow a similar pattern.
- c) When possible, locate trees at the edges of swale areas and bioretention facilities to more closely reflect natural conditions and gather surface runoff for plant irrigation.

Figure RH-8: New Trees



New trees planted at edges of swale reflect natural conditions

RH7: DRAINAGE

See also guidelines SRC9, L2.3, ID12

Guidelines:

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

RH7.1 Naturalizing Treatment. Manmade drainage channels should receive a naturalizing treatment such as rock and landscaping so that the structure appears as a natural part of the environment.

RH7.1 Runoff Dispersion. Runoff should be dispersed within the subject property through landscape infiltration to the greatest extent feasible. Runoff concentration that requires manmade drainage channels or engineered drainage facilities should be avoided.

RH7.1 Visibility. Manmade drainage channels should be placed in the least visible locations possible.

RH8: SITE ELEMENTS

A. Driveways

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

Guidelines:

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

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

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

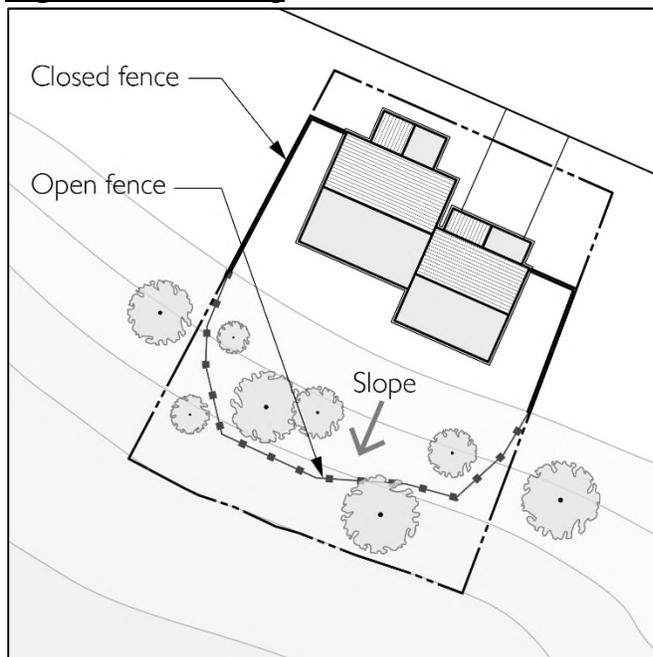
B. Fences

Guidelines:

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

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

Figure R9: Fencing



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

C. Retaining Walls

See also Guidelines ID11.

Guidelines:

RH8.6 Limited Use. Retaining walls should not be used to create large, flat yard areas. The limited use of retaining walls may be allowed when it can be demonstrated that their use will substantially reduce the amount of grading.

RH8.7 Materials. Retaining walls that are visible from a public street should have a vener of natural stone, stained concrete, or textured surface to help blend the wall with the natural hillside environment and to promote a semi-rural character.

RH8.8 Follow Topography. Retaining walls should blend with the natural topography, follow existing contours, and be curvilinear to the greatest extent possible.

RH8.9 Landscaping. Landscaping should be provided adjacent to retaining walls visible from a public street and should include a combination of native trees and shrubs to screen the wall.

D. Outdoor Lighting

See also Guideline ID6.

Guidelines:

RH8.10 Site Lighting. Outdoor lighting on private property which is visible from public streets should be indirect or incorporate full shield cut-offs. Light sources shall not be seen from adjacent properties or public rights-of-way.

RH8.11 Street Lighting. In order to minimize light pollution and maintain enjoyment of the night sky in hillside areas, street lighting should not exceed the minimum illumination required by the Town and other public agencies unless determined necessary by the Town to protect the public health, safety and welfare.

ATTACHMENT H

MAXIMUM FAR AMENDMENTS

**ATTACHMENT G:
AMENDMENTS TO DESIGN GUIDELINES APPENDIX D TO ESTABLISH MAXIMUM FLOOR
AREA RATIO AND HOME SIZE FOR LOTS 20,000 SQUARE FEET TO 1 ACRE, VISIBLE
FROM PUBLIC PLACES**

The following addition is made to Section V: Maximum Floor Area of the Single Family Residential Floor Area Ration (FAR) Guidelines in Appendix D to the Moraga Design Guidelines. New language and table is added after the Maximum Floor Area Table beginning on page 66 of the Moraga Design Guidelines.

For proposed homes visible from a public place on lots with an average slope of 15 percent or more, the maximum permitted floor area ratio (FAR) and home size on lots 20,000 square feet to 1 acre shall be as shown in Table 2. The maximum size of a home on a lot greater than 1 acre shall be as determined as necessary by the Design Review Board and/or Planning Commission to comply with Town policies applicable to the size and scale of proposed new homes.

Table 2: Maximum FAR – Lots 20,000 Sq. Ft. to 1 Acre

<u>Lot Size (sq. ft.)</u>	<u>FAR</u>	<u>Home Size (acres)</u>
<u>20,000</u>	<u>0.24</u>	<u>4.810</u>
<u>21,000</u>	<u>0.23</u>	<u>4.920</u>
<u>22,000</u>	<u>0.23</u>	<u>5.000</u>
<u>23,000</u>	<u>0.22</u>	<u>5.072</u>
<u>24,000</u>	<u>0.21</u>	<u>5.137</u>
<u>25,000</u>	<u>0.21</u>	<u>5.190</u>
<u>26,000</u>	<u>0.20</u>	<u>5.230</u>
<u>27,000</u>	<u>0.20</u>	<u>5.267</u>
<u>28,000</u>	<u>0.19</u>	<u>5.298</u>
<u>29,000</u>	<u>0.18</u>	<u>5.333</u>
<u>3,0000</u>	<u>0.18</u>	<u>5.362</u>
<u>31,000</u>	<u>0.17</u>	<u>5.382</u>
<u>32,000</u>	<u>0.17</u>	<u>5.400</u>
<u>33,000</u>	<u>0.16</u>	<u>5.413</u>
<u>34,000</u>	<u>0.16</u>	<u>5.425</u>
<u>35,000</u>	<u>0.16</u>	<u>5.438</u>
<u>36,000</u>	<u>0.15</u>	<u>5.444</u>
<u>37,000</u>	<u>0.15</u>	<u>5.451</u>
<u>38,000</u>	<u>0.14</u>	<u>5.457</u>
<u>39,000</u>	<u>0.14</u>	<u>5.465</u>
<u>4,0000</u>	<u>0.14</u>	<u>5.471</u>
<u>41,000</u>	<u>0.13</u>	<u>5.481</u>
<u>42,000</u>	<u>0.13</u>	<u>5.490</u>
<u>43,000</u>	<u>0.13</u>	<u>5.498</u>
<u>43,560</u>	<u>0.13</u>	<u>5.500</u>

ATTACHMENT I

RIDGELINE PROTECTION STANDARDS STUDIES

Ridgeline Protection Standards Study

As part of the Hillsides and Ridgelines project, Town staff and consultants prepared visual simulations to test different ridgeline protection standards. The purpose of this study was to identify the preferred standards to produce an adequate visual buffer between new development and ridgelines as perceived by an observer from an adjacent street.

As shown in the figure on the following page, two vantage points were used for this study, both on Rheem Boulevard: 1) The Rancho Laguna II site, and 2) the Painted Rock site.

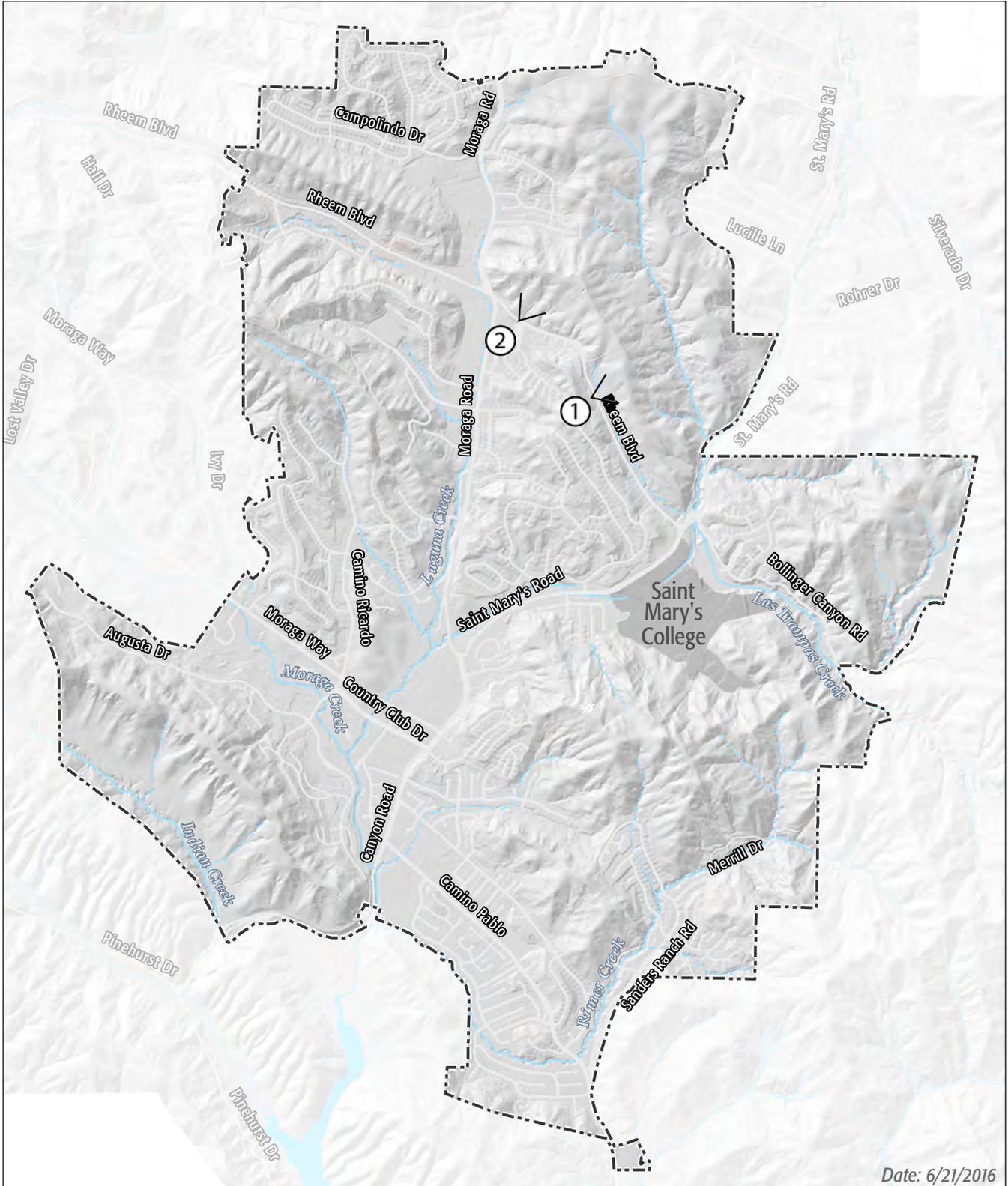
From these two vantage points, visual simulations tested the following four standards:

- **Standard 1: 200-foot Buffer.** The structure is located 200 feet from the ridge centerline, as measured horizontally in plan view.
- **Standard 2: 35-foot Vertical Separation.** The structure is located below the ridgeline so that a vertical separation of at least 35 feet is provided between the top of the structure and the ridgeline
- **Standard 3: 10-degree Vision Plane.** The structure may not project outside of a plane sloping downward at a 10-degree angle from the horizontal intercept of the ridgeline.
- **Standard 4: 35-percent Hillside Visibility.** The structure is located so that a minimum of 35 percent of the hillside remains visible between the top of the structure and the ridgeline.

