

BEFORE THE TOWN OF MORAGA TOWN COUNCIL

In the Matter of:

A denial of an appeal; thereby, upholding the Planning Commission's decision approving)	Resolution No. 3 - 2002
A Mitigated Negative Declaration, Hillside Development Permit and Vesting Tentative Map For "Los Encinos")	File No.: Sub. 8444

WHEREAS, the property owner authorized John Wyro ("Applicant") to submit applications to the Town of Moraga for a Hillside Development Permit and Vesting Tentative Map (Subdivision 8444) for approval of an 11 lot subdivision, including 10 single-family residential lots (7.4 acres) and a designated remainder parcel (58.1 acres); and

WHEREAS, an Initial Environmental Study was prepared for the project by Mills Associates ("Consultant"), in accordance with the California Environmental Quality Act (CEQA), with a determination for a Mitigated Negative Declaration. The Initial Study was circulated for public comment as required by CEQA and CEQA Guidelines; and

WHEREAS, the Town Planning Commission duly noticed and conducted public hearings on August 6, 2001, October 1, 2001 and November 5, 2001 to receive public input concerning the project; and

WHEREAS, on November 5, 2001 the Planning Commission made all of the necessary findings and approved the Mitigated Negative Declaration, Hillside Development Permit and Vesting Tentative Map (Sub. 8444) by adopting Resolution No. 21-01 PC; and

WHEREAS, on November 12, 2001 Jane and Mike Larkin appealed Resolution No. 21-01 PC approving the Mitigated Negative Declaration, Hillside Development Permit and Vesting Tentative Map (Sub. 8444); and

WHEREAS, on December 12, 2001 the Town Council held a public hearing to consider the appeal and received testimony from the appellant, applicant and interested parties.

NOW, THEREFORE, BE IT RESOLVED that the Moraga Town Council hereby denies the appeal; thereby upholding the Planning Commission decision approving the Mitigated Negative Declaration, Hillside Development Permit and Vesting Tentative Map (Sub. 8444) for an 11 lot subdivision, including 10 single-family residential lots (7.4 acres) and a designated remainder parcel (58.1 acres), with the findings listed below, and subject to the conditions listed herein:

PART I – MITIGATED NEGATIVE DECLARATION

The project has been studied under a Mitigated Negative Declaration. With the recommended mitigation measures imposed, and based on the evidence received, all potentially significant effects on the environment will be reduced to a point where clearly no significant effect would occur.

PART II – FINDINGS:

A. HILLSIDE DEVELOPMENT PERMIT FINDINGS

Under Section 8.136.050 of the Moraga Municipal Code, a hillside development permit is required for development on hillside land (slopes greater than 20 percent). In reviewing an applicant for a hillside development permit, Section 8.136.070 of the Municipal Code requires that the Planning Commission consider the following four standards:

- 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."* The Planning Commission finds that the project is in substantial compliance with Section 8.136.070 A, as follows:

1. Slope

The site is bisected northwest to southeast-trending ridge. The southeast half of the property gradually rises to meet the ridge, and then falls off steeply to the northeast. A relatively flat valley begins at the base of the slope and makes up the northeastern half of the property. General Plan Policy 10(f) prohibits residential structures to be placed on slopes of 25% or steeper. The original Vesting Tentative Map showed pads graded to a 3:1 slope (33% slope). The applicant has submitted a revised grading plan showing that the proposed project is consistent with General Plan Policy 10(f).

2. Soil Instability

Landslide activity is present in the steeper areas of the site. Reconnaissance mapping supplemented by limited subsurface exploration confirmed approximately six landslides within the project area, suggesting that land sliding primarily involves surficial materials and severely weathered claystone bedrock. Earthflows and slumps are slow moving slides. Within the development area, slides would be removed/stabilized. The details of the repairs would be a part of the design level geotechnical and geological investigation. The cross-sections in the Engeo report indicate conceptually how slope stabilization would be accomplished. Slides in open space that do not pose an injury or loss of life hazard would not be graded. The conditions of approval (see Exhibit B) require implementation of the mitigation measures on pages 4-18 to 4-22 of the Mitigated Negative Declaration and the recommendations of the Town Geotechnical Engineer.

