DRAFT AMENDMENTS TO TOWN OF MORAGA HILLSIDE AND RIDGELINE REGULATIONS

SEPTEMBER, 2016

1. PROPOSED AMENDMENTS TO TOWN OF MORAGA GENERAL PLAN

2. PROPOSED AMENDMENTS TO MORAGA MUNICIPAL CODE

3. PROPOSED AMENDMENTS TO GUIDELINES FOR INTERPRETING AND IMPLEMENTING THE MORAGA OPEN SPACE INITIATIVE (MOSO GUIDELINES);

4. PROPOSED AMENDMENTS TO TOWN OF MORAGA DESIGN GUIDELINES

5. GENERAL PLAN AND ZONING MAP AMENDMENTS

1. PROPOSED AMENDMENTS TO TOWN OF MORAGA GENERAL PLAN

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

CD1.1 Location of New Development. To the extent possible, concentrate new development in areas that are least sensitive in terms of environmental and visual resources, including:

a) Areas of flat or gently sloping topography outside of flood plain or natural drainage areas.
b) The Moraga Center area and Rheem Park area.
c) Infill parcels in areas of existing development.

See Appendix G for a Development Constraints Map that identifies the degree to which development constraints are present in larger undeveloped areas in Moraga.

~~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% of 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 Hillsides and Ridgelines

The goals and policies in this section apply to hillside areas and ridgelines in Moraga. Hillsides 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.

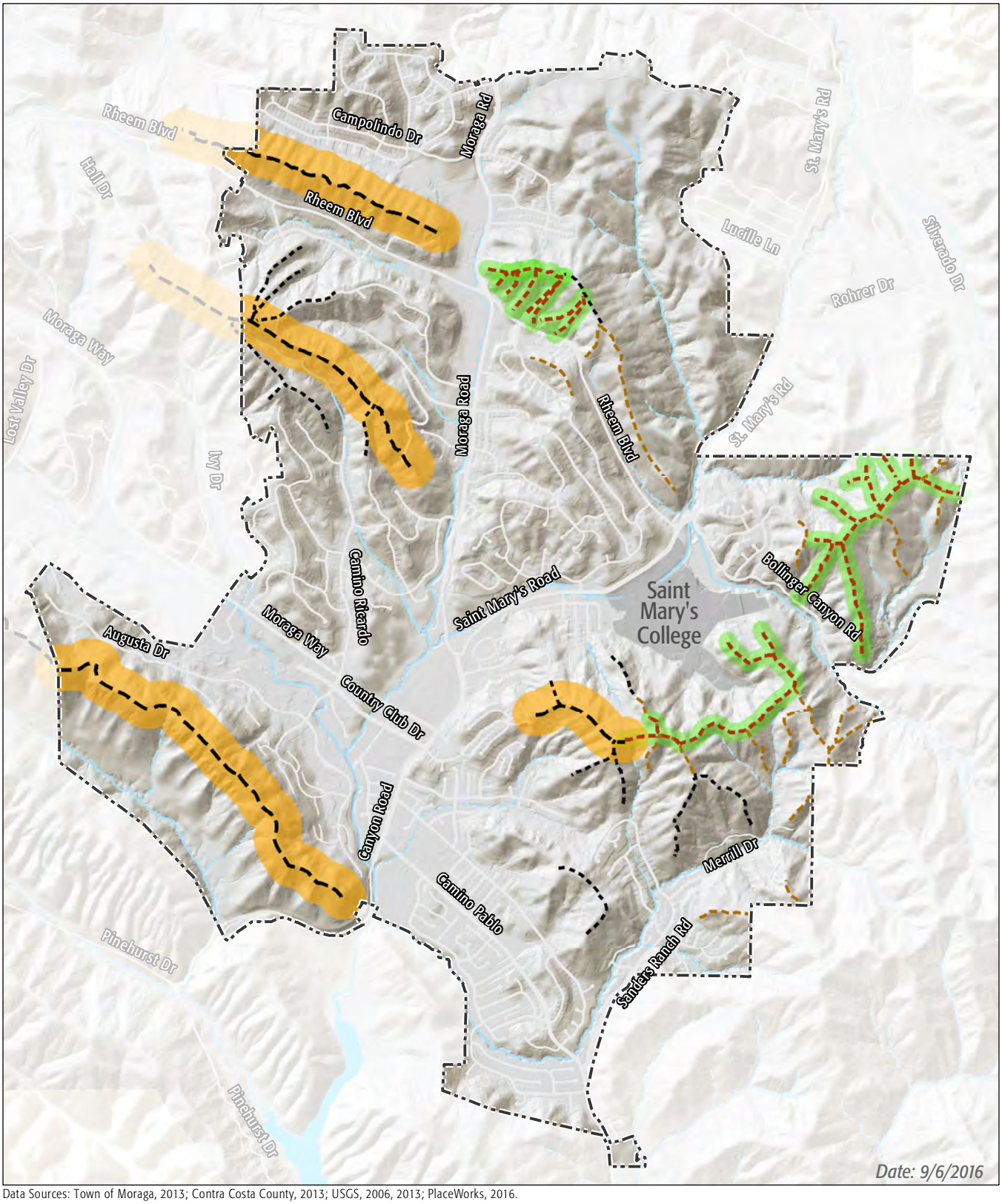
CD8.3: Public Safety. Regulate land use and development in hillside and ridgeline areas in a manner that prioritizes the protection of residents, neighbors, and the community at large from landslides, earthquakes, and other natural hazards.

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 only 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; USGS, 2006, 2013; PlaceWorks, 2016.

MOSO Ridgelines
- MOSO Major Ridgelines
- MOSO Minor Ridgelines
- 500 Foot Buffer for Major MOSO Ridgelines
- Town Boundary

Non-MOSO Ridgelines
- Significant Non-MOSO Ridgeline
- Other Non-MOSO Ridgeline
- 200 Foot Buffer for Significant Non-MOSO Ridgelines

DESIGNATED RIDGELINES
FIGURE CD-1

0 0.5 1 Miles

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 Chapter ~~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.

~~3.~~

A road that crosses a Major MOSO Ridgeline, a Minor MOSO Ridgeline, or a Significant Non-MOSO Ridgeline may extend parallel to the ridgeline only the maximum distance necessary to cross the ridgeline while minimizing its visibility when viewed from a street or other public place. On-street parking is prohibited on roads crossing a ridgeline.

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. See Open Space Element policies OS1.7 and OS1.8 for cases where the Town may allow development in areas where it is otherwise prohibited. ~~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. If the average predevelopment slope of the area of disturbance is twenty (20) percent or greater, the area of disturbance shall be classified as a hillside area regardless of the average slope of the parcel or site in which the area of disturbance is located.

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

A M~~m~~*ajor MOSO R*~~r~~*idgeline* 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~~m~~*inor MOSO R*~~r~~*idgeline* 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 Figure CD-1 as a Significant Non-MOSO Ridgeline.