As shown in the attached visual simulations, Standard 1 (200-foot buffer) and Standard 2 (35-foot vertical separation) produces very different results when applied to the two vantage points. For vantage point 2, a building could not be placed on the site consistent with Standard 3 (10-degree vision plane).

Given these results, Town staff and consultants tested a model where a building was placed on the site so that approximately one-third of the perceived vertical height of the hillside remains visible between the top of the structure and the ridgeline. These results of this model are shown in the visual simulations for Standard 4 (35-percent Hillside Visibility). To achieve this result for vantage point 1, the home is placed 470 feet horizontally from the ridgeline and 110 feet vertically below the ridgeline. For vantage point 2, the home is placed 985 feet horizontally from the ridgeline and 188 feet vertically below the ridgeline.

Because of the variation in measurable standards to produce the desired outcome at the two vantage points, staff and consultants recommend requiring development in proximity to Significant Non-MOSO Ridgelines to comply with both Standard 1 (200-foot buffer) and Standard 4 (35-percent hillside visibility). As reflected in the draft amendments to Zoning Code Chapter 8.128 (Ridgeline Protection), an applicant would need to demonstrate compliance with the 35-percent hillside visibility standard through the preparation of visual simulations and the installation of story poles prior to project approval.



Date: 6/21/2016

Data Sources: Town of Moraga, 2013; Contra Costa County, 2013; USGS, 2006, 2013; PlaceWorks, 2016.

-  Town Boundary
-  Major/Permanent Stream
-  Minor/Intermittent Stream
-  Vantage Points

VANTAGE POINTS FOR HILLSIDE VISIBILITY STANDARDS



Standard 1: 200-foot Buffer from Ridge Centerline



Vantage Point 1: Rancho Laguna



Vantage Point 2: Painted Rock

Standard 2: 35-foot Vertical Separation



Vantage Point 1: Rancho Laguna



Vantage Point 2: Painted Rock

Standard 3: 10-Degree Vision Plane

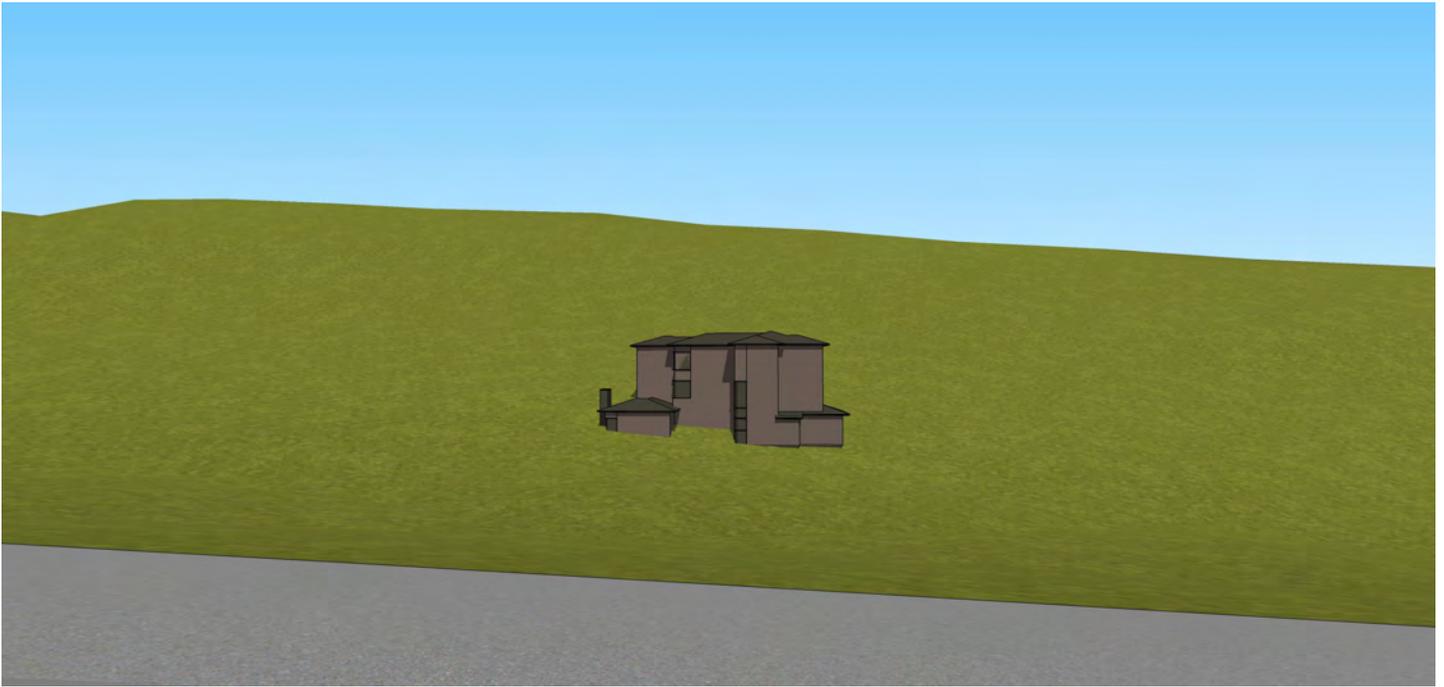


Vantage Point 1: Rancho Laguna

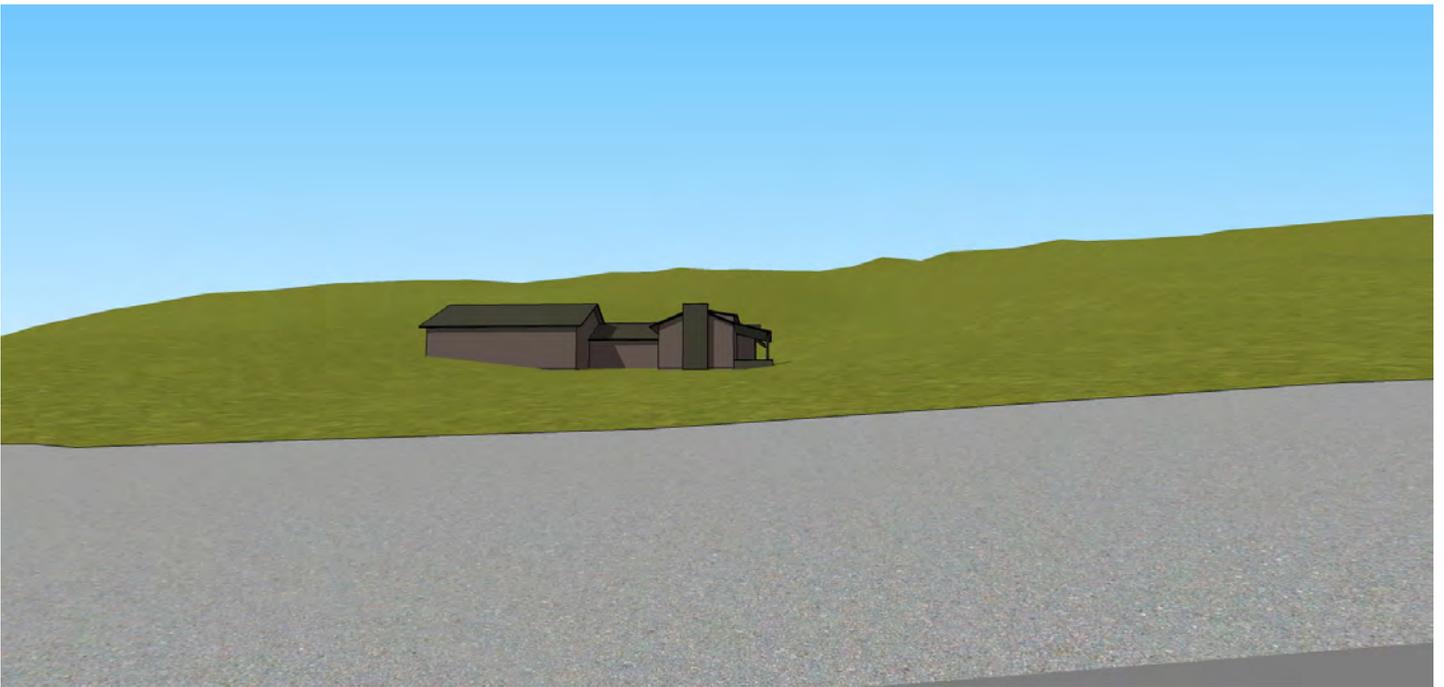
Building Cannot Comply with Standard

Vantage Point 2: Painted Rock

Standard 4: 35 Percent Visible Hillside



Vantage Point 1: Rancho Laguna



Vantage Point 2: Painted Rock

ATTACHMENT J

MOSO ORDINANCE

APPENDIX E

TEXT of the MORAGA OPEN SPACE ORDINANCE (MOSO)

The people of the Town of Moraga DO ORDAIN as follows:

SECTION 1. Short Title.

This ordinance shall be known as the "Moraga Open Space Ordinance".

SECTION 2. Findings.

The people of the Town of Moraga find and declare the following:

- a. The character and feel of the Town of Moraga is contingent upon the preservation of a substantial amount of open space, the protection of the scenic views of major and minor ridgelines, and the regulation of development in sensitive open space areas.
- b. The Town has experienced significant development pressures in recent years which threaten the amount and quality of open space resources of the Town and which adversely affect the capacity of the Town's public facilities, such as drainage and traffic facilities, and are otherwise altering the character of the community.
- c. It is the intent of the people of the Town to protect the remaining open space resources within the Town in the interest of: (1) preserving the feel and character of the community; (2) ensuring the adequacy of recreational opportunities which are contingent on such open spaces; (3) ensuring the protection of local and regional wildlife resources which are dependent on the habitat provided by such open space; (4) ensuring that development does not occur in sensitive viewshed areas; (5) protecting the health and safety of the residents of the Town by restricting development on steep or unstable slopes; and (6) ensuring that development within the Town is consistent with the capacity of local and regional streets and other public facilities and does not contribute to the degradation of local or regional air quality.
- d. It is the purpose of this Ordinance to revise and augment the policies of the Town recorded in the General Plan and the ordinances of the Town relating to the preservation of open space and protection of ridgelines. This Ordinance is consistent with and implements the policy in General Plan Amendment 3, enacted November 18, 1981, which established a policy of minimum lot size designations of twenty (20), ten (10), and five (5) acres in some open space areas.
- e. In addition to the reasons described above, this Ordinance is necessary to promote the general health, safety and welfare of the residents of Moraga.