3. Drainage

A major portion of the northern edge of the site follows an intermittent stream in a deeply incised channel. Part of the creek channel is contained within the property. A similar intermittent stream course follows a portion of the southwest boundary of the site. In 1998, the Town's Engineering Consultant (KCA Engineers, Inc.) issued a drainage study for the subwatershed that includes the project site. The applicant has performed 10 year and 100 year hydrology studies for the project. The ten-year analysis reveals proposed flows exceed the capacity of existing offsite drainage facilities. A hydrology analysis of the site, including history, maps and diagrams, existing conditions, proposed project runoff, remedies including alternatives, impacts, and mitigation measures is summarized in Section 4.3 of the Mitigated Negative Declaration.

The applicant has performed preliminary stormwater modeling and ascertained that it is feasible to detain post development stormwater flow on-site and discharge at or below pre-development rates. In lieu of improving downstream drainage facilities to mitigate drainage impacts, the current plans show a proposed on-site underground detention pipe located along the side of the new street. The conditions of approval require the applicant to submit a detailed hydrological analysis for review and approval by the Town Engineer to verify that with the construction of the proposed drainage system, the site's post development runoff will discharge at or less than pre-development levels.

To further mitigate drainage impacts, the proposed conditions of approval require the applicant to implement the mitigation measures summarized on page 4-30 of the Mitigated Negative Declaration and the requirements of the CCFCD and Town Engineer.

4. Soil Characteristics

Landslide activity is present in the steeper areas of the site. Engeo, Inc. performed an initial investigation of the site and documented their findings in a report dated August 3, 2000. The purpose of the investigation was to provide sufficient data to make preliminary assessment of geologic and seismic geological hazards; provide general recommendations and criteria for site grading, drainage and foundation design; and provide geologic and geotechnical input into the constraints analysis which preceded formulation of the tentative subdivision map. The conditions of approval require implementation of the mitigation measures on pages 4-18 to 4-22 of the Mitigated Negative Declaration and the recommendations of the Town's Geotechnical Engineer.

5. Seismic Factors

The site is located within the seismically active Bay area. The risk of fault rupture is considered minimal as ground-shaking damage is mitigated by compliance with the seismic design standards of the Uniform Building Code. The potential for liquefaction and lurch cracking are rated low and very low, respectively. With effective implementation of the recommended grading solutions, the risk of seismically induced landsliding should be low. The applicant's geotechnical engineer recommends subdrains in all keyways and in swales, as well as in the upslope side of excavations required to construct the recommended buttress/catchment areas. The conditions of approval require implementation of the mitigation measures on pages 2-10 to 2-12 of the Mitigated Negative Declaration and the recommendations of the Town Geotechnical Engineer.

6. Existing and Future Residential Development

The site is currently undeveloped and was formerly used for grazing activities. The property is surrounded by single-family residential development to the south, west and north and grazing land to the east. The project is contained on 7.4 acres of the 65.5-acre site and will be compatible with existing adjacent residential development. Future residential development will require review and approval by the Design Review Board. The architectural plans submitted with this application are conceptual only. They demonstrate that it is possible to site a home on the proposed lots but they are not approved as part of this application.

7. View Shed

Adjacent houses fronting on Larch Avenue have views of Gudde Ridge to the west and the Oakland hills. Their rear views are of the hillside directly behind the houses where new construction will occur. Residents of Sanders Ranch overlook the project site and have westerly views of these same hills and ridge line. The new houses will not impede the scenic westerly views for either the Larch Avenue or Sanders Drive residents.

The site can also be seen from some of the residences of the Moraga Country Club. However, the distance between these houses and the proposed project minimizes the visibility of the project and the appearance will be of the new houses blending in with the existing development.

Some of the homes on Kettelsen Drive, including the home at 4 Kettelsen Drive, currently have views to the north and southeast across the vacant site. Following construction of the project, these views may be partially impeded. The scenic easements at the rear of the upslope lots are intended to help preserve some of these existing views.