An Other Non-MOSO Ridgeline 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.~~

GENERAL PLAN APPENDX G

DEVELOPMENT CONSTRAINTS MAP AND ANALYSIS

Figure G-1 presents the results of a development constraints analysis for larger undeveloped sites in Moraga. This analysis was conducted in 2016 as part of the Hillsides and Ridgelines project to help identify areas most suitable for development and the degree to which development constraints are present in areas where future development may be possible. This development constraints map and analysis is intended to help the Town interpret and apply General Plan Policy CD1.1, which encourages the Town to "concentrate new development in areas that are least sensitive in terms of environmental and visual resources."

As shown in Figure G-1, mapped green areas have "very low" to "medium" constraint levels. Mapped yellow, orange, and red areas have "medium high" to "most constrained" constraint levels. Areas without a color were excluded from the analysis as they are already developed or have no possible future development potential.

The results of the development constraints analysis as shown in Figure G-1 is intended for planning purposes only. It is possible that development constraints may be present on a site that were not included in the analysis. Site specific studies will be necessary to identify constraints locations most suitable foe development as part of any proposed development project.

Methodology

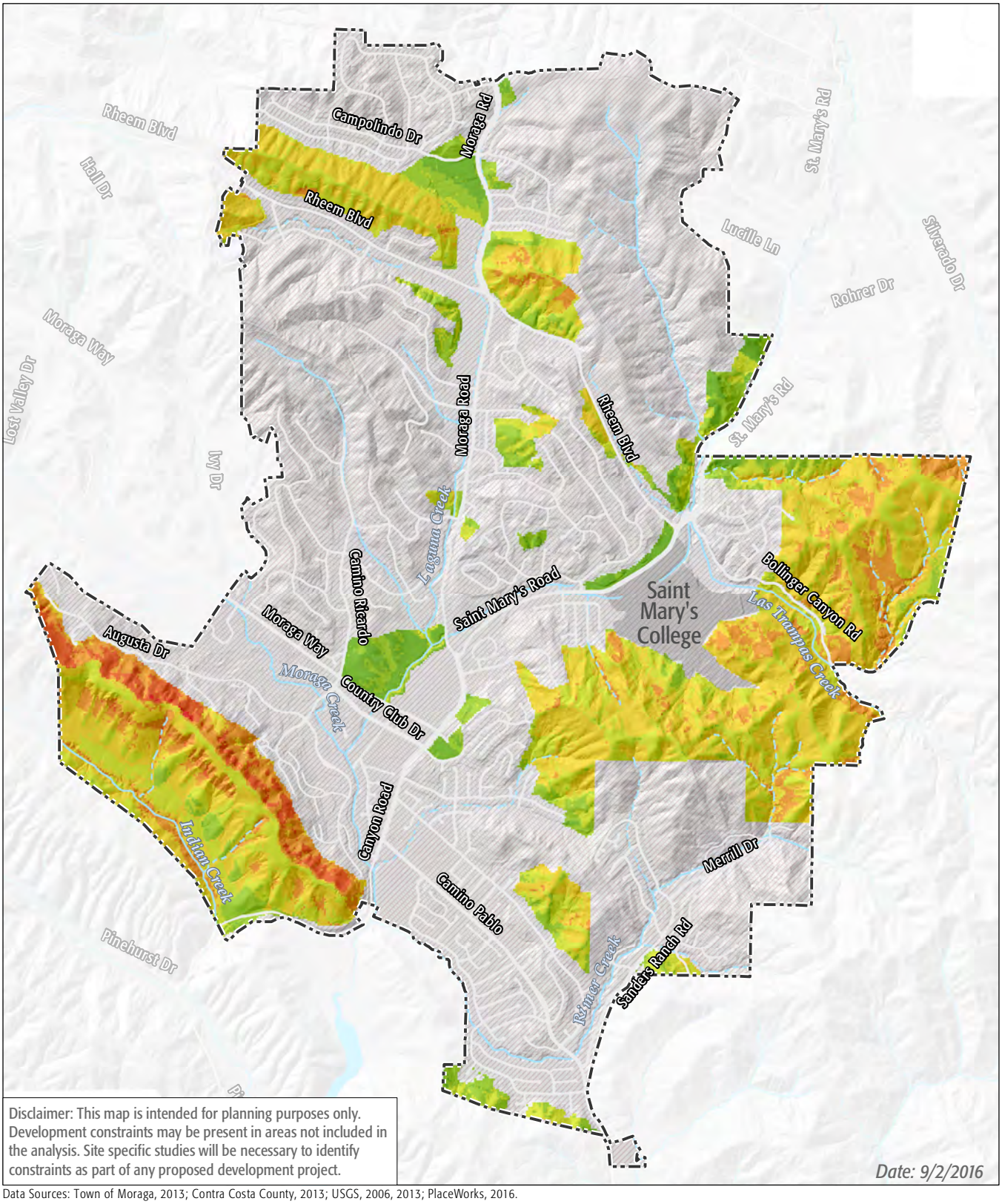
To create the development constraints map, the Town's consultant PlaceWorks prepared a "weighted raster overlay model" using GeoPlanner, a Geographic Information System (GIS) tool. The "study area" for this analysis was limited to areas that include the remaining large development sites in Moraga. To 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.



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: 9/2/2016

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

Town Boundary
Major/Permanent Stream
Minor/Intermittent Stream

Constraint Level
- Very Low
- Low
- Medium Low
- Medium
- Medium High
- High
- Very High
- Most Constrained
- Excluded from Analysis

0 0.5 1 Miles

FIGURE LU-2
DEVELOPMENT CONSTRAINTS MAP

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, submect 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.

2. PROPOSED AMENDMENTS TO MORAGA MUNICIPAL CODE

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 8.12 – Administrative Procedure

Section 8.12.120 - Specific Findings Necessary for Conditional Use Permit

To approve a Conditional Use Permit for a hillside development project as specified in Municipal Code Section 8.136.020 (Applicability), the review authority shall make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) in addition to the findings provided above.

8.12.130 - Specific Findings Necessary for Variance

To approve a Variance for a hillside development project as specified in Municipal Code Section 8.136.020 (Applicability), the review authority shall make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) in addition to the findings provided above.

8.12.140 - Findings for Approval of Subdivision

C. To approve a tentative map or parcel map for a hillside development project as specified in Municipal Code Section 8.136.020 (Applicability), the review authority shall make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) in addition to the findings and determinations required by Municipal Code Title 16 (Subdivisions) and the California Subdivision Map Act.

8.48.100 - Findings Required to Approve Conceptual Development Plan

To approve a conceptual development plan for a hillside development project as specified in Municipal Code Section 8.136.020 (Applicability), the review authority shall make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) in addition to the findings provided above.

8.48.110 – General Development Plan Approval

C. The general development plan shall be submitted to the planning commission for approval in accordance with the procedure required for issuance of a conditional use permit. The planning commission shall approve, approve with conditions or disapprove the general development plan. To approve a general development plan for a hillside development project as specified in Municipal Code Section 8.136.020 (Applicability), the review authority shall make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval).