SECTION 3. Protection of Open Space

- a. The following policy is added to Goal 1 of the Open Space Element of the General Plan:

"3) Any use of or development on lands designated in the General Plan or by this Ordinance as 'Open Space Private' or 'Public Open Space-Study' (hereinafter 'Open Space Lands') shall be limited to a maximum density of one (1) dwelling per twenty (20), ten (10), or five (5) acres, but in no case shall density on such lands exceed one (1) dwelling unit per five (5) acres. Areas identified as 'high risk' areas, as defined in this Ordinance, shall be limited to a maximum density of one (1) dwelling unit per twenty (20) acres. Density transfers from Open Space Lands to other lands shall be encouraged; provided that in no event shall dwelling units be transferred to Open Space Lands or to 'high risk' areas. The Town Council shall identify 'high risk' areas after taking into account soil stability, history of soil slippage, slope grade, accessibility, and drainage conditions."

- b. Policy Number 1 of Goal 4 of the Open Space Element of the General Plan is revised to read as follows:

"1) Development shall be prohibited on slopes with grades of twenty percent (20%) or greater and on the crests of minor ridgelines. The Town Council shall reduce the allowable densities on slopes of less than twenty percent (20%) through appropriate means such as requiring proportionally larger lot sizes or other appropriate siting limitations. For the purposes of this paragraph, the term 'minor ridgeline' means any ridgeline, including lateral ridges, with an elevation greater than 800 feet above mean sea level, other than a major ridgeline."

- c. The following policy is added to Goal 1 of the Land Use Element of the General Plan:

"8) Notwithstanding any other provision of the General Plan, any development on lands depicted in the General Plan or by this Ordinance as 'Public Open Space-Study' or 'Private Open Space' shall be limited to a maximum density of one (1) dwelling per twenty (20), ten (10), or five (5) acres, but in no case shall density on such lands exceed one (1) dwelling unit per five (5) acres. Areas identified as 'high risk' areas, as defined in this Ordinance, shall be limited to a maximum density of one (1) dwelling unit per twenty (20) acres."

- d. Section 8-3805 is added to chapter 38 of the Zoning Ordinance of the Town of Moraga as follows:

"Section 8-3805. Open Space Density.

"(a) Notwithstanding any other provision of the ordinances of the Town of Moraga: (1) all land within the Town of Moraga designated 'Public Open Space-Study' or 'Private Open Space' (hereinafter referred to as 'Open Space Lands') in the Moraga General Plan as such Plan existed on October 16, 1985, or which is designated such by this Ordinance is hereby zoned 'Open Space' ('OS'); and (2) any development on such Open Space Lands shall be limited to a maximum density of one (1) dwelling unit per twenty (20), ten (10), or five (5) acres, but in no case shall density on such lands exceed one (1) dwelling unit per five (5) acres. Areas identified as 'high risk' areas, as defined in this Ordinance, shall be limited to a maximum density of one (1) dwelling unit per twenty (20) acres. The Town Council may authorize density transfers from Open Space Lands to other lands pursuant to the procedures set forth in Chapter 47 herein; provided that in no event shall dwelling units be transferred to Open Space Lands or to high risk areas. In determining the appropriate density transfer credit applicable

to any such Open Space Lands, the Town Council may authorize the transfer of a net density of no greater than one (1) dwelling unit per ten (10) acres.

"Development shall be prohibited on slopes with grades of twenty percent (20%) or greater and on the crests of minor ridgelines. The Town Council shall reduce the allowable densities on slopes of less than twenty percent (20%) through appropriate means such as requiring proportionally larger lot sizes or other appropriate siting limitations. For the purpose of this Ordinance, the term 'minor ridgeline' means any ridgeline, including lateral ridges, with an elevation greater than 800 feet above mean sea level, other than a major ridgeline.

"(b) Development shall be prohibited on minor ridgelines immediately adjacent to and extending into Open Space Lands if slopes exceed twenty percent (20%) and elevation of said ridges is greater than 800 feet above mean sea level."

- e. Section 8-5702 of Chapter 57 of the Zoning Ordinance of the Town of Moraga is amended as follows:

"(a) Development shall be prohibited within 500 feet of the centerline of a major ridge (as defined in subsection (b)) located in an area designated on the General Plan as 'Private Open Space' or 'Public Open Space-Study' and development shall be subject to strict design review control in all other ridge areas. A road, together with the attendant underground utilities, may cross a ridge, if the Planning Commission finds that the crossing is necessary for the orderly development of the Town and does not otherwise conflict with the Municipal Code.

"(b) For the purpose of this section, the centerline of a major ridge is the line running along the highest portion of the ridge located within those areas designated on the General Plan as 'Private Open Space' or 'Public Open Space-Study.'"

- f. Without limiting the generality of the Moraga Open Space Ordinance, General Plan Amendments No. 6, adopted in resolution No. 28-83 on June 15, 1983, and No. 8, adopted in Resolution No. 39-83 on September 7, 1983, are hereby repealed and are of no further force or effect. Such lands as were affected by those amendments are hereby given a General Plan designation of "Public Open Space-Study" and are zoned "Open Space" as provided in Section 3d above.

SECTION 4. Applicability.

The provisions of this Ordinance shall apply to any person who, as of the date of the election has not (a) obtained a building permit for the development project, and (b) incurred substantial construction expenses in good faith reliance on such building permit.

SECTION 5. Implementation; Interim Development Controls; Interpretation.

- a. Promptly after the enactment of this Ordinance, the Town Council shall adopt such revisions to the General Plan and the Zoning Ordinance as may be necessary to fully implement the Moraga Open Space Ordinance or to ensure the internal consistency of the General Plan or the consistency of the Moraga Open Space Ordinance with the General Plan; provided that the Town Council shall not amend or modify any requirement of this Ordinance without approval by the electorate at a general election.

- b. Until the full implementation of the Moraga Open Space Ordinance as contemplated by subsection (a) or until January 1, 1987, whichever occurs first, the Town Council, or any other reviewing authority, shall not issue any permit or otherwise authorize or approve any use or development, including but not limited to divisions of land, with a density greater than one (1) dwelling unit per twenty (20) acres on: (1) any lands designated in the General Plan or by this Ordinance as "Open Space", "Public Open Space-Study" or "Private Open Space", or (2) major or minor ridgelines, or on slopes greater than twenty percent (20%), or on slopes which are unstable or subject to erosion or deterioration. Nothing in this subsection is intended to authorize issuance of any permit or approval of any development except in compliance with Section 3d above.
- c. In the event of any conflict between the Moraga Open Space Ordinance and the Zoning Ordinance, the provisions of the Moraga Open Space Ordinance shall prevail.

SECTION 6. Severability.

If any section, subsection, paragraph, subparagraph, clause or phrase of this Ordinance, or any amendment or revision of this Ordinance is, for any reason, held to be invalid or unconstitutional, the remaining sections, subsections, paragraphs, subparagraphs, clauses and phrases shall not be affected, but shall remain in full force and effect.

ATTACHMENT K

**TOWN COUNCIL MARCH 6, 2016
MEETING MINUTES)**

**TOWN OF MORAGA
TOWN COUNCIL SPECIAL MEETING**

**March 10, 2016
MINUTES**

6:00 P.M. Special Meeting

Council Chambers and Community Meeting Room
335 Rheem Boulevard, Moraga, California 94556

1. CALL TO ORDER

The special meeting was called to order at 6:00 P.M. by **Mayor Michael Metcalf**.

ROLL CALL

Councilmembers present: Mayor Michael Metcalf, Vice Mayor Dave Trotter, and Councilmembers Phil Arth*, Teresa Onoda, and Roger Wykle
*Councilmember Arth arrived at 6:47 P.M.

Councilmembers absent: None

2. PUBLIC COMMENTS

There were no comments from the public.

3. ADOPTION OF MEETING AGENDA

PUBLIC COMMENTS OPENED

There were no comments from the public.

PUBLIC COMMENTS CLOSED

<p>ACTION: It was M/S (Trotter/Wykle) to adopt the Meeting Agenda, as shown. Vote: 4-0-1. Absent: Arth.</p>
--

4. ORDINANCES, RESOLUTIONS AND REQUESTS FOR ACTION

**A. Consider Preferred Policy Options for Hillside and Ridgelines Project:
Preferred Policy Options**

Planning Director Ellen Clark introduced David Early with PlaceWorks, the Consultant facilitating the Study Session with the Town Council on the Hillside and Ridgeline Project: Preferred Policy Options. By consensus, the Town Council conducted the meeting consistent with the format used for the Hillside and Ridgeline Steering Committee meetings.

David Early, PlaceWorks, outlined the purpose of the meeting to provide an update on the Hillside and Ridgeline Project and receive direction from the Town Council on its preferred approach on a number of issues. The Town Council was also being asked to consider changes to the Hillside and Ridgeline Steering Committee Charter and its composition.

Mr. Early explained that during the course of the Steering Committee and Planning Commission review, a general consensus had emerged on a number of the issues, suggesting a more limited need for extensive discussion or debate by the Town Council on that subset of issues. Given the volume of material to be addressed at this time, it was suggested that these five issues could be treated as consent type items where the Town Council could provide concurrence with the recommendation without substantial issue-by-issue discussion. For the other five issues, it was expected that the Town Council would need to discuss the issues and consider multiple options prior to providing staff and consultants with direction on a preferred approach. Each of the issues would be presented as a separate item with an opportunity for public comment and Town Council discussion.

The following five items were presented as "Consent Items" for which staff suggested there did not need to be a detailed presentation or discussion, except as requested:

MOSO Open Space Map
MOSO Ridgeline Map
High Risk Areas Map
Definition of Development
Hillside Development Permits

The remaining five topics were to be individually discussed by the Town Council:

Ridgeline Definition and Mapping
Ridgeline and Viewshed Protection
Steep Slope Limitations in MOSO Open Space
Remediation of High Risk Areas
Building Size on Large Lots

For each item, staff had provided a recommendation followed by a description of the issue, options considered by the Steering Committee, a description of the public comment, and staff responses to questions raised by the Planning Commission.

Mr. Early advised that the intent of the Hillside and Ridgeline Project had been to reduce the conflict over hillside development caused by disagreements over the meaning of specific development rules and regulations, to ultimately result in targeted amendments to the Town's hillside and ridgeline policies to address concerns with Town-wide regulations. The policies were not being considered for any specific development project or property, and the project did not concern general policies on the impacts from population growth.

Existing policies and regulations were being considered including the General Plan, Moraga Open Space Ordinance (MOSO) Ballot Initiative, MOSO Guidelines, Town Design Guidelines, Grading Ordinance, and Zoning Code. Specific text amendments to those existing policies and regulations would not be identified at this time and the consultants would later do the detailed work of creating amendments as necessary to each of the documents, which would be subject to Town Council direction, and require additional meetings with the Town Council and the Planning Commission.