There are eight houses on Larch Avenue, two houses on Baitx Drive and one house on Louise Court adjacent to the project site. Following completion of the project, these residents will view the rear elevations of five homes rather than the existing grassy hillside. To minimize the visual and privacy impacts of the new homes, the conditions of approval include the following requirements:

- Any two-story homes on Lots #1-10 would be subject to review and approval by the Design Review Board consistent with the Town's Design Guidelines that prohibit more than two 2-story homes on adjacent lots.
- Lots #1 and 10 are transition lots and should be addressed as such during the design review stage.
- A tree screen is required along the rear of the Lots 1-5. The screen trees would be a mix of native species at least 15-gallon in size. If any adjacent neighbor would prefer to have the tree screen located on their property, it would be planted at the developer's expense.
- The applicant proposes to preserve a row of mature Monterey pine that extends along the southern property boundary, downslope from Lots 2, 3 and 4. The conditions of approval require the applicant to record deed restrictions on these lots to restrict future homeowners from removing these trees.

8. Access

Access to the subdivision is proposed from Baitx Drive via Larch Avenue. The proposed street will consist of an approximately 450 foot long privately owned and maintained cul-de-sac. The conditions of approval require that a homeowners association or private maintenance assessment district be formed to guarantee maintenance of the private street, storm drain system and other commonly shared facilities within the development.

To provide adequate emergency access, cars should not be allowed to park straight into the proposed cul-de-sac. A proposed condition of approval requires the applicant to request the Town Council to adopt a resolution that provides for the enforcement of the provisions of the California Vehicle Code on private streets. If the Code amendment is approved, "Park Parallel" signs would be installed, at the applicant's expense, along the private street.

Public trails are proposed on portions of the 58.1-acre designated remainder parcel which would connect to the regional "Moraga Ranch" trail. The conditions of approval require the developer to file a use permit application (pursuant to Municipal Code Section 8.52.110) for the proposed public trails system. In the event that the use permit is not approved by the Town, there would be no further obligation for the developer to dedicate or construct the proposed trail system.

A 20-foot wide Emergency Vehicle Access (EVA) easement and public access easement is proposed in the side yards of Lots #5 and 6 (i.e., between the end of the proposed cul-de-sac and the adjacent designated remainder parcel).

The proposed conditions of approval also require the applicant to implement the mitigation measure on page 3-18 of the Mitigated Negative Declaration and the recommendations of the Moraga-Orinda Fire Protection District and Town Engineer).

9. Potential Traffic Congestion

A traffic impact analysis by TJKM Transportation Consultants dated August 18, 2000 concluded that the nearby local streets (Larch Avenue and Baitx Drive) would have adequate capacity for the increased traffic associated with the proposed project. The traffic impact analysis determined that all of the study intersections would continue to operate very satisfactorily with Level of Service (LOS) A operations during both the AM and PM peak commute hours. All of the study intersections would remain well within the level of service standards established by the Contra Costa Transportation Authority (CCTA).

The conditions of approval require that a homeowners association or private maintenance assessment district shall be formed to guarantee maintenance of the private street, storm drain system and all other commonly shared facilities within the development. The conditions of approval also require the applicant to implement the mitigation measure on page 3-18 of the Mitigated Negative Declaration and the recommendations of the Town Engineer.

10. Fire Risk

The site and portions of surrounding areas include undeveloped grasslands. The location of the proposed residential units adjacent to undeveloped grasslands could increase the chance of fires spreading to multiple houses. Residents could be exposed to fires due to the open space located to the north, east and southeast. The Orinda/Moraga Fire District will require that homeowners maintain a green space around their homes to provide a buffer from the dry, grassy vegetation. A 20-foot wide Emergency Vehicle Access (EVA) easement would provide access between the subdivision and the adjacent designated remainder parcel.

11. Noise

The noise impacts of the project can be divided into short-term and long-term impacts. Short-term impacts would be due to noise generated by equipment during the construction of the project. Long-term impacts would be associated with future traffic-related noise impacts. The conversion of vacant land for residential purposes will increase ambient noise levels in the neighborhood. However, the number of houses does not generate significant amounts of traffic to cause an increase in noise levels. Noise levels must

increase by at least 3 decibels to be noticed. The amount of traffic generated by the project would result in a noise increase of one half of one decibel. Recommended noise limits for construction equipment are included in the conditions of approval. The project will be required to comply with requirements and standards in the Town's Noise Ordinance.

12. Glare

Since the site is currently undeveloped grassland, existing sources of light are primarily from the surrounding residential developments. Nighttime light would be generated from the new homes and from streetlights. Headlights from vehicles onsite will also add to nighttime lighting. The project is not expected to generate light sources greater than existing residential uses in the area.