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 XX~~14~~-16~~92~~ 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 hillsides 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.** Development shall comply with the visual separation standard in Section 8.128.040 (Visual Separation).

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 – Visual Separation

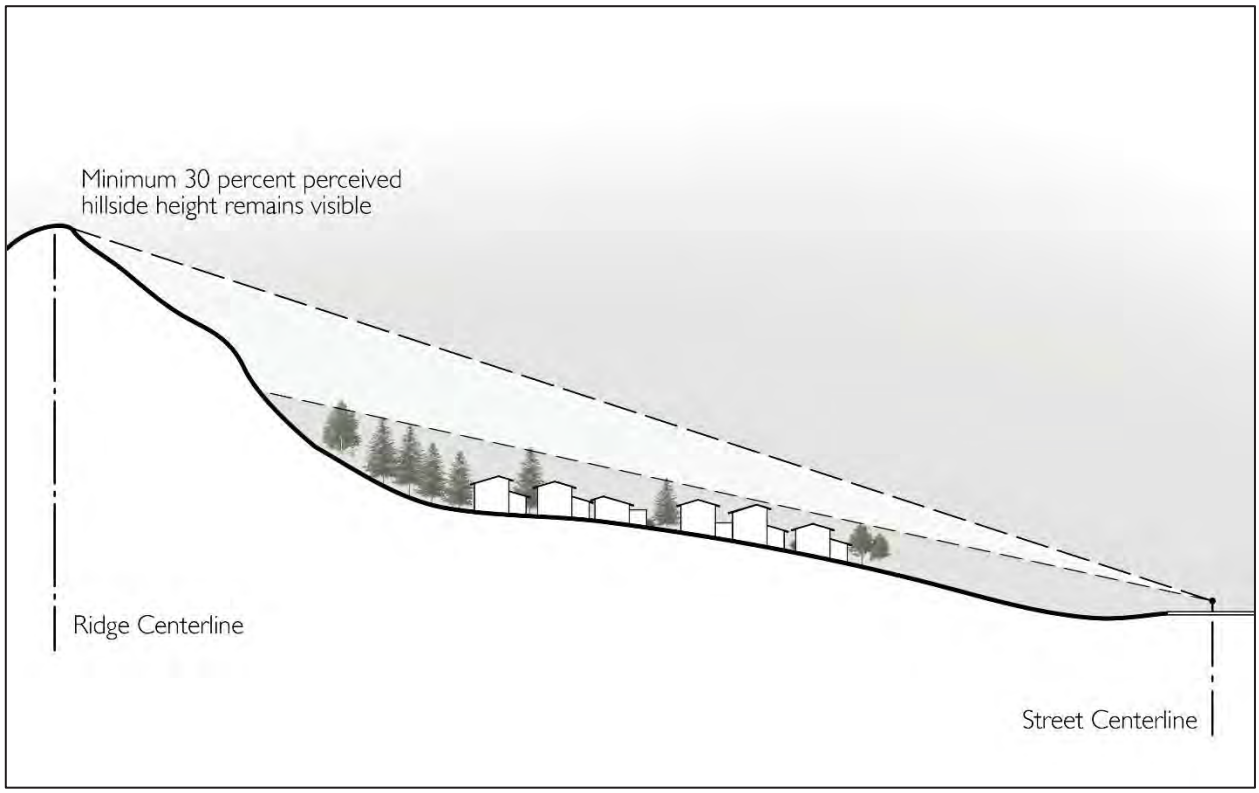
A. Applicability. The ~~following~~ visual separation requirements in this section apply to undeveloped properties where a Major MOSO Ridgeline, Minor MOSO Ridgeline, or Significant Non-MOSO Ridgeline is visible immediately behind the property when viewed from the public right-of-way centerline of an adjacent scenic corridor.

~~A.~~B. Standards.

1. Structures must be located and designed so that a minimum of 35 percent of the perceived vertical height of a hillside as observed from all viewpoints along a scenic corridor remains visible above a structure and below the ~~Significant Non-~~

~~MOSO R~~ridgeline. See Figure 18.128-1. This requirement does not apply to existing and proposed new landscaping.

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



2. For proposed structures located such that they would have any effect on the view of a ~~Significant Non-MOSO R~~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.

3. 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.

C. Exception to Visual Separation Requirement.

1. The Town Council may grant an exception to the Visual Separation standard in ~~paragraph~~ Subsection B (Standards) ~~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.

2. 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.

3. When approving the exception, the Town Council may attach conditions to the project approval to ensure that:

a. The project achieves the intent of maintaining a visual separation between structures and the ridgeline to the greatest extent possible.

b. The proposed development does not pose an unreasonable threat to the public health, safety, or welfare and is consistent with the public interest.

c. The proposed project is otherwise consistent with the General Plan and all other applicable Town plans, policies, and regulations.

8.128.040 – Streets

~~B.~~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.

~~C.~~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 and ridgelines 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 and ridgelines), 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 I L~~	~~or S =~~	~~100 I L~~
~~Where~~	~~S = average percent slope;~~ ~~I = 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, variance, conceptual development plan, general development plan, 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 project that requires only a Hillside Development Permit, the review authority shall make all of the findings below. To approve a proposed project subject to the requirements of this chapter a specified in Section 8.136.020 (Applicability) which requires a use permit, variance, conceptual development plan, general development plan, grading permit, subdivision map, or other discretionary permit, the review authority shall make all of the findings below in addition to the findings required for the other discretionary permit(s).

~~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.~~

14.08.030 - Design Review Administrator—Required Findings

For hillside development projects specified in Municipal Code Section 8.136.020 (Applicability), the design review administrator must also make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) to grant a permit.

14.12.030 - Design Review Board—Action

For hillside development projects specified in Municipal Code Section 8.136.020 (Applicability), the design review board must also make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) to grant a permit.

14.16.030 - Town Council—Direction

For hillside development projects specified in Municipal Code Section 8.136.020 (Applicability), the Town Council must also make all of the findings in Municipal Code Section 8.136.050 (Findings for Approval) to grant a permit.

3. PROPOSED AMENDMENTS TO GUIDELINES FOR INTERPRETING AND IMPLEMENTING THE MORAGA OPEN SPACE INITIATIVE (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 "G~~D~~".

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. See Section III.A.3 for cases where the Town may allow development in areas where it is otherwise prohibited. ~~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 "G~~E~~";

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 "G~~E~~" — Sample Ballot and Voter Information Pamphlet, Consolidated General Municipal Election, Tuesday, April 8, 1986

T~~t~~he 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~~ June 2014~~6~~.

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 more 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 Area~~s~~

1. Preliminary Identification of High Risk Areas

~~The areas located within a cell designated 1, 2, 3 or 4 on t~~ The ~~Development Capability~~ Preliminary High Risk Determination Map (Exhibit "D") identifies areas ~~are~~ 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~~:~~ described in this section. The final determination of high risk areas shall be based on an analysis of development constraints that utilizes site-specific geological studies and replicates the methodology used for the preliminary high risk determination as described in Appendix F.