Mr. Early identified the project process, reported that a background analysis had been prepared and completed, the Hillside Regulations Options had been identified in 2016, draft regulations would be prepared in mid-2016, and review and adoption was anticipated in late 2016. As part of the development regulations process, a series of options had been developed with input, and preferred options had been forwarded from the Hillside and Ridgeline Steering Committee to the Planning Commission. An Issues and Options Memorandum had been developed in May 2015, the Steering Committee had considered the options in May and June 2015, and an Options

Workbook had been created in August 2015 for review by the Hillside and Ridgeline Steering Committee and the public at large. Community presentations had been held in September 2015, and there had been a Planning Commission meeting on September 8, 2015, a public workshop on September 17, 2015, and focus groups in September 2015. All information from those sessions had been detailed and contained in the March 10, 2016 staff report. In addition to all that, three Steering Committee meetings had been held in November/December 2015, and three Planning Commission meetings had been held in January/February 2016.

Mr. Early recommended that the Town Council consider the options, the desires of Moraga residents, the original intent of the MOSO Initiative and Guidelines, property rights and taking implications, and the full range of community values expressed in the General Plan including environmental preservation, mobility, shopping and services, and housing. He again identified the five Consent Items to be discussed as one item. For the benefit of the audience, he detailed the recommendations for each item, as outlined in depth in the March 10, 2016 staff report and sought comments from the Town Council and the public on the five Consent Items.

Councilmember Onoda spoke to the recommendation to eliminate Hillside Development Permits (HDPs), and referenced a situation where a recent project on Donald Drive, which had not involved a grading permit, had required an HDP. She urged a review of past development review applications to ensure the requirement for that type of review.

Mr. Early advised that all effort had been made to review all past development permits. The only discovery had involved one permit for a slide down a hillside into a swimming pool which would not otherwise have gone through Town review. All of the other development projects that had received an HDP would have been subject to some other form of Town design review or other regulatory review.

Councilmember Wykle echoed the concerns with the recommendation to eliminate the HDP requirement, and asked that the consultants re-look at the provision where slopes greater than 20 percent but less than 50 cubic yards of dirt removed would not require a grading permit.

PUBLIC COMMENTS OPENED

Gordon Nathan, Moraga, spoke to the recommendation to eliminate the requirement for HDPs and agreed with the recommendation offered by Councilmember Wykle. He suggested it was a critical element of the HDP to address a 20 percent slope.

PUBLIC COMMENTS CLOSED

Mayor Metcalf referred to the significant discussion on the topic of eliminating HDPs during the Hillside and Ridgeline Steering Committee meetings, and found that the current HDP regulation was old, had been superseded by other regulations, and was redundant. During the Steering Committee meetings, the consultant had been asked to be very sure that everything would be addressed without the HDP.

Mr. Early explained that the consultants would thoroughly address that question again in detail. He added that the property at 1800 Donald Drive would also be part of that detailed review.

Vice Mayor Trotter stated he was prepared to move forward with the five Consent Items. As to the issue of HDPs, he understood the recommendation was conditional and could be revisited. He offered a motion to adopt the Consent Items.

ACTION: It was M/S (Trotter/Onoda) to adopt the policy options for the five Consent Items including: MOSO Open Space Map; MOSO Ridgeline Map; High Risk Areas Map; Definition of Development; and Hillside Development Permits. Vote: 4-0-1. Absent: Arth.

Assistant Town Attorney Karen Murphy clarified that all five Consent Items would be brought back; this was not the final action on the preferred policy options although the Town Council action was essentially moving the items forward for further review to the next step.

The Town Council started an individual discussion of the five remaining items.

Ridgeline Definition and Mapping

Mr. Early detailed the discussion of the Steering Committee and the Planning Commission on this topic, as outlined in the March 10, 2016 staff report.

Hillside and Ridgeline Steering Committee's Recommendation:

Define and map "Significant Non-MOSO Ridgeline" as the portion of any ridgeline outside of MOSO lands that is at or greater than 800 feet above mean sea level that forms the skyline when viewed from a "public place." "Public place" includes all public streets, parks and trails designated for public access and use.

Alternative Significant Non-MOSO Ridgeline Definition:

A Significant Non-MOSO Ridgeline is any ridgeline outside of MOSO Open Space that is highly visible from a designated scenic corridor, dominates the immediate landscape, and a portion of which is greater than 800 feet in elevation.

Mr. Early presented the staff recommendation for the Town Council to direct staff and consultants to address the Ridgeline Definition and Mapping issue by considering the following recommendations:

1. Defining and Mapping Significant Non-MOSO Ridgelines as "ridgelines that form the skyline when viewed from any public place." (Steering Committee's recommendation); or
2. Defining and Mapping Significant Non-MOSO Ridgelines as those ridgelines that are "highly visible and dominates the immediate landscape." (Staff and consultant alternative.)

Mr. Early noted that either definition could be used to create a map that reflected the chosen definition, with the mapped area and definition to come back to the Town Council for further discussion. Responding to Council, Mr. Early again detailed the discussions of the Steering Committee on the topic. The staff and consultant recommendation was consistent with the suggestion made by the Steering Committee. Lateral ridges, if prominent and visually dominant of the immediate landscape would be included. He noted there were a number of lateral ridges in the Town which did not dominate the immediate landscape. If connected to something over 800 feet, they would be eligible and reviewed to determine whether they dominated the immediate landscape.

Mr. Early explained that the definition suggested by the Steering Committee, while overly broad in some ways, had been limited to those ridgelines that formed the skyline, and where there could be an argument they did not have to necessarily be against the skyline. The alternative

definition did not require the ridgeline to be viewed against the skyline but dominate the landscape around it. He also explained that the proposed language could be more far reaching, but not necessarily more restrictive than the language in the Environmental Impact Reports (EIR) that had been prepared for the Palos Colorados and Rancho Laguna II projects, in that given current computer technology, an assessment of visibility could not be provided everywhere along the corridor. He described the first definition as very broad, which included all public streets, parks and trails designated for public access and use, and could include a Bay Area Rapid Transit (BART) station. Staff and the consultants had recommended the use of a slightly narrower definition, and would conduct an analysis of all the scenic corridors within the Town.

PUBLIC COMMENTS OPENED

Karen Chin, Moraga, expressed concern with the recommendation from the Steering Committee as overly broad and contrary to what the public had expressed during the Steering Committee meetings. The alternative definition included the language "a scenic corridor," although scenic corridors had not yet been defined, with concerns views would be from different perspectives throughout the Town. She found the proposed alternative definition to be overly narrow.

Mr. Early advised that a defined map of designated scenic corridors had been included in the staff report.

Dave Bruzzone, Moraga, reiterated his concern that the 800-foot elevation was an arbitrary number. He referenced the Bruzzone family Bollinger Valley property, which was dominated by Las Trampas Ridge, suggested that property had been targeted, and suggested the proposed action would be confiscatory in nature. While he agreed with the elimination of the language "from public viewpoints," he disagreed with the alternative definition's use of the statement "dominates the immediate landscape," and questioned the intent of that meaning. He noted the Bollinger Valley property was not visible to the vast majority of the community and would not create significant visual impairment if developed.

Suzanne Jones, representing Preserve Lamorinda Open Space (PLOS), expressed concern with the alternative definition and the use of the terms "highly visible" and "dominates the immediate landscape" since they included new and undefined concepts. She suggested the Steering Committee's recommended definition was more precise and easier to apply. She questioned whether the concern there would be too many ridgelines had been based on the maps that had been shown, since there were many ridgelines on the map which were protected and under conservation easements, some of which were located within MOSO. While there were a number of public places where ridgelines might be viewed, there were a finite number of ridges and once determined that a particular ridge was visible, formed the skyline, or was dominant from one public place, the process would be done with the ridgeline.

Malcom Sproul, Moraga, supported a general ridgeline definition that applied Town-wide with a map in the General Plan. He suggested the Steering Committee's definition came closest to what should occur; there was no magic to 800 feet with areas above and below that were equally important and had the same qualities depending from where they were viewed; and the Alternative Definition would be a giant step backwards leaving the Town with the same interpretation as it had for Rancho Laguna II, which was a mistake and would be contrary to the two-year Hillside Study process. He added that the scenic corridor definition in the General Plan had been oriented to the street and the street environment, and did not appear to be intended to focus on long-range views as the primary reason for being defined. He suggested the Town Council did not have the current background to suggest that scenic corridors were the only area to have the definition apply.

Gordon Nathan, Moraga, questioned the meaning of the term “significant” which carried a different meaning to each person. He wanted to see that term be better clarified during the process and its intent to the project identified.

Richard Immel, Moraga, commented that MOSO was a conceptual anchor to the hillside and ridgeline process. He provided the historical background of the MOSO Initiative as one of the principal sponsors; other initiatives that had been passed in other communities and under similar circumstances but which had been overturned by the courts; with the MOSO Initiative made as defensible as possible, which incorporated the General Plan, and which had been found legally defensible in court.

PUBLIC COMMENTS CLOSED

Mr. Early explained how the term “Significant Non-MOSO ridgeline” was being used as a new term of art, and would come into play as part of the other topics to be discussed, as the ridgelines outside of the MOSO area in terms of where houses could be sited near them, a term that existed today and was not an arbitrary term but a term of art. Once a map had been created of the ridgelines based on the guidance from the Town Council, the resulting map of the significant ridgelines that were not in MOSO areas would regulate in terms of where a home could be placed, a subject to be discussed later. He was confident the consultants could prepare the maps based on the definitions in the next round which could be discussed by the Town Council. In the end, he suggested there would not necessarily need to be a definition since there would be a map, and if the Town Council was comfortable using both definitions they could be mapped and then brought back for further discussion.

Mayor Metcalf commented that it would be helpful to see maps based on both definitions. He suggested the consultants move forward to create maps based on the two definitions.

Mr. Early cautioned that current computer technology was based on topography and not vegetation, and while PlaceWorks could map what was viewable from every public place, the map would map more ridgelines than may be actually visible in the field. Maps representing the two definitions would be brought back for review and discussion to the Steering Committee, Planning Commission, and Town Council, potentially also mapping the conservation easements.

Councilmember Wykle also supported the maps based on the two definitions, suggested it would not be too cumbersome given the limited ridgelines in the Town, and recognized the community wanted the hillsides and ridgelines to be protected.

Councilmember Arth also supported both maps as being very helpful.

Vice Mayor Trotter commented that he had followed the issue during his term on the Town Council and as a member of the Steering Committee, at which time he had helped to craft its recommendation, which he found to be fine as is although he recognized the concerns from the public that it could be less open to interpretation and more broadly protective. The workshops and focus groups had expressed a preference for the Steering Committee’s recommendation as opposed to the alternative. He was not opposed to the mapping, although he suggested it would be helpful to have a straw poll from the Council on which of the definitions the Council would like to see and conceptually prefer at this time.

Mayor Metcalf reiterated his preference to consider both definitions.

Mr. Early noted a straw poll vote on which of the two definitions was preferred might be premature absent the maps, but acknowledged the public support for the first definition.

Councilmember Arth did not support a straw poll vote on the two definitions at this time pending the preparation of the two maps.

Vice Mayor Trotter reiterated his recommendation that the Town Council identify its preferred definition.

Councilmember Wykle preferred the recommendation from the Steering Committee but also suggested maps based on both definitions would be useful given his inclination that both maps would be similar, and with that information the Town Council could dispel any arguments about the definitions.

Councilmember Onoda preferred the broader definition but would be open to seeing the maps.