The Mitigated Negative Declaration states that, without mitigation, surrounding residences would be affected by increased illumination from the project. A proposed mitigation measure would require the developer to plant a tree screen along the rear of the lots (Lots 1-5) which back up to the existing houses on Larch Avenue, Baitx Drive and Louise Court. In addition, the developer proposes to preserve a row of mature Monterey pine trees that extend along the southern property boundary, downslope from Lots 2, 3 and 4. The proposed conditions of approval would require the developer to record deed restrictions on these lots to restrict future property owners from removing the Monterey pines.

13. Wildlife

The site supports species common to non-native grasslands, such as pocket gopher, meadowlark, sparrows, and finches, and may occasionally be used by raptors for foraging. Existing development to the south and northwest prevents opportunities for movement across the site by larger wildlife species, including black tailed deer, coyote, and other predatory mammals. The seasonal nature of the drainage and lack of cover along this feature limits its value to wildlife. Matures native trees, dense scrub, and well-developed riparian habitat, which typically provide important cover for wildlife are absent from the 7.4-acre site.

The Mitigated Negative Declaration contains a report dated October 3, 2000 by LSA Associates, Inc. with the results of biological surveys. Mitigation Measure 4.1-4 recommends signs requiring that dogs be leashed at all times on the designated remainder parcel to prevent harassment of wildlife. However, under the existing Municipal Code provisions, the only locations in the Town where dogs are currently required to be on leashes are at the Hacienda, Moraga Commons and Rancho Laguna. To implement the mitigation measure, the proposed conditions of approval require the applicant to apply for an amendment to the Town Code mandating that dogs be leashed at all times on the designated remainder parcel. If the Code amendment is approved, the applicant would be required to install sign(s) at the access point to the proposed public trails at the end of the street. The sign(s) would indicate that dogs must be leashed at all times on the designated remainder parcel. The conditions of approval also require the applicant to implement Mitigation Measures 4.1-1b, 4.1-1.c and 4.1-3 in the Mitigated Negative Declaration.

14. Dust

During construction, dust would be generated as a result of land clearing, ground excavation, cut and fill operations and other construction activities. Dust emissions are expected to vary from day to day, depending on the level of activity, the construction activities and weather conditions. The effects of fugitive dust would be increased dustfall and locally elevated levels of suspended particulates. The closest sensitive receptors for air pollutants are the residences directly adjacent to the project site. Construction dust impacts are considered potentially significant, but can be mitigated through appropriate dust control practices. The conditions of approval also require the applicant to implement the mitigation measures on page 2-6 of the Mitigated Negative Declaration and to comply with the Town's standard construction conditions.

15. Impact on Existing Vegetation

The predominant vegetation on the proposed 7.4-acre development site is non-native annual grassland. Several species of trees grow on or adjacent to the site. Two native willow trees occur on the hillside above the proposed building envelope on Lot 9. Numerous sapling native live oak and valley oak grow along the property line in the southwest corner of the site (Lot 1). A row of mature Monterey pine extends along the southern property boundary, downslope from Lots 2, 3, and 4. The remaining 58.1 acres of the property supports non-native grassland, stands of native grassland, coastal scrub, woodland, freshwater seeps, and riparian vegetation. The native grasslands, scrub, woodland, seeps, and riparian habitat types are all sensitive resources, providing important resources for wildlife such as surface water, protective cover, and nesting or denning areas. The conditions of approval require the applicant to implement Mitigation Measure 4.1-5 in the Mitigated Negative Declaration.

- B. *"The site plan shall provide an appropriate living space on the site consistent with the site's constraints in relation to the review and approval criteria set forth in this section."* The Planning Commission finds that the project is in substantial compliance with Section 8-5905 B as follows:

Review of detailed design plans will occur on a lot-by-lot basis by the Design Review Board. Any two-story homes on Lots #1-10 will be subject to review and approval by the Design Review Board consistent with the Town's Design Guidelines that prohibit more than two 2-story homes on adjacent lots.

- 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."* The Planning Commission finds that the project is in substantial compliance with Section 8-5905C as follows:

The project area is hillside topography with slopes ranging from approximately 5:1 to 2:1. The site is bisected northwest to southeast-trending ridge. The southeast half of the property gradually rises to meet the ridge, and then falls off steeply to the northeast. A relatively flat valley begins at the base of the slope and makes up the northeastern half of the property. The proposed development is located on the flatter portions of the site, with the steeper portions of the proposed residential lots located in a proposed scenic easement.