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 c~~C~~onditions 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 "C~~Part II.C- Slope Calculations)";

    b) Within 500 feet of a ~~m~~Major MOSO ~~r~~Ridge line(Exhibit "B");

    c) on a M~~m~~inor MOSO ~~r~~Ridgeline (Exhibit "B") and

2. Property situated on a M~~m~~inor MOSO ~~r~~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 ridgeline, if the Planning Commission finds 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; and 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~~the crossing is necessary for the orderly development of the Town and does not otherwise conflict with the Municipal Code~~.

4. –A road that crosses a ridgeline may extend parallel to the ridgeline only the maximum distance necessary to cross the ridgeline while minimizing its visibility when viewed from a street or other public place. On-street parking is prohibited on the portion of a road crossing a ridgeline.

5. 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 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 CD8~~5~~ 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 ~~m~~Major or ~~m~~Minor MOSO ~~r~~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, ~~T~~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 ~~ro~~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

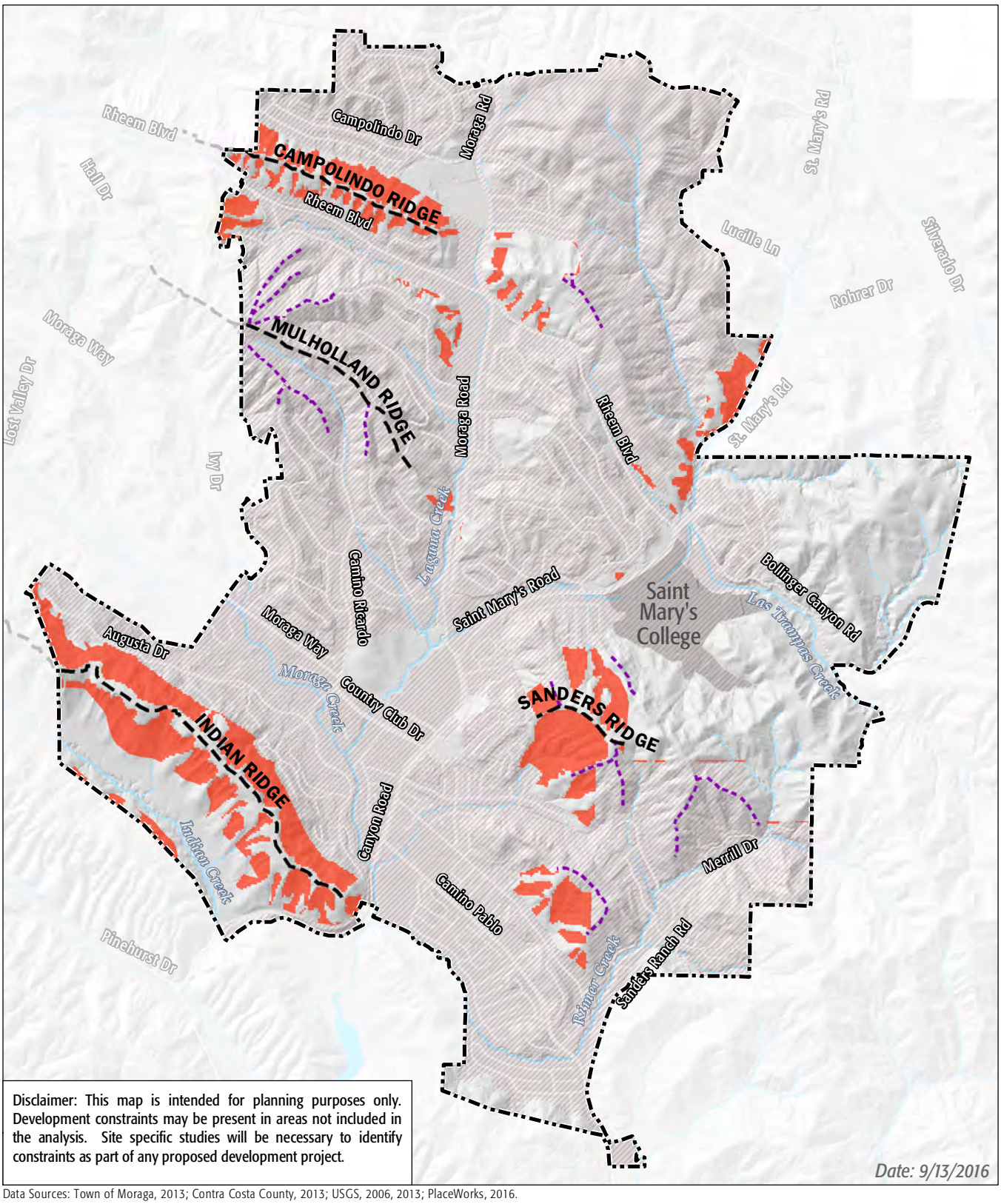
1. *Fees.*

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.

PLACEWORKS



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.