Mr. Early stated that by consensus, the direction was to create both maps based on the two sets of criteria and bring them back to the Steering Committee, Planning Commission, and Town Council for consideration.

Ridgeline and Viewshed Protection

Mr. Early explained that “Protecting Ridgelines” and “Viewshed Protection” had originally been presented as two separate issues but would be presented as a single item due to their interrelated nature and the fact they had become linked through the process. He detailed the discussions by the Steering Committee and the Planning Commission on this topic, as outlined in the staff report

The Steering Committee recommended the following to address this issue:

- Revise Policy CD-1.5 to more precisely describe the Town’s policies relating to development on and near ridgelines.
- Review all General Plan policies, not only CD-1.5, and amend as needed to support the Town’s policies for ridgeline protection.
- Create standards to provide visual separation between the top of a structure and a Significant Non-MOSO ridgeline. Consider a vision plane standard, vertical separation standard, or combination of the two. Determine the specific numerical standard necessary to achieve desired results. Figure 5 and Figure 6 in the staff report offered two examples of visual separation standards for ridgelines.
- Consider including a visual separation standard for Minor MOSO Ridgelines in the MOSO Guidelines.
- Prohibit non-natural appearing landscaping from being silhouetted above a Significant Non-MOSO ridgeline.
- Consider ways to avoid applicants “gaming the system” in regards to minimum visual separation requirements (e.g., artificially lowering the elevation of a home by excavating a building pad into the hillside).
- Amend the Town’s Design Guidelines to include new standards that clarify requirements for all development in hillside and ridgeline areas. Adherence to standards would be mandatory but may allow for different methods to achieve the desired outcomes for aesthetics and preservation of views of ridgelines.

Mr. Early recommended the Town Council direct staff and consultants to address the Protecting Ridgeline issue by:

1. Proceeding with the Steering Committee's recommendation which would establish quantitative standards and qualitative guidelines for various types of ridgelines;
2. Providing preliminary input on the preferred method (vertical separation, vision plane, and/or horizontal buffer) to ensure visual separation between structures and adjacent ridgelines; and
3. Determining that with these methods applied, no additional measures are needed to address ridgeline and viewshed protection, also consistent with the Steering Committee's recommendation.

In addition to the quantitative regulations, a series of qualitative visual separation standards would be created, to be illustrated with pictures of the kinds of development desired in those areas.

Responding to Council, Mr. Early explained that there had been discussions at the Steering Committee level about views of the ridgelines above and between the homes and where each home would have to meet the requirements. Each home would be required to meet the test individually; the regulations would be written in such a way where the amount of differentiation would be maintained, for example, with homes stepping down. The necessary degree of separation between homes had neither been suggested by the consultants nor reviewed by the Steering Committee, but could be added.

Mr. Early clarified that the recommendations would involve site specific analyses, although they would not be able to analyze and map every possible development parcel from every possible viewpoint in the Town, but would offer a representative sample from several single locations. The regulation might end up being a recommendation to be both 200 feet and 10 degrees, and it might be possible to add in the regulations that the reviewing body looking at the projects review and evaluate whether the home meets the standards.

Discussing the homes in Moraga Country Club and Indian Ridge where the homes were much lower and where the hill below the ridge was visible above the homes, Mr. Early understood the gap was larger than what had been shown in his PowerPoint presentation depicting a home below a ridgeline. He understood there was a desire to see the hillside and the ridgeline, there was a concern that what had been presented to the Steering Committee and the Town Council as an example did not show enough degree of separation, but the intent of the graphic had been to illustrate a differentiation between the home and the ridgeline.

Councilmember Onoda expressed a desire to see not just a differentiation from the home to the ridgeline but of the hill and the ridgeline above the home, which would result in a greater separation than the one that had been shown as an example.

In response to the Vice Mayor, Mr. Early affirmed that this was a quantitative standard intended to protect the ridgeline and not the hill face. If the direction was to prepare a quantitative standard to protect the hill face, that would be a different exercise.

Vice Mayor Trotter stated there was a need to be careful, as part of this exercise to avoid losing some of the valued language in the Community Design Element of the General Plan, specifically the language contained in Policies CD1.3, CD1.4, and CD1.5, and something that

had not just the spirit but contained objective standards with more content and rigor applied to specific projects than had occurred in the past.

Councilmember Arth expressed concern for a possible taking, and recommended that the first recommendation not be pursued by itself but be pursued in combination with the third recommendation, as outlined by staff.

PUBLIC COMMENTS OPENED

Suzanne Jones, representing PLOS, believed that preventing structures from silhouetting against the sky above a ridgeline was important although the vertical separation distance or vision plane angle was needed and was a function of the distance between the observer and the structure, distance between the structure and the ridgeline, elevation of the observer, and elevation of the ridgeline and cross sectional shape of the ridgeline. No single quantitative standard would necessarily achieve the desired result.

Ms. Jones recommended a standard based on what the observer actually saw, and that the standard require that the structure not occupy more than a fixed fraction of the vertical field of view of the land mass as measured from the horizontal plane at the observer's feet to the top of the ridgeline where it would silhouette against the sky. PLOS fully supported a buffer in addition to whatever mechanism was decided to keep the height of rooftops at a level where the hills could be viewed and the ridgetop would remain visible.

Edy Schwartz, Moraga, spoke to the community concern with respect to tract housing on ridgelines, the potential for a taking, and the fact that the MOSO Initiative was not comprehensive, but the proposal represented a broader view than she had heard during the project meetings. While she commended the consultants' work and the meetings that had been held to date, she suggested the proposal didn't address the consequences of what was being considered. She described the General Plan as a great guide and suggested that document should be considered given that it addressed the community's general welfare, health, safety, and sustainability. Referring to the staff report, she questioned the use of the term "gaming the system" given that the directive for the project was to protect ridgelines and viewsheds. She sought a compromise between keeping Moraga ridgelines and viewsheds free from obstruction, and allowing property owners the ability to develop their land in a way that protected the visual impacts.

Gordon Nathan, Moraga, recommended a fourth standard. He agreed that the schematic presented to the Town Council was all perspective and appeared close to the top of the ridge. If there was more than one home, there would be impacts to the views of Indian Ridge which could prevent views of the ridgetop. In that case, the previous ridgeline definition discussion that included "public places" would come into play raising concerns where the "public place" would be designated. For the purpose of discussion, he recommended a fourth illustration to offer a different perspective of the same building using a different viewpoint angle.

Dave Bruzzone, Moraga, spoke to the exhibits that had been shown and asked what ridge it had represented, whether it was a realistic perspective or example, and whether it was a MOSO ridge. He understood the Painted Rock property was designated MOSO although the example was not representative of his property. He was informed by Mr. Early that the exhibit in question had shown Rheem Ridge from Rheem Boulevard.

Mr. Bruzzone commented that the top of a ridge was often the most stable from a geotechnical standpoint, and there would be issues when developing lower on the hillside but those issues

would be addressed in a project EIR. He explained that the visual impact was only one of many criteria to consider. He suggested that Rheem Ridge was the worst example to use and expressed the willingness to work with staff and the consultants on regulations that would allow major developments but without the major impacts that the exhibit had suggested.

Malcom Sproul, Moraga, noted the exhibit that had been shown did not include landscaping and the ridge would disappear in the example with typical landscaping and a home. He recommended a minimum 250-foot setback from the ridge, and if a greater setback was required, it should be based on criteria as to how to preserve the ridgeline and natural land forms.

Brenda Luster, Moraga, referenced regulations used by the City of Malibu, which were more restrictive; 300 feet horizontally, 100 feet vertically, and 18 feet in terms of height of a home as opposed to the 35-foot height allowed in Moraga. She suggested a more restrictive restriction on the setbacks from the ridgeline might allow a variance for a lower profile home height, which would require an HDP if a lower profile home was allowed and which would still allow the pristine beauty of the hillside to remain.

Tim Meltzer, Moraga, agreed with the members of the public on the issue of the protection of the ridgelines and the hillsides, and commented that expanding the views would be important. The exhibit provided showed little area between the top of the roof and the ridgeline, and if there were several homes the views of the ridgeline would be obscured. He read into the record a quote from the Mayor as to the importance of getting back to the spirit of MOSO, and added that policies in the General Plan also clearly covered many of those topics.

PUBLIC COMMENTS CLOSED

Mr. Early acknowledged the concerns related to whether they were working primarily to address the separation of the ridgeline, and whether there needed to be additional consideration to address separation with regard to views of the hill face. Part of the recommendation from the Steering Committee was to change both the language in the General Plan and the way the language was implemented to provide additional blending of development with the hillside through vegetation and landscaping to ensure quality development, and that the visual amenity was as high as possible, which was not the same as saying there shall be no development. He suggested that adding preservation of the hill face would be a departure from the scope and would result in a larger area of non-development around the ridgelines. The regulations were being developed for the Non-MOSO areas, and if it included protection of the hill faces along the Non-MOSO ridgelines, that would be a greater restriction than the restrictions on the MOSO ridgelines of 500 feet. He sought input from the Town Council on that issue. Based on the comments thus far, he found that the Town Council was comfortable with the proposal in some combination of the three recommendations.

Mayor Metcalf spoke to the intent of the originators behind the MOSO Initiative which had been adopted by the voters, concerns with respect to takings, and potentially more restrictive regulations, and questioned at what point that would become abusive to property owner rights. While he understood Councilmember Onoda's recommendation, he questioned how it would be implemented since a point could be reached where nothing would be allowed on the face of a hill, which could be indefensible in the courts.

Ms. Murphy affirmed that such concern would continue to be reviewed throughout the process, which had been alluded to in the staff report, to ensure the regulations did not go too far and open the Town up to the risk for a taking challenge.

Mayor Metcalf commented that every hill face in the Town could be involved where potentially no development would be allowed in a town full of hills. He recognized many who had submitted written comments did not want more development in the Town, although he emphasized that could be problematic for the Town.

Mr. Early recommended that issue be left to staff and the Town Attorney to continue to work on the options. If the Town Council wanted to define a goal to minimize invasion of the hill faces and hillsides, staff and the consultants could come back and provide information on the most that could be done, and address concerns with respect to takings. He understood the goal was to protect the ridgeline viewsheds, and not the hill faces. He too was concerned with a more restrictive set of rules in terms of the land that could be developed. He added that a hillside or a hill face had not been defined, the hillsides would have to be mapped, and it would then have to be determined how to regulate them. He sought direction from the Town Council.

Councilmember Wykle commented that he was not satisfied with the three recommended options. It was important to see where the viewer was located, have views of the ridgeline, and then have a discussion of how much of the ridgeline was visible above the structure. He sought a hard buffer, suggested 200 feet would be reasonable, and stated it would be important to better define and provide a better objective definition for the horizontal separation. He cited the City Ventures project and the concerns with the views between the homes. He wanted to protect the ridgelines and some of the hillside views.

Mr. Early affirmed with Councilmember Wykle that his concern related to the hill face, although the amount of hill face was still a function of how much was being seen relative to the development amount below, and that enough be seen to allow views of the hills and ridgeline but not the whole hill face.