The conditions of approval require that the lots adjacent to a steep downslope (i.e., Lots 1-5) be designed so that the principal and accessory structures blend with the topography.

The Design Review Board would make this determination for Lots #1 – 5 at the design review level.

In addition, the conditions of approval require the preservation of a row of mature Monterey pine trees and the planting of new screen trees to minimize the visual impacts of the project as viewed from adjacent residences on Larch Avenue, Baitx Drive and Louise Court).

- D. *“Residential development that is adjacent to a steep downslope shall be designed so that the principal and accessory structures blend with the topography.”* The Planning Commission finds that the project is in substantial compliance with Section 8.136.070D as follows:

The project area is hillside topography with slopes ranging from approximately 5:1 to 2:1. The site is bisected northwest to southeast-trending ridge. The southeast half of the property gradually rises to meet the ridge, and then falls off steeply to the northeast. A relatively flat valley begins at the base of the slope and makes up the northeastern half of the property. The proposed development is located on the flatter portions of the site, with the steeper portions located in a proposed scenic easement and the 58.1 acre remainder parcel.

The southwest corner of the site will be developed. Eight houses on Larch Avenue, two houses on Baitx Drive and one house on Louise Court back up to the project site. Residents will view the rear sides of the houses rather than the existing grassy hillside. A scenic easement will be placed on the upper portion of the subdivision to protect the hillside and to reduce the amount of grading.

Residents of Sanders Ranch overlook the project site and have westerly views of these same hills and ridgeline. The new houses will not impede the scenic westerly views for either the Larch Avenue or Sanders Drive residents.

The site can be seen from some of the residences of the Moraga Country Club. However, the distance between these houses and the proposed project minimizes the visibility of the project and the appearance will be of the new houses blending in with the existing development.

- E. According to Section 8.136.080 of the Moraga Municipal Code, the Planning Commission 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 the Zoning Ordinance.

The Planning Commission has considered the prominence and location of the site as well as hazards to its development and the concerns of affected neighbors in determining the conditions of approval.

- F. According to Section 8.136.090 of the Moraga Municipal Code, 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.

The proposed conditions of approval require easements for pedestrian dirt hiking trails on the 58.1 acre designated remainder parcel to be formally offered for future public ownership, maintenance and use. The offer for dedication and its acceptance is contingent on the Town approving a use permit for the proposed public trail system and identifying a public entity that is prepared to accept the easement and maintenance of the trails. In the event that the trails are not accepted by a public entity, the property owner would be required to maintain the trails under the provisions of an agreement between the property owner and the Town.

The proposed conditions also require scenic easements along the rear of Lots #6 - 10 as shown on the Vesting Tentative Map. No grading, structures or obscure fences would be allowed within the scenic easements. The proposed conditions of approval require the applicant to execute an instrument satisfactory to the Town Attorney granting the scenic easements to the Town of Moraga in perpetuity.

B. VESTING TENTATIVE SUBDIVISION MAP FINDINGS

A. A tentative subdivision map may be approved only after a determination that the proposed subdivision complies with the findings required by the State Subdivision Map Act, Section 66474, which are listed below.

1. *"That the proposed map is consistent with the Town General Plan, Zoning Ordinance and relevant policies."*

The project will offer semi-custom homes on relatively large lots to be constructed, landscaped and maintained consistent with Design Review Board requirements and the Town's Single Family Residential Guidelines. The project implements the goals and polices of the Moraga General Plan as they relate to the site and is consistent with the zoning ordinance by providing housing at a density consistent with the General Plan. A staff report examining the project for consistency with the General Plan, Zoning Ordinance and relevant policies was presented to the Planning Commission on November 5, 2001.

2. *"That the design or improvement of the proposed subdivision is consistent with the Town General Plan, relevant polices and Design Guidelines."*

The project will offer semi-custom homes on relatively large lots to be constructed, landscaped and maintained consistent with Design Review Board requirements and the Town's Single Family Residential Guidelines.

The project is in conformance with the goals and polices of the General Plan, relevant polices and Design Guidelines. A staff report examining project consistency with General Plan goals and policies was presented to the Planning Commission on November 5, 2001.