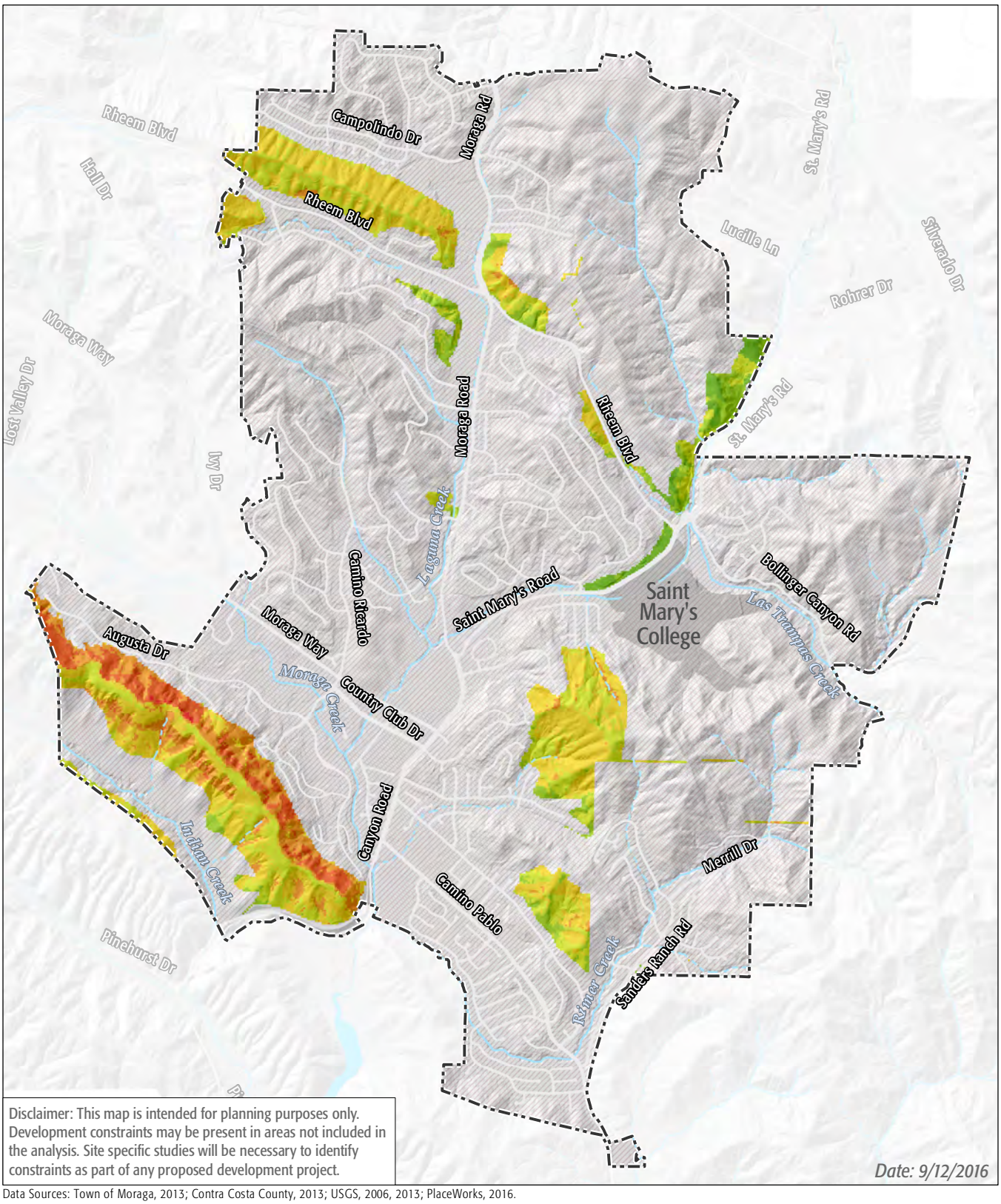
Date: 9/13/2016

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

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

EXHIBIT D
PRELIMINARY HIGH RISK DETERMINATION MAP

0 0.5 1 Miles



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: 9/12/2016

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

Town Boundary
MOSO Minor Ridgelines
MOSO Major Ridgelines
Major/Permanent Stream
Minor/Intermittent Stream

Constraint Level
Very Low
Low
Medium Low
Medium
Medium High
High
Very High
Most Constrained
Excluded from Analysis

0 0.5 1 Miles

EXHIBIT E
DEVELOPMENT CONSTRAINTS MAP

4. PROPOSED AMENDMENTS TO TOWN OF MORAGA DESIGN GUIDELINES

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.

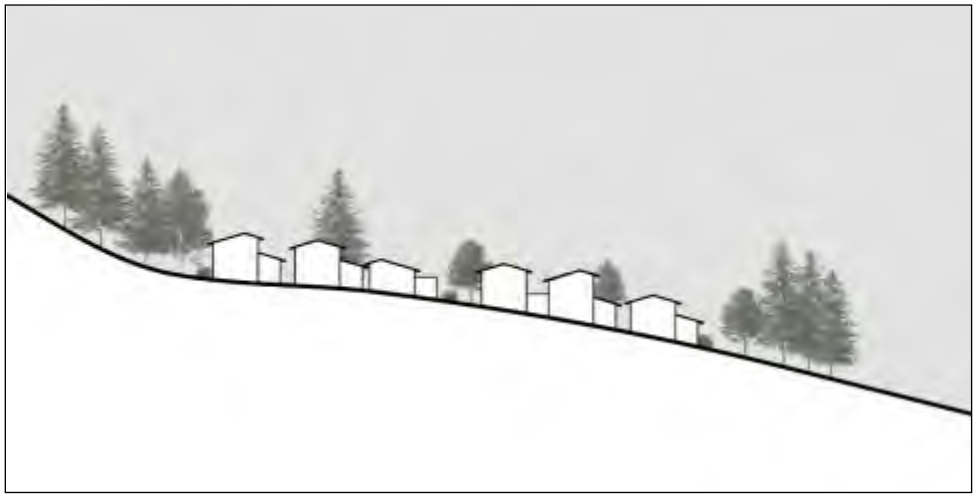
Applicants for a development projects shall submit a constraints analysis that identifies the location of these constraints on the site and demonstrates that development avoids these constraints to the greatest extent possible.

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.

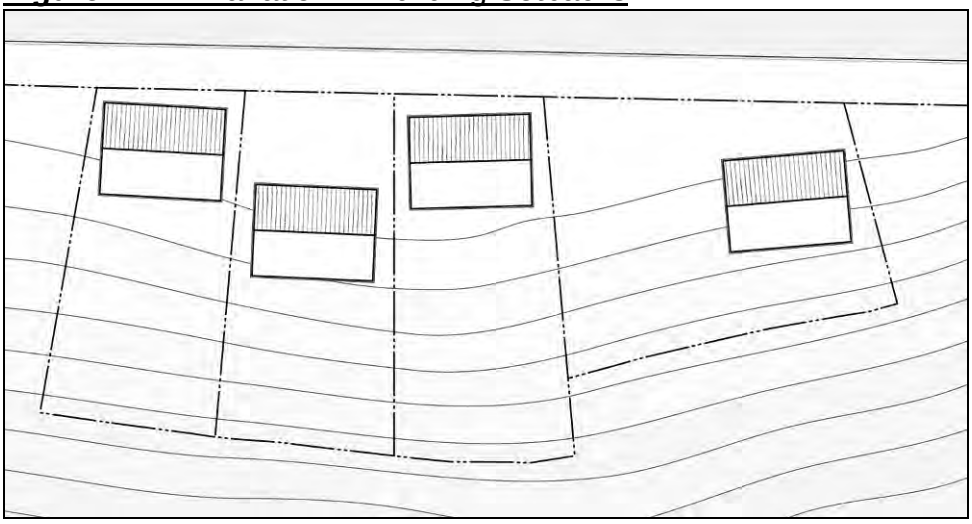
Variation in the placement, orientation, setbacks, and architectural styles of homes creates visual interest in Moraga hillside subdivision

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

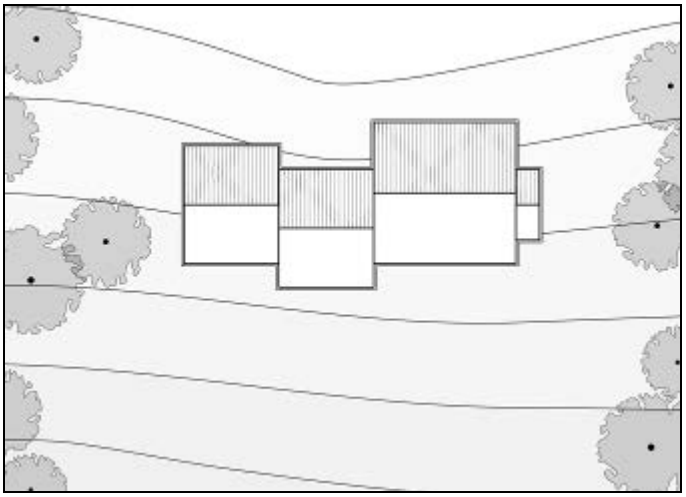
Guidelines:

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.