Vice Mayor Trotter agreed that a 200-foot hard buffer was reasonable, and urged Legal Counsel to consider language with a possible escape clause to protect the Town. He commented that when the protection of hillsides and ridgelines had been discussed, it had included the viewsheds, which included hillsides, with language in the current General Plan which spoke to the existing viewsheds and hillsides. Councilmember Onoda's recommendation to protect the hill face and have views of the actual hill was a concept that had not been quantified, although the question was whether there was a quantifiable standard such as the structure was not to obscure more than a set percentage of the total hillside plane, a fourth standard, offering another way to look at this topic in addition to the three recommendations and put into quantifiable terms what Councilmember Onoda had suggested.

Councilmember Arth suggested if there was a change in the recommendation from 25 feet to 40 feet would allow more views of the hill face, although whether that would result in a taking would have to be addressed by Legal Counsel. While he would like to see some hill face, he did not need to see all of it. He suggested there had to be something for the owners of the property, and if the ridgelines were protected with some hill face that would be acceptable.

Councilmember Onoda referenced the Via Moraga 17 home development where, because of the setback, the homes would be close to the street along Moraga Road obscuring views of the hillsides. Had the homes been pushed back, the hillside would have been more visible. She found that the Town's Design Guidelines had no power, and suggested now was the time to consider mandatory standards as opposed to guidelines.

Mr. Early reiterated that the Steering Committee's recommendations included amendments to the Town's Design Guidelines. He understood that Councilmember Onoda was recommending

amendments to the Town's Design Guidelines, to include additional standards to clarify the requirements for all development in the hillside and ridgeline areas, with the consultants to work on those amendments. He also understood the concern for standards, not guidelines, and noted that the Steering Committee had agreed.

Mr. Early restated the Vice Mayor's recommendation for a fourth standard to address from the viewer's perspective how much of the ridgeline would be seen above the development, which could be expressed as a percent of the hill face being obscured, a percentage of the height of the building itself, or the highest building, which he found to be a middle ground; not trying to deal with the hill face at all versus protection of the whole hill face and somewhere in between ensure there was enough of the hill face below the ridgeline and above the house where there were still some views of the hill.

Councilmember Onoda agreed with the Vice Mayor's recommendation.

Mayor Metcalf recommended that the consultants work on that recommendation and bring it back to the Steering Committee level with information as to how it would be implemented.

Mr. Early summarized the Town Council's discussion on the topic of Ridgeline and Viewshed Protection with the Town Council, again cited the recommendations from the Steering Committee, and noted that the consultants had been directed to also review the three recommendations, with a fourth recommendation that would somehow be a function of what the viewer would see in regard to the percentage of development versus the percentage of hill face and ridgeline above. He also acknowledged that most Councilmembers were of the opinion that the horizontal standard was also important to retain. He understood that the consultants were not being asked to create a full design regulatory ordinance that would be adopted by the Town Council, or the voters, but that there be some interpretation during the individual project review. The guidelines would include fewer advisory guidelines and more specific standards to ensure that review but would continue to be more objective than what currently occurred.

Mr. Early clarified the Town Council had also discussed that with increased regulations, perhaps through the amount of hillside visible between the home and the ridgeline, an escape clause should also be included to avoid potential takings issues.

Vice Mayor Trotter recommended the second bullet point of the Steering Committee's recommendation be revised to read:

- *Review all General Plan policies, not only CD-1.5, and amend as needed to support Town's policies for ridgeline and hillside protection.*

Steep Slope Limitations in MOSO Open Space

Mr. Early detailed the discussion of the Steering Committee and the Planning Commission on the topic of Steep Slope Limitations in MOSO Open Space, as outlined in the staff report. He recommended that the Town Council direct staff and consultants to address the Steep Slope Limitations in MOSO Open Space by proceeding with the Steering Committee's recommendation, outlined below, in a manner consistent with the MOSO Initiative.

In MOSO Open Space, the MOSO Guidelines prohibit development in areas with an average existing slope of 20 percent or more. MOSO regulations require that slope be calculated for a "cell," but the size and shape of a cell is not regulated, and there

is concern that some applicants circumvent the intent of the slope development limitation by calculating average slope for very large or irregularly shaped cells. The Town also needs to clarify if development is allowed in particularly high-slope areas within a cell if the average slope of the cell as a whole is less than 20 percent. This latter approach would be more consistent with the letter of the MOSO Initiative, which does not speak to "average" grade.

PUBLIC COMMENTS OPENED

Gordon Nathan, Moraga, spoke to adding the driveway to the development envelope, noting that the Moraga-Orinda Fire District (MOFD) was involved in the overall plan review but suggested that the consultants work with the MOFD to determine whether 20 feet in width was an acceptable standard. He opposed the use of the term "conflict" as part of what he described as lively discussions of what the community needed and wanted, and the perceptions of what the Town Council needed and wanted. He believed the Town Council had already adopted an ordinance that involved the taking of property rights, although that ordinance had yet to be tested.

Suzanne Jones, PLOS, commented that the discussion now related to MOSO lands that were subject to the terms of the MOSO Initiative, with the overarching goal to implement the MOSO Initiative as adopted by the voters, which clearly prohibited development on slopes with grades of 20 percent or greater. She noted, however, that in practice that rule had not been followed because the slope averages had been taken over wide areas and significant slopes in excess of 20 percent had been developed. PLOS fully supported the building envelope approach to address the problem provided it included a reasonable upper limit on the area over which the slope could be averaged. PLOS had recommended an area not-to-exceed 10,000 square feet, a quarter of an acre, which would accommodate a building envelope that was typical for new residences in Moraga. In addition, a proposed building envelope that was greater than 10,000 square feet could still be accommodated by the concept by breaking up the building envelope into two or more smaller subareas for the purpose of averaging slopes, and those two could be developed provided that both areas visually complied with the 20 percent standard.

Ms. Jones suggested that concept could work for the road issue, and a developer could have whatever shape of development envelope desired for the intermediate areas of common spaces, utilities, and the like, but still needed to maintain the upper limit on the total cell area to avoid the types of abuses that had occurred in the past. She had no concerns with contorted cells with MOSO prohibiting development on slopes greater than 20 percent. She read into the record a statement on Page 28 of the staff report in relation to improvements located outside of the development envelope of each home, such as streets and utilities to serve the subdivision, where it might be necessary to allow development on slopes of 20 percent or greater, but emphasized that would not be allowed under the MOSO Initiative.

Dave Bruzzone, Moraga, expressed concern that a property owner would not be able to install a road to reach their property because of the new proposed definition of development. He emphasized that development under MOSO was houses, not roads. The original intent of the MOSO Initiative was to prohibit development of houses on the ridgelines. He expressed concern that there was a perception in the community that if the rules were not modified and made more restrictive, the ridgelines would be full of houses, which was not the case.

Tim Meltzer, Moraga, cited recent letters submitted to the Town Council, and commented that the perception they were all supportive of no development was not accurate, although residents were supportive of the protection of the Town's assets and treasures which had attracted many to move to Moraga.

Richard Immel, Moraga, again cited the history of the MOSO Initiative and commented that ridgeline development had triggered the initiative.

PUBLIC COMMENTS CLOSED

In response to Councilmember Wykle, **Vice Mayor Trotter** spoke to the background of the Steering Committee's recommendations and discussions of the maximum size for the building envelope, where the building envelope should not exceed 10,000 square feet, and where the cells could be strung together to allow development of a larger estate home. He recommended a cap on the building envelope for the purpose of analyzing slope in MOSO lands, and stated that 10,000 square feet was workable, for a typical home, and for an estate home some aggregation of those areas would be required. A developer would not have to go to the next 10,000-square foot area, as an example, if an area could be found that was less than that and met the not-steeper-than-20-percent-average-slope requirement. He suggested the recommendation and work by the Steering Committee was solid, the Town Council should proceed, but suggested more work should be done on the development envelope. He agreed with Ms. Jones that building roads was within the definition of development and the question was how, and whether it could work on a site-specific basis.

Councilmember Onoda supported the Vice Mayor's recommendation, as described.

Mr. Early summarized the comments from the Town Council to proceed with the Steering Committee's recommendation and add to it the 10,000-square foot limitation, with the understanding that if a single development envelope legitimately needed to be more than 10,000 square feet, it should be essentially divided into two parts, each of which were under 10,000 square feet and each of those two parts must have a slope under 20 percent.

Mayor Metcalf declared a recess at 8:35 P.M. The Special Town Council meeting reconvened at 8:41 P.M. with all Councilmembers present.

Remediation of High Risk Areas

Mr. Early detailed the discussion and recommended options offered by the Steering Committee, noting in the case of the Planning Commission that no consensus had been reached. The discussions had been outlined in the staff report. He advised that staff did not have a specific recommendation on this issue. Instead, he suggested that the Town Council direct staff and consultants to address the Remediation of High Risk Areas based on the results of a discussion of the High Risk Remediation and Increased Density Options Table, as shown on Page 31 of the staff report, and related questions, in a manner consistent with the MOSO Initiative.

In order to provide clarity on the discussion, two types of grading for remediation were identified including:

"Extensive" grading, *"The movement or redistribution of large quantities of earth over large areas that results in the disruption of the majority of the on-site surface terrain, modifies, or eliminates major and minor natural landforms, significantly disrupts the natural character of the site"* and

"Non-Extensive" *"Relatively non-invasive subsurface engineering solutions for landslide repair that preserves natural landforms and existing hillside and slope contours."*

For each type of grading in the high risk areas, The Town Council should consider four options:

Option A: Never allow repair or remediation in high risk areas, hence also prohibiting increases in density in these areas.

Option B: Allow repair and remediation in high risk areas under specific circumstances but do not allow increases in density as a result of this remediation.

Option C: Allow repair and remediation in high risk areas under specific circumstances and allow increases in density as a result of this remediation.

Option D: Allow repair and remediation in high risk areas under all circumstances and allow increases in density as a result of this remediation.

Mr. Early detailed tables he had prepared that he asked the Town Council to complete based on the above information.

Councilmember Wykle read into the record the requirements of the MOSO Initiative related to High Risk areas, to be limited to a maximum density of one-dwelling unit per 20 acres. Based on that requirement, his position was if it was identified in MOSO as High Risk, subject to the stated requirement, it could not be changed without going back to the voters.

Councilmember Onoda agreed.

Councilmember Arth also agreed with Councilmembers Onoda and Wykle, but suggested the land could be remediated but not add to the density.

Vice Mayor Trotter understood with respect to the MOSO Guidelines that a concept had crept in that remediation of High Risk areas could be pursued, and although not in the MOSO Initiative, there was some legal strength to the positions set forth by other Councilmembers that it would not be allowed to be a basis for increasing density, which he supported. He sought input from the public where remedial grading should be allowed and if so doing there would be a less steep slope area, which would be within MOSO and be developable, although development would not be allowed if there was to be a public health, safety, and welfare issue. He understood based on Councilmember Wykle's comments, that remediation could not be used to increase density although he was not hearing Councilmember Wykle suggest one could never grade in High Risk areas if so doing that would make other non-High Risk areas safe. He sought input from the Council and the public on that issue.