3. *"That the site is physically suitable for the proposed type of development."*

The development is compatible with existing adjacent residential development to the south, west and north of the site. The new houses will not impede the scenic views for adjacent residents. A scenic easement will be placed on the upper portion of the development site to protect the hillside and to reduce the amount of grading. Within the development area, slides would be removed/stabilized. Slides in open space that do not pose an injury or loss of life hazard would not be graded. The risk of fault rupture is considered minimal as ground-shaking damage is mitigated by compliance with the seismic design standards of the Uniform Building Code. The potential for liquefaction and

lurch cracking are rated low and very low, respectively. With effective implementation of the recommended grading solutions, the risk of seismically induced landsliding should be low.

4. *"That the site is physically suitable for the proposed density of development."*

The proposed development is limited to 7.4 acres of the 65.5-acre site. The proposed residential density (1.35 units per acre) is consistent with the General Plan and adjacent development. The proposed development is located on the flatter portions of the site, with the steeper portions of the proposed residential lots located in a proposed scenic easement. Within the development area, slides would be removed/stabilized. Slides in open space that do not pose an injury or loss of life hazard would not be graded. The risk of fault rupture is considered minimal as ground-shaking damage is mitigated by compliance with the seismic design standards of the Uniform Building Code. The potential for liquefaction and lurch cracking are rated low and very low, respectively. With effective implementation of the recommended grading solutions, the risk of seismically induced landsliding should be low. The street improvement plans include an underground detention pipe along the north side of the new street. The purpose of the detention pipe is to reduce storm water runoff exiting the site to not exceed pre-development flows.

5. *"That the design of the subdivision and proposed improvements are not likely to cause substantial environmental damage or substantially injure fish or wildlife or their habitats."*

The proposed development is limited to 7.4 acres of the 65.5-acre site.

The site supports species common to non-native grasslands, such as pocket gopher, meadowlark, sparrows, and finches, and may occasionally be used by raptors for foraging. Existing development to the south and northwest prevents opportunities for movement across the site by larger wildlife species, including black tailed deer, coyote, and other predatory mammals. The seasonal nature of the drainage and lack of cover along this feature limits its value to wildlife. Mature native trees, dense scrub, and well-developed riparian habitat, which typically provide important cover for wildlife, are absent from the 7.4-acre site.

The Mitigated Negative Declaration contains a report dated October 3, 2000 by LSA Associates, Inc. with the results of biological surveys of the site. The report indicates that the proposed project could result in potential impacts to Alameda whipsnake and nesting raptors. The development parcel contains a small portion of coastal scrub that could be used by Alameda whipsnake if they are present on the site. The project could disrupt a nesting attempt by a raptor if project construction occurs during the nesting period.

Mitigation Measure 4.1-4 recommends signs requiring that dogs be leashed at all times on the designated remainder parcel to prevent harassment of wildlife. However, under the existing Municipal Code provisions, the only locations in the Town where dogs are currently required to be on leashes are at the Hacienda, Moraga Commons and Rancho Laguna. To implement the mitigation measure, the proposed conditions of approval require the applicant to apply for an amendment to the Town Code mandating that dogs be leashed at all times on the designated remainder parcel. If the Code amendment is approved, the applicant would be required to install signs at the access point to the proposed public trails off of the proposed private street. The signs would mandate that dogs must be leashed at all times on the designated remainder parcel.

6. *"That the design of the subdivision and type of improvements are not likely to cause serious public health problems."*

There are multiple known landslides on the property with proposed remedies for each one. Within the development area, slides would be removed/stabilized. Slides in open space that do not pose an injury or loss of life hazard would not be graded. The risk of fault rupture is considered minimal as ground-shaking damage is mitigated by compliance with the seismic design standards of the Uniform Building Code. The potential for liquefaction and lurch cracking are rated low and very low, respectively. With effective implementation of the recommended grading solutions, the risk of seismically induced landsliding should be low. The applicant's geotechnical engineer recommends subdrains in all keyways and in swales, as well as in the upslope side of excavations required to construct the recommended buttress/catchment areas. The street improvement plans include an underground detention pipe along the north side of the new street. The purpose of the detention pipe is to reduce storm water runoff exiting the site to not exceed pre-development flows. The conditions of approval require the applicant to implement the mitigation measures on pages 4-18 to 4-22 of the Mitigated Negative Declaration and to comply with requirements of the Town Engineer.