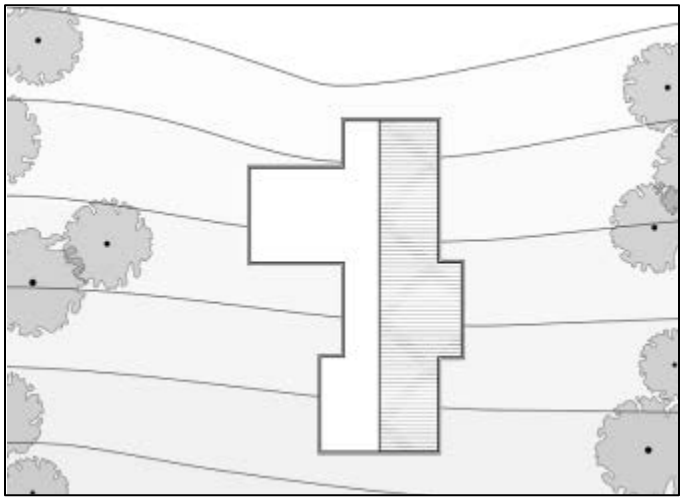
RH3.3 Proximity to Front Property Lines. On downhill lots, buildings should be located close to the front property line to reduce building mass that hangs over or steps down the slope.

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



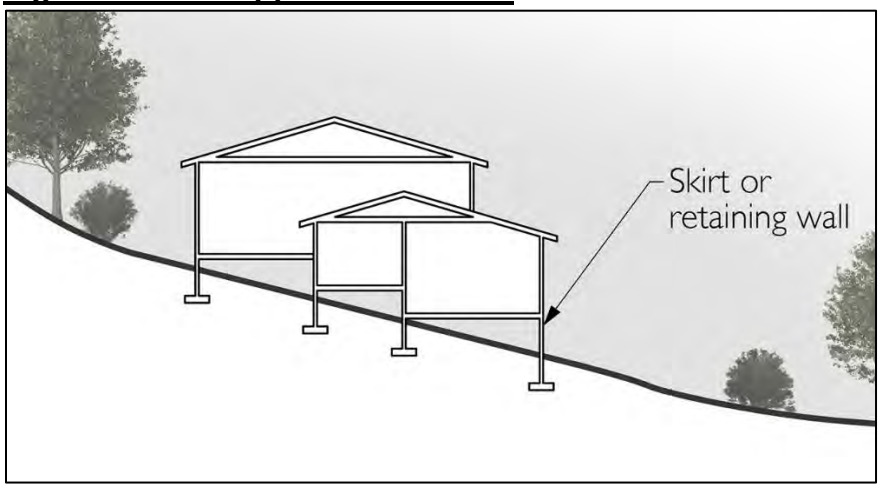
DON'T DO THIS

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.

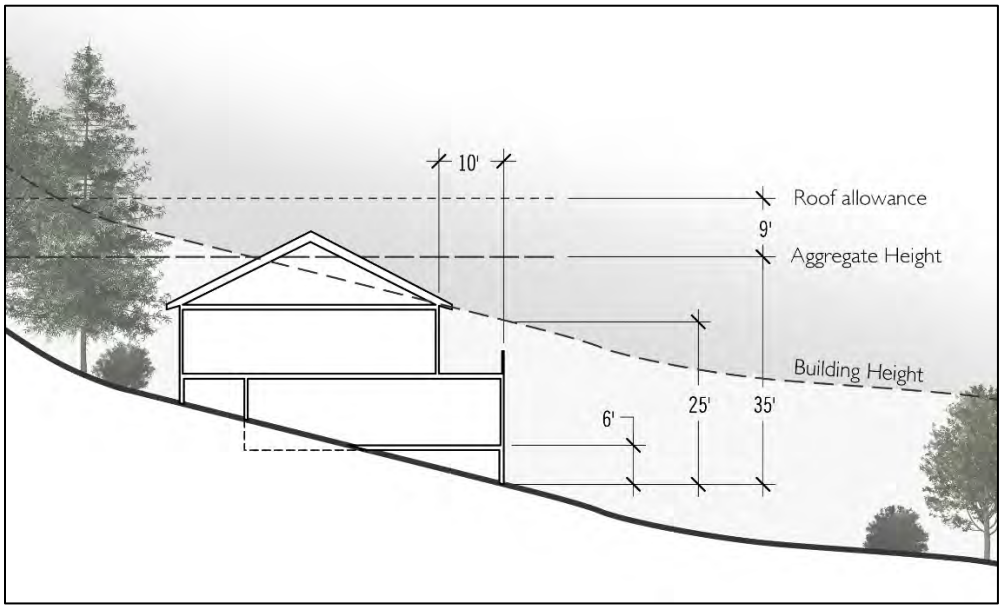
A. Building Height and Stepbacks

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 stepback 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:

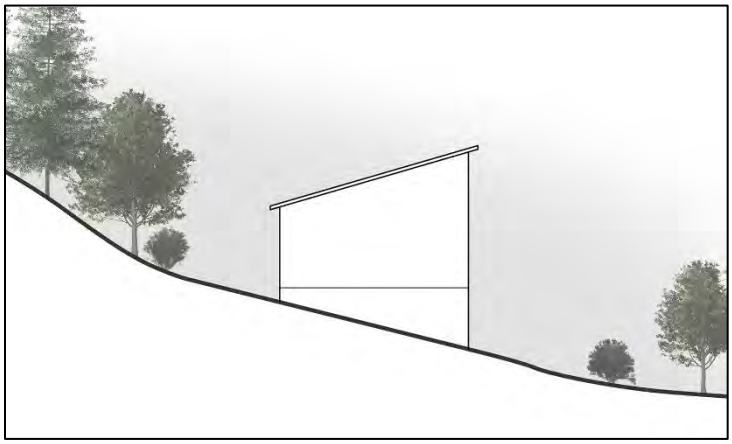
RH4.5 Roofs. Roofs should be designed to minimize the visual prominence of buildings and complement the surrounding landscape. This may be accomplished by:

- 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:

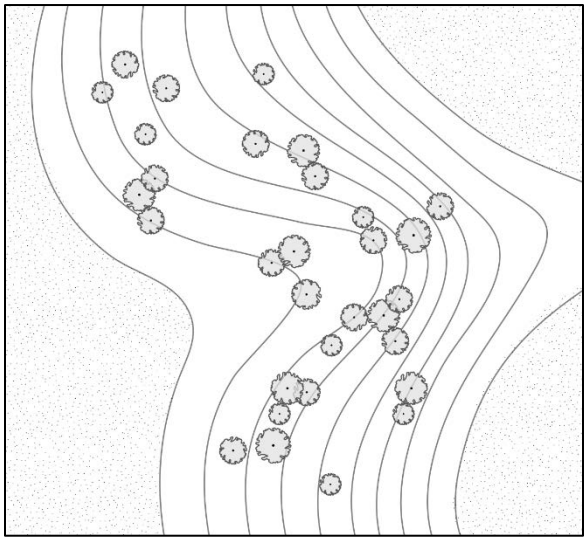
RH5.1 Contour Grading. Contour grading techniques should be used to blend with natural slopes and achieve a natural appearance. The following concepts shall be utilized:

- 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.