Mayor Metcalf noted that if there was a piece of property at 20 acres and it had real problems with slides, which was likely in Moraga, those slides could come down onto public roads, as an example, and cause problems for the Town and become a nuisance. If there was an interest in correcting that situation, someone other than the Town would have to pay for it. He cited Bollinger Canyon Road which had a steep escarpment, with rocks and a tree falling down, and which had been built by the County long ago, and stated that some developer would have to be approached to pay for it. In the case of Rheem Boulevard, the developer for Rancho Laguna II had proposed a project where the Town and the developer would share the costs equally. He emphasized that if the Town wanted to get something done, someone other than the Town would have to do it, and one way to pay for it would be to allow a density bonus, which was the reason why the 1 to 5 or 1 to 10 density, depending on the type of remediation, had come into play.

Vice Mayor Trotter stated that the density bonus concept had been brought into the guidelines immediately after MOSO had been adopted, later amended, and maintained after work on the

cell concept and the guidelines in 1991/1992, at which time he had been a member of the Planning Commission. He commented the notion that was being done for a quid pro quo had never come up during those discussions.

Mayor Metcalf understood the only reason for allowing a developer a density bonus was if the developer was doing something to benefit the Town.

Vice Mayor Trotter, referring to the bluffs over Bollinger Canyon Road, commented it made no sense to have a density bonus in the context of the discussion since the Town owned the bluff, it was public property, and the Town had to deal with it.

Councilmember Wykle stated that to do something outside of what had been specifically described in the MOSO Initiative would be in violation of a voter approved ordinance and the Town would not be able to increase the density without going back to the voters.

As to how the density bonus issue had come up and in response to the Mayor, Mr. Early understood that others had read the language in the MOSO Initiative in a different way. Some were of the opinion if the land had the characteristics to be categorized as High Risk, its density shall be no more than "x," but once those characteristics were changed, that land was no longer in the High Risk category and its density would change. He reiterated the reason the matter had come up was that the language had been interpreted in different ways, although he recognized that four of the five Councilmembers were reading the language that if the property was designated High Risk it was that way forever, even if remedial grading occurred.

Councilmember Arth recalled that Mr. Immel, as one of the MOSO Initiative sponsors, had stated at a prior meeting that MOSO required taking the land as is, and if the land started out as High Risk, it would remain High Risk.

PUBLIC COMMENTS OPENED

Suzanne Jones, PLOS, explained that she had reviewed the first set of MOSO Guidelines which had been adopted after the passage of MOSO, which did not contain a provision for reclassification via remediation, although that policy had been added to the MOSO Guidelines as part of a first revision in the 1980s. PLOS agreed that MOSO should be followed as written; there should be no reclassification for a density bonus; she supported Option B, as shown in the staff report, but noted that Option B still allowed for necessary remediation to occur to the extent necessary for development at a maximum density of one unit for every 20 acres of High Risk land. She believed that neither remedial grading to repair a landslide on slopes steeper than 20 percent, nor remedial grading within the 500-foot setback from the ridgeline was allowed given that once the maximum number of homes allowed under the High Risk classification had been set, the next step would be to site those homes to comply with all of MOSO's remaining requirements.

Ms. Jones noted that all of the development associated with those homes, grading, and the like would be required to comply with the MOSO Guidelines related to slope and ridgeline restrictions, and if there were not enough building sites that conformed to all of the MOSO slope and ridgeline requirements to accommodate that full number of houses that were allowed under the High Risk classification, only those houses that followed all of the MOSO remaining requirements could be approved. The only reasonable exception by which a home could be approved on slopes steeper than 20 percent or within a protected ridgeline buffer, would be if to do otherwise would deprive the landowner of all economic use of the property. While the density bonus idea might have merit, density increases in exchange for such benefits had not

been contemplated in MOSO or in the MOSO Initiative itself, and had no place in the implementation of the MOSO Initiative that was currently in effect.

Edy Schwartz, Moraga, suggested the health, safety, welfare, and sustainability was also in MOSO and should be taken into account. She supported Option C, as written, which would allow repair and remediation in High Risk areas under specific circumstances and allow increases in density as a result of this remediation. She also supported the ability to choose mass grading when it was determined that a hillside would benefit from that type of procedure. She referenced a landslide that had occurred in her neighborhood and which had taken months to remediate through mass grading, with extensive movement of land, and with the visual impacts the same as before the hillside had been repaired. She expressed her hope that any example of mass or extensive grading would be modified to show what would happen when complete given that there could be extenuating circumstances why the repair was needed and it could have visual impacts.

Richard Immel, Moraga, recalled the same group which had been active in the MOSO Initiative had worked with the Town to review the drafts. He recalled that when mitigation had come up, it had been stricken since it was neither part of nor contemplated in MOSO but had eventually been brought in. He explained that one of the reasons the land had been classified as MOSO and Study by the Town was that it was poor quality land, as borne out by geotechnical studies that had been prepared after the MOSO Initiative had been passed. He commented that some of the projects in progress leading to the MOSO Initiative had involved massive or extensive grading of lands in poor condition, which was what the community did not want to see happen again.

Dave Bruzzone, Moraga, questioned the discussion of a density bonus and quoted from MOSO that "... private open space shall be limited to a maximum density of one DUA per 20 acres, 10 acres or 5 acres but at no point should exceed one DUA per 5 acres." He questioned whether it would be good policy to prohibit or prevent people from being able to improve their property whether MOSO lands or any other property; questioned if the land was designated High Risk there could not be a density greater than that in MOSO; spoke to the expense of grading and the possibility of preventing a property owner from improving their property; and spoke to the inaccuracy of the development capability maps where some of the areas designated as High Risk were incorrect. He suggested that MOSO did not state that the High Risk could not be remediated and could not be improved to a lesser state. If the Town was to prohibit someone from making their property more stable, the Town could be creating a safety issue for the rest of the community. He expressed concern how the subject had grown into what were already large restrictions on MOSO lands making it more difficult for someone to improve the community and contrary to what was needed in the community.

Malcom Sproul, Moraga, found that the existing MOSO Guidelines conflicted with the language in MOSO and needed to be eliminated since it allowed development on MOSO lands in which the MOSO Initiative intended to protect. He suggested that remediation should never be allowed for the reclassification of High Risk areas or as a tool to increase site density. The identification of High Risk areas had been intended to determine avoidance areas and create a mechanism to steer development away from unsuitable areas and to prevent the extensive grading needed to make them safe from development, and that concept had been reflected by the low density established in MOSO, one DUA per 20 acres, with the notion that a building site would be able to be found in that area without having to completely eliminate the land. He suggested that remediation should only be allowed to protect existing structures and public facilities, such as roads, with no intended increase in density.

Tim Meltzer, Moraga, suggested that the density bonus concept had resulted from those who had been deciding the issue at the time, which was the fatal defect in the concept. He agreed with those Councilmembers who suggested that remediation would not alter the original classification, and argued that Option B made the most sense.

PUBLIC COMMENTS CLOSED

Mr. Early again commented that four of the five Councilmembers were of the opinion that whether remediation was extensive or non-extensive it was in the category of Option B; and that likely those Councilmembers would check the second boxes of the table he had prepared for both extensive and non-extensive.

Mayor Metcalf questioned the real impacts in preventing the increase in density on High Risk areas of MOSO lands, and suspected the real impacts would be small, to which Mr. Early affirmed was likely correct.

Mr. Early added that one of the tasks that had been created through the Consent Items approved by the Town Council to move forward was the creation of a map of High Risk areas, which would be brought back to the Steering Committee, and which would include identification of the percentage of the High Risk areas in MOSO and the percentage of the High Risk areas in the Town of Moraga. Referring to the table he had prepared, he suggested the consensus was to only remediate and not add density for both extensive and non-extensive grading, and suggested the consensus was not to allow remediation in areas where slopes were currently over 20 percent or otherwise undevelopable because grading was development, and if over 20 percent development would not be allowed. He also suspected the Town Council would allow grading in areas under 20 percent as long as it was consistent with the lower density of MOSO, and allow it to protect existing roads, homes, and other existing development.

Building Size on Large Lots

Mr. Early detailed the discussions and recommended options offered by the Steering Committee and the Planning Commission and explained that neither had reached a consensus on this topic. He recommended the Town Council consider the following:

Specify a maximum floor area for lots greater than 20,000 square feet using a Floor Area Ratio (FAR) formula similar to that currently used for lots 20,000 square feet or less, but apply the limit only to homes in a hillside area visible from a public place, without any cap on home size on lots of one acre or more. The exact details of the new size limitations for lots between 20,000 square feet and one acre would be developed in the next phase of the project.

Responding to Council, Mr. Early explained he was recommending no cap on the home size on lots of one acre or more. Given the way the lines could be drawn, the policy would be even with the cap at one acre and a home size in the 7,000 square foot range. He added that most homes in Moraga were not that large.

Ms. Clark clarified, when asked, that a large home located on the west side of Rheem Boulevard was approximately 6,000 square feet in size.

Councilmember Wykle referenced General Plan Policy CD 4.3 regarding infill development in existing neighborhoods and noted that the Town had struggled with that policy in the past.

Mr. Early identified four large homes that had been built in the Town which were all under 8,000 square feet in size. He clarified that the limitation following any formula would get above the

sizes of any of those homes, and acknowledged there had been suggestions for a cap in the public discussions. He added the regulations would be considered Town-wide.

Ms. Clark also affirmed that the home examples shown were based on assessor information and did not include the square footage of the garages.

PUBLIC COMMENTS OPENED

Suzanne Jones, PLOS, appreciated the Town's consideration of the issue and the need for Floor Area Ratios (FARs) for visually prominent lots over 20,000 square feet. She pointed out when the story poles for the Rancho Laguna II development had been installed, they had generated quite a bit of shock in the community and amongst some of the Town Council, with large homes in the heart of open space and within the scenic corridor. The table of the proposed FARs contained in the staff report would allow up to a 7,000-square foot home on a one-acre lot, with no limit on the size of homes for lots over an acre. Such a proposal would do nothing to prevent the current situation with the Rancho Laguna II homes or prevent the large home that had been built on Rheem Boulevard from being approved. Not suggesting a limit on home sizes that were not visible and not in prominent areas, she stated if the homes were visible from scenic corridors, a more reasonable cap for the one acre, at possibly 5,000 square feet, and specific to high visibility locations should be considered.

Dave Bruzzone, Moraga, described the topic as legislative creep given that the project had started with a discussion on ridgelines and hillsides, now considering a Town-wide restriction on FAR. He suggested the Town had more than enough regulations and controls in design review to limit the impacts of homes. He expressed concern with the unintended consequences of extending above the existing FAR, which were now guidelines. The Planning Commission had discussed the fact that in terms of the FAR, more often than not numbers came in that were higher than the allowed FAR or approaching that range. The Commission had recognized it was clear that people should build an appropriately sized home. He suggested that would not take away from the privacy of adjacent neighbors, or be completely out of scale with a neighborhood, but he wanted to see people allowed to improve their neighborhoods, lots, and not have to have an artificial barrier to development. He questioned adding the issue of FARs to the hillside and ridgeline discussion which he found to be inappropriate, and out of the scope of the direction of the Hillside and Ridgeline project. He urged no changes or enhancements to the FARs at this time.

PUBLIC COMMENTS CLOSED

Mayor Metcalf commented that when he had learned of the subject he had questioned what business the Steering Committee had limiting house sizes, noting the only connection between house size and the hillsides was how much of the mass of the home impacted the viewshed of the hills. He referenced property located outside the city limits of the City of Lafayette, in an unincorporated area of Contra Costa County, which was unattractive, visible, and four stories in height. In that case, the home was located on a prominent hillside and a regulation on building size on large lots would make sense. The only connection he could see of the house size was how much of the structure obscured the hillside. He suggested the issue was being addressed in terms of what was allowed on the hillside in terms of obstruction of views making him of the opinion the topic was less relevant.

Mayor Metcalf acknowledged that the large home depicted in the PowerPoint presentation located on Rheem Boulevard and in MOSO lands, should never have been allowed as it was out of scale with the neighboring buildings. He explained that the Town already had regulations in place and building out of scale with the neighborhood was not permitted, which was the

reason the Town had worked to get the scale right with the City Ventures development. He could not see a justification for the proposed policy.

Councilmember Onoda agreed that the Rheem Boulevard property should not have been allowed to be built. She supported restrictions that homes on one-acre lots could be no larger than 5,500 square feet as opposed to a 7,000-square foot maximum. She cited another residence on Merrill Circle, which was in character with the homes in that neighborhood, and the property was not located in the scenic corridor. More than guidelines, she wanted to see numbers that could be measured and suggested the current numbers were too large.

Mr. Early understood that Councilmember Onoda was recommending additional regulations along scenic corridors, and regulations from the current 4,600-square foot home at a 20,000-square foot lot, to 5,500 square feet at one acre that would be set as a cap.

Councilmember Onoda sought to strengthen the guidelines to mandatory standards for design review where homes would have to be built consistent with the neighborhood. She noted that a proposed new residence had recently been appealed to the Planning Commission since the design guidelines had not been enforced, which had occurred previously with some applications.

Mr. Early understood that the numbers would remain as they were outside of scenic corridors, although the Design Guidelines would be strengthened regarding compatibility with the adjacent homes.

Councilmember Onoda supported a maximum home size of 5,500 square feet in the scenic corridors, to then be scaled down based on lot size.

Councilmember Arth supported no limitation on the size of one acre lots anywhere as long as the structure was consistent with the homes in the neighborhood. He saw no reason to treat scenic corridors any differently from any other non-scenic corridor area of the Town if the home was compatible with the neighborhood. He also saw no reason to place an artificial hard number of maximum square footage on properties one acre and above. While he would support a tightening of the Design Guidelines, he would not make any changes in the numbers in any part of the Town for 20,000 square feet or above.

Vice Mayor Trotter suggested there was precedence on capping the square footage of homes. He cited the 123-home Palos Colorados project, which had set a cap of 5,500-square foot maximum size for the homes, which would not take any property rights, and which would provide some visual enhancement and regulation of homes along the scenic corridor and along Moraga Road. He could support a 5,500-square foot maximum along the scenic corridors, and was ambivalent as to whether that should be required Town-wide.

Mayor Metcalf questioned the connection between the issue of house size and the issue of ridgelines and hillsides.

Mr. Early understood that there was a 3-2 Town Council majority support for a cap with the reasons expressed by those Councilmembers in support. He clarified with Councilmember Wykle he would be comfortable with a 5,500-square foot cap, and asked that the majority of the Council for consensus as to whether the cap should be 5,500 square feet Town-wide or only in the scenic corridor.

Vice Mayor Trotter suggested scenic corridor was shorthand for *visually prominent*.

On the discussion, Mr. Early reiterated the recommendation to:

Specify a maximum floor area for lots greater than 20,000 square feet using a Floor Area Ratio (FAR) formula similar to that currently used for lots 20,000 square feet or less, but apply the limit only to homes in a hillside area visible from a public place, and without any cap on home size on lots of one acre or more. The exact details of the new size limitations for lots between 20,000 square feet and one acre would be developed in the next phase of the project.

Mr. Early commented that PlaceWorks could continue to review the issue and attempt to determine the number of lots that were not visible from a public place. He clarified the discussion was that the Town Council essentially supported the staff recommendation with the addition of a cap at 5,500 square feet, and create a shallow curve that would get from 4,600 square feet at 20,000 square feet up to 5,500 square feet at one acre, and otherwise follow the staff recommendation.

Mr. Early thanked the Town Council for the input and discussion.

B. Consider Hillside and Ridgeline Steering Committee

1. Consider Resolution __-2016 Amending the Hillside and Ridgeline Steering Committee Charter to Extend the Term of the Committee; and
2. Consider Resolution __-2016 Amending the Hillside and Ridgeline Steering Committee Charter to Extend the Term of the Committee and Modify the Composition of the Committee

Ms. Clark presented the staff report and asked the Town Council to consider the alternatives outlined in the staff report and provide direction regarding the composition of the Steering Committee. Regardless of the decision on the composition of the Committee, she also recommended the Town Council adopt a resolution amending the Charter to extend the sunset date of the Steering Committee.

PUBLIC COMMENTS OPENED

Tim Meltzer, Moraga, suggested that continuity, expertise, experience, and knowledge for the process and effort should be maintained. He supported Option 3, making no change to the composition of the Hillside and Ridgeline Steering Committee, except if currently serving members wished to step down from their appointment, in which case staff would seek new appointments from each Board and Commission as needed.

Rob Lucacher, Moraga, also spoke to the importance of continuity during the process, with his participation in the process having been based on that continuity. He would like to finish what he had started and saw no reason to make any changes to the Steering Committee. He expressed concern with the potential for increased costs and a less effective work product if changes were made mid-stream, and reiterated his willingness to continue to serve on the Steering Committee.

Christine Kuckuk, a member of the Planning Commission, stated the Hillside and Ridgeline Steering Committee was the only Committee that did not have an active Planning Commissioner represented. She supported at least one currently active Planning Commissioner on the Steering Committee, recognized the benefits of continuity, and saw no reason to remove any member of the Steering Committee who was currently serving and who would like to continue to serve.

John Glover, a current member of the Hillside and Ridgeline Steering Committee, questioned expanding the Committee to ten members. He too recognized the importance of continuity, and while his term on the Design Review Board (DRB) had expired, he was willing to continue to serve on the Steering Committee.

PUBLIC COMMENTS CLOSED

Councilmember Onoda suggested that ten members was an unwieldy number. She found that the Steering Committee was a well-balanced group, and adding more people on the Committee at this point would not serve the process well. She opposed the addition of another member to the Steering Committee and supported the retention of the current members.

Councilmember Arth also supported the retention of the Steering Committee as it was but sought input from the Council representatives on the Committee.

Vice Mayor Trotter concurred with the comments, recognized that the other members of the Steering Committee were non-active members of their respective Boards and Commissions, but individuals who had been appointed at the time they were serving on the Town Boards and Commissions who had done a very good job representing the broader community. He too saw no reason to replace or augment them, particularly for those members who would like to continue to serve. He explained that all of the issues would go to the Planning Commission which would continue to have input in the process. He saw no reason to change the Charter.

Mayor Metcalf explained that he had no issue with the existing members of the Steering Committee other than his issue with the representation from the Planning Commission which would be responsible for carrying out the Town's regulations. In his opinion, active members of the Planning Commission should be involved in formulating the regulations. He believed it could improve the process given there had been some problems achieving a quorum during Steering Committee meetings. He suggested that augmentation of the Steering Committee was not a bad thing, and agreed the Steering Committee should be kept small with representation from active members of the Planning Commission who would be responsible for carrying out the Town's regulations.

Councilmember Wykle agreed that the currently serving Steering Committee members should remain on the Steering Committee. He recognized that continuity was important although he also understood the concerns of the Mayor, and suggested possibly one more Planning Commissioner could be added to the group, which would still keep the group small while allowing an active member of the Planning Commission to participate.

By consensus, the Town Council supported one additional active Planning Commissioner to the Steering Committee.

Ms. Clark also affirmed that Stacia Levenfeld, a non-active member of the Planning Commission, would like to continue serving on the Steering Committee. She noted that the current Steering Committee Charter stated that each Board or Commission shall appoint its own representative.

Ms. Murphy affirmed the Steering Committee Charter could be modified to allow the Town Council to override the Board or Commission selection of a member and after that modification was approved a future appointment could be agendaized, or the Charter could be left as is allowing the Board or Commission to make a selection.

Vice Mayor Trotter offered to override the Board or Commission selection given concerns with slowing down the process where new members of the Steering Committee might have to revisit

issues that had already been covered, and the possibility of having to start from scratch. He emphasized the three-year process and explained that the Town Council's goal was to complete the process in 2016. He added that there was language in the staff report that the Steering Committee sunset in March 2017; however he would like to see the Committee sunset in 2016 to ensure completion of the project in 2016.

Vice Mayor Trotter recommended that the Steering Committee Charter be modified to expand the Charter to November 30, 2016. If it must be extended again, that could be considered at a later date. Also, he questioned whether the choice of the Planning Commission should be representative should be left to the Planning Commission or to the Town Council.

Ms. Clark advised that the Planning Commission had discussed the matter and Planning Commissioners Kuckuk and Woehleke had expressed an interest in serving on the Steering Committee.

Ms. Murphy clarified the appointment from the Planning Commission had not been agendized, and if it was the desire of the Council to make an appointment from the Planning Commission it would have to come back to a future Town Council meeting.

Mayor Metcalf stated while he would have preferred two active Planning Commissioners on the Steering Committee, he suggested either Commissioner interested in serving on the Steering Committee would do the job well, and suggested the Planning Commission should make the selection as to who should serve.

Councilmembers Arth and Wykle agreed that the Planning Commission should make the selection of which active member should serve on the Steering Committee.

Ms. Murphy and Ms. Clark offered the following modifications to Attachment A, Resolution 23-2016, Amending the Hillside and Ridgeline Steering Committee Charter to Extend the Sunset Date of the Committee:

- Revise the Number of Members: to read: Up to Seven (7)
- Revise Composition to read:

Two (2) members of the Moraga Town Council

One (1) current member and up to (2) former members of the Moraga Planning Commission

One (1) member of the Design Review Board;

One (1) member of the Park and Recreation Commission; and

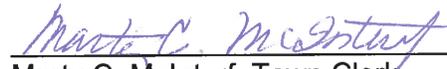
- Revise the Term of the Committee: To sunset on December 1, 2016 subject to extension by the Town Council.

ACTION: It was M/S (Trotter/Onoda) to adopt Resolution 23-2016 Amending the Hillside and Ridgeline Steering Committee Charter to Extend the Sunset Date of the Committee to December 1, 2016; and to Modify the Composition of the Steering Committee with the revisions put forward by the Assistant Town Attorney and the Planning Director, as indicated. Vote: 5-0.

5. ADJOURNMENT

ACTION: It was M/S (Wykle/Trotter) to adjourn the meeting at 10:14 P.M. Vote: 5-0.

Respectfully submitted by:



Marty C. McInturf, Town Clerk

Approved by the Town Council:



Michael Metcalf, Mayor