7. *"That the design of the subdivision and type of improvements will not conflict with easements acquired by the public at large for access through or the use of property within the proposed subdivision."*

Project approval provides a cost-effective opportunity for site access and trail construction. Access to the public will be provided to the site via public easements. As a condition of approval, easements on the site consistent with the proposed locations for pedestrian dirt hiking trails must be formally offered for future public ownership, maintenance and use.

B. According to Section 8.12.140 of the Municipal Code, the Planning Commission may not approve a tentative subdivision map unless it finds with reference to the proposed subdivision that each of the following conditions set forth in Section 8.12.120 exist:

1. *"The proposed use is appropriate to the specific location."*

The site is currently undeveloped and was formerly used for grazing activities. The property is surrounded by single-family residential development to the south, west and north and grazing land to the east. Adjacent houses fronting on Larch Avenue have views of Gudde Ridge to the west and the Oakland hills. Their views are of the hillside directly behind the houses where new construction will occur. Residents of Sanders Ranch overlook the project site and have westerly views of the same hills and ridgeline. The new houses are not expected to impede the scenic westerly views for either the Larch Avenue or Sanders Drive residents. A scenic easement will be placed on the upper portion of the subdivision to protect the hillside, reduce the amount of grading and protect views. Trail access will be provided from the end of the new street and will connect to the regional "Moraga Ranch" trail. At the October 1, 2001 Planning Commission meeting, the applicant/property owner represented that certain property would be transferred to adjacent property owners in conjunction with this project. Given this representation, the Town of Moraga shall require, prior to the sale of any lot, or the issuance of the first building permit, that the applicant/property owner shall transfer ownership of portions of the subject property to adjacent property owners at 30 Baitx Drive, 4 Kettelsen Drive and 8 Kettelsen Drive. The intent is to provide additional buffers between the site and the adjacent properties.

2. *"The proposed use is not detrimental to the health, safety, and general welfare of the Town."*

There are multiple landslides on the property with proposed remedies for each one. Within the development area, slides would be removed/stabilized. Slides in open space that do not pose an injury or loss of life hazard would not be graded. The risk of fault rupture is considered minimal as ground-shaking damage is mitigated by compliance with the seismic design standards of the Uniform Building Code. The potential for liquefaction and lurch cracking are rated low and very low, respectively. With effective implementation of the recommended grading solutions, the risk of seismically induced landsliding should be low. The applicant's geotechnical engineer recommends subdrains in all keyways and in swales, as well as in the upslope side of excavations required to construct the recommended buttress/catchment areas. The street improvement plans include an underground detention pipe along the north side of the new street. The purpose of the detention pipe is to reduce storm water runoff exiting the site to not exceed pre-development flows.

3. *"The proposed use will not adversely affect the orderly development of property within the Town."*

The project is considered infill development and the site has been designated in the Town's General Plan for development of single-family residences. A staff report examining project consistency with General Plan goals and policies was prepared and presented to the Planning Commission on October 1, 2001. The new houses will not impede the scenic westerly views for either the Larch Avenue or Sanders Drive residents. A scenic easement will be placed on the upper portion of the subdivision to minimize visual impacts, protect the hillside and reduce grading. The conditions of approval require the applicant to provide a tree screen at the rear yards of the houses that back up to the houses on Larch Avenue, Baitx Drive and Louise Court and to record deed restrictions to protect a row of Monterey pine trees on the site. At the October 1, 2001 Planning Commission meeting, the applicant/property owner represented that certain property would be transferred to adjacent property owners in conjunction with this project. Given this representation, the Town of Moraga shall require, prior to the sale of any lot, or the issuance of the first building permit, that the applicant/property owner shall transfer ownership of portions of the subject property to adjacent property owners at 30 Baitx Drive, 4 Kettelsen Drive and 8 Kettelsen Drive. The intent is to provide additional buffers between the site and the adjacent properties.

4. *"The proposed use will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the Town."*

The project will offer semi-custom homes on relatively large lots to be constructed, landscaped and maintained consistent with Design Review Board requirements. The new houses will not impede the scenic westerly views for either the Larch Avenue or Sanders Drive residents. A scenic easement will be placed on the upper portion of the subdivision to minimize visual impacts, protect the hillside and reduce grading. At the October 1, 2001 Planning Commission meeting, the applicant/property owner represented that certain property would be transferred to adjacent property owners in conjunction with this project. Given this representation, the Town of Moraga shall require, prior to the sale of any lot, or the issuance of the first building permit, that the applicant/property owner shall transfer

ownership of portions of the subject property to adjacent property owners at 30 Baitx Drive, 4 Kettelsen Drive and 8 Kettelsen Drive. The intent is to provide additional buffers between the site and the adjacent properties.

5. *"The proposed use is consistent with the objectives; policies, general land uses and programs specified in the general plan and applicable specific plan."*

The project is found to be not inconsistent with the goals and policies of the General Plan, relevant policies and the Town's Design Guidelines (a staff report examining project consistency with General Plan goals and policies was prepared and presented to the Planning Commission on November 5, 2001). The project will offer semi-custom homes on relatively large lots that will be constructed, landscaped and maintained consistent with Design Review Board requirements.

6. *"The proposed use will not create a nuisance or enforcement problem within the neighborhood."*

The project is considered infill development and the site has been designated in the Town's General Plan for development of single-family residences. The project will offer semi-custom homes on relatively large lots to be constructed, landscaped and maintained consistent with Design Review Board requirements.

7. *"The proposed use will not encourage marginal development within the neighborhood."*

The proposed development is limited to 7.4 acres of the 65.5-acre site. The project will offer semi-custom homes on relatively large lots to be constructed, landscaped and maintained consistent with Design Review Board requirements. The proposed single-family lots range in size from 10,000 square feet to 97,770 square feet, with an average lot size of 29,113 square feet. Lots #6 to 10 are larger, accommodating upslope houses.

8. *"The proposed use will not create a demand for public services within the Town beyond that of the ability of the Town to meet in the light of taxation and spending restraints imposed by law."*

The project is considered infill development and the site has been designated in the Town's General Plan for development of single-family residences. Since the new street and other improvements will be privately owned and maintained, the project is not expected to impact Town maintenance staff or services. The site is located within the service boundaries of the Central Costa Sanitary District. The District has indicated their ability and willingness to provide service to the site. Water service will be provided by the East Bay Municipal Utility District. Sufficient water supplies exist to provide service to the subdivision. The existing Central Contra Costa Solid Waster Authority landfill has capacity to accommodate solid waste generated by this project.

9. *"The proposed use is consistent with the Town's approved funding priorities."*

Property tax revenues from the property will increase following completion of the project. Staff estimates that the Town will realize approximately \$7,000 in property taxes the first year of full occupancy (based on a per property sale price of one million dollars and the 7% local share of the 1% property tax assessed by the County). Town costs for maintenance have not been estimated, but should be minimal since the new street will be

privately owned and maintained. Project approval provides a cost-effective opportunity for site access and trail construction. The applicant will be required to pay park fees in lieu of providing onsite facilities. School fees and a traffic mitigation fee will also be required.

PART II – CONDITIONS OF APPROVAL:

Section I - GENERAL

- 1) Existing traffic striping and pavement messages that become illegible or obliterated due to the movement of vehicles on their route to and from the construction site shall be repainted prior to final acceptance of the subdivision improvements. Restriping and/or replacement of messages on Larch Avenue and other impacted streets may be required during the construction period, if in the opinion of the Town, the illegibility of the worn-down, faded or obliterated striping or messages are determined to be a hazard.
- 2) Prior to approval of any final map, grading plan or improvement plan, the applicant shall submit verification that services will be provided from PG&E, Pac Bell and CATV and that financial guarantees are in place. In addition, the applicant shall cause Central Contra Costa Sanitary District to submit a written verification that sanitary sewer systems both existing and proposed will be satisfactory to handle the additional discharge created by this development.
- 3) Prior to recording any final map or obtaining a grading permit, the applicant shall submit improvement plans to the Town Engineer for review and approval. Improvement plans shall be prepared in accordance with the provisions of the County design standards as modified by the Moraga Town Engineer. Improvement plans shall also include:
 - a. Signing and striping that includes details for stop bar, stop legend, 50' double yellow centerline, stop sign and street name sign shall be placed on the new street at the intersection with Kettelsen Drive. Refer