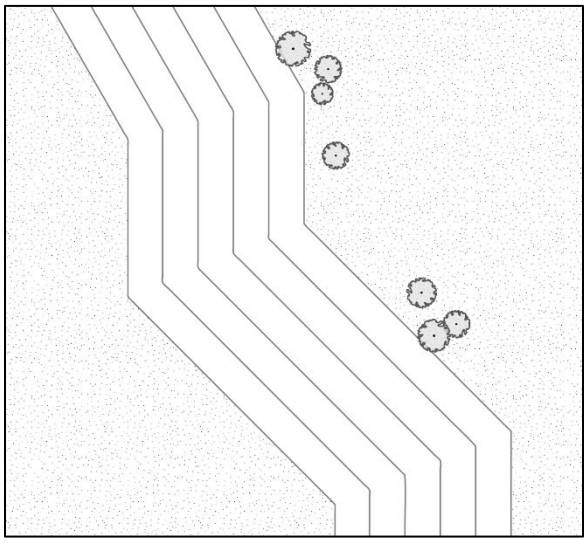
RH5.3 Restoration of Original Topography. After completion of construction, areas of disturbance should be restored as closely as possible to their original topography.

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.

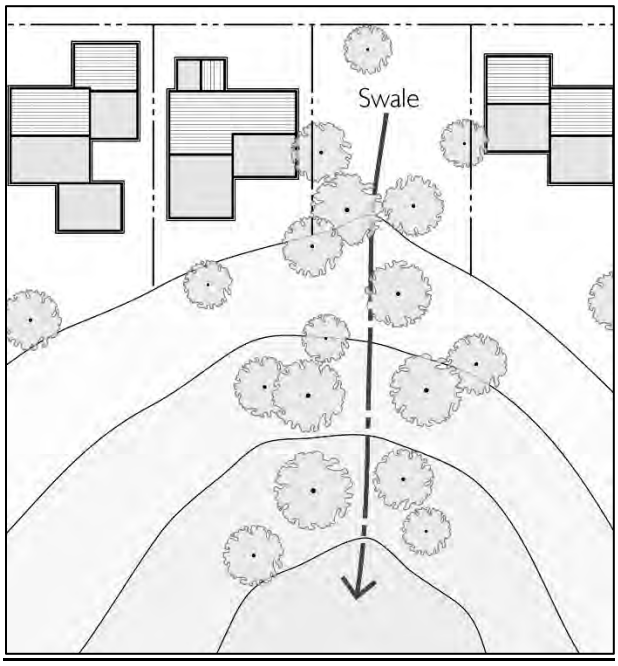
RH6.3 New Trees.

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.

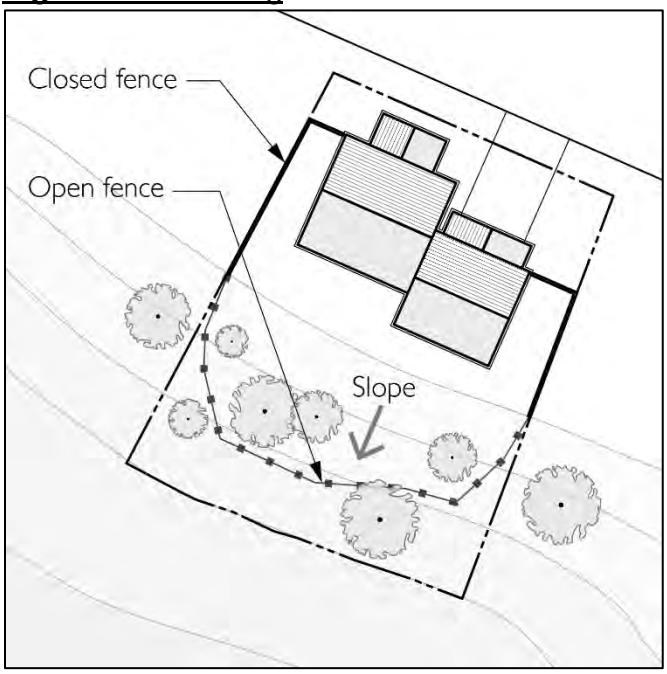
B. Fences

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 veneer 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.

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 Ratio~~n~~ (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.

The maximum FAR guidelines in Table 2 apply to proposed homes that are:

1. On a lot with an area of 20,000 square feet to 1 acre.
2. ~~For proposed homes v~~Visible from a public place; and
3. ~~on lots with an average slope of 15 percent or more~~On a parcel or site with an average slope of twenty (20) percent or greater; or where the area of disturbance for the home has an average predevelopment slope of twenty (20) percent or greater.~~.~~

~~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.

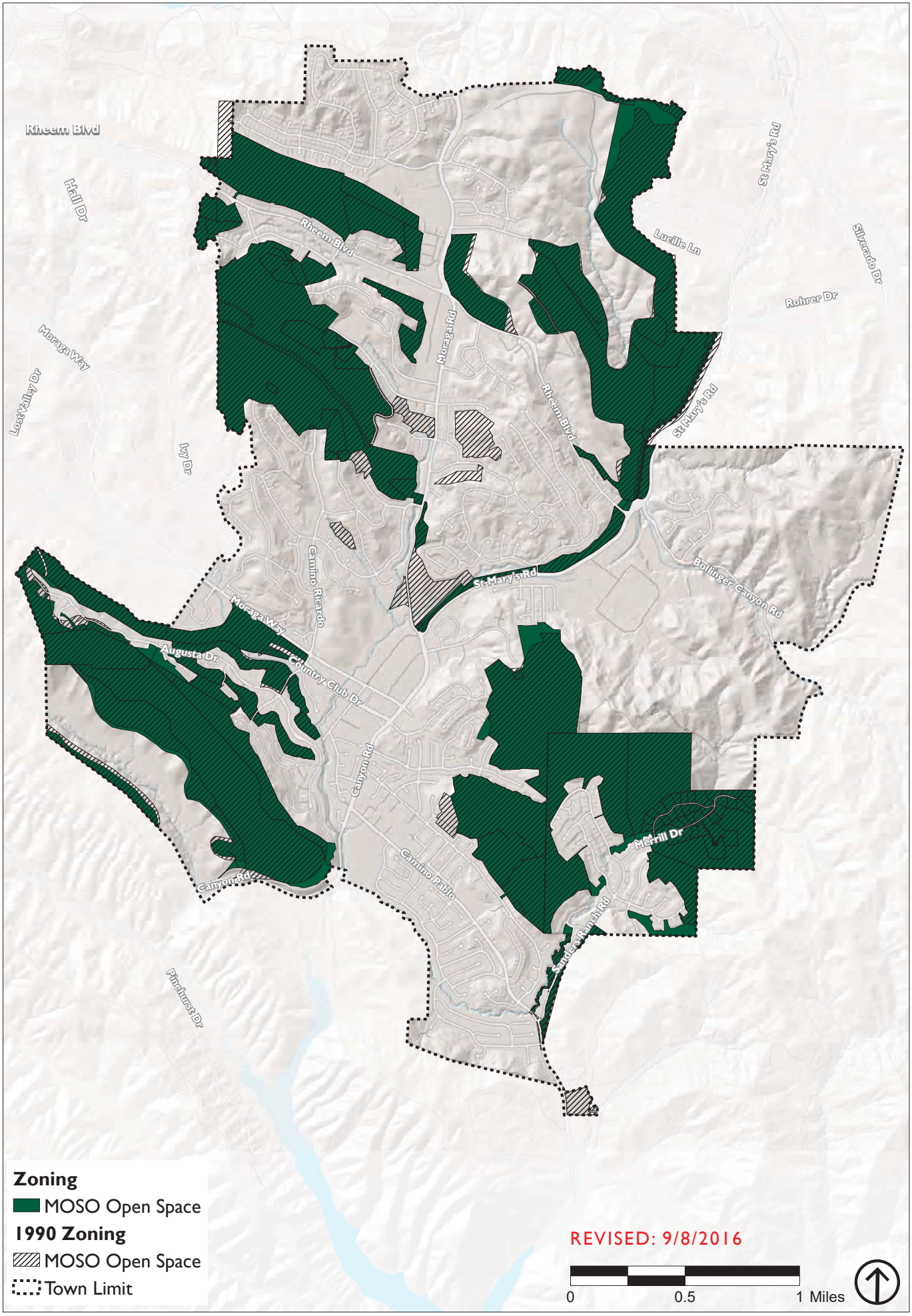
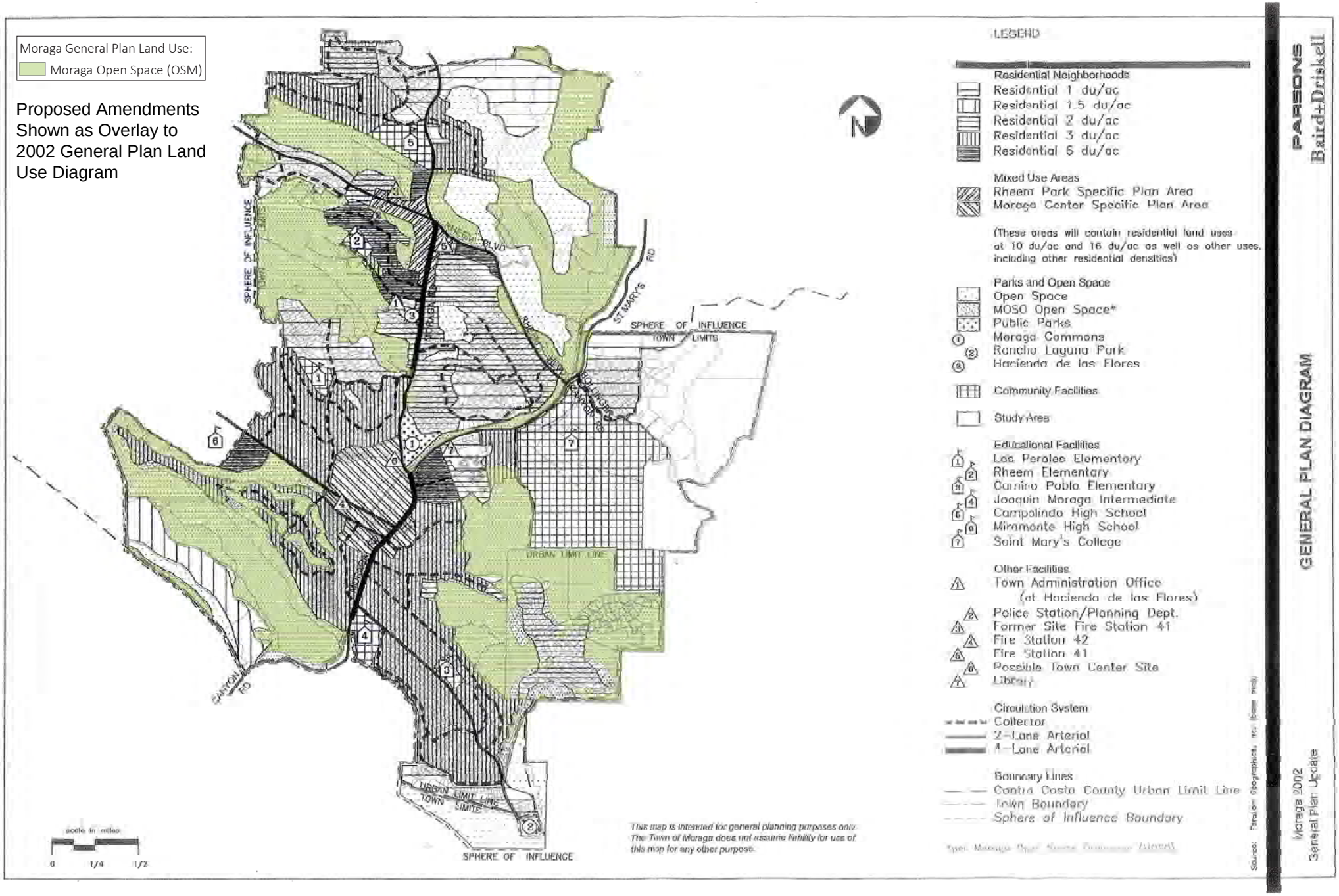
Table 2: Maximum FAR – Lots 20,000 Sq. Ft. to 1 Acre

Lot Size (sq. ft.)	FAR	Home Size (~~acres~~sq. ft.)
20,000	0.24	4,810
21,000	0.23	4,920
22,000	0.23	5,000
23,000	0.22	5,072
24,000	0.21	5,137
25,000	0.21	5,190
26,000	0.20	5,230
27,000	0.20	5,267
28,000	0.19	5,298
29,000	0.18	5,333
3,0000	0.18	5,362
31,000	0.17	5,382
32,000	0.17	5,400
33,000	0.16	5,413
34,000	0.16	5,425
35,000	0.16	5,438
36,000	0.15	5,444
37,000	0.15	5,451
38,000	0.14	5,457
39,000	0.14	5,465
4,0000	0.14	5,471
41,000	0.13	5,481

42,000	0.13	5,490
43,000	0.13	5,498
43,560	0.13	5,500

5. DRAFT AMENDED GENERAL PLAN LAND USE DIAGRAM AND ZONING MAP, SEPTEMBER 2016

TOWN OF MORAGA ZONING MAP - DRAFT



DRAFT AMENDED GENERAL PLAN LAND USE DIAGRAM, MOSO OPEN SPACE
SEPTEMBER 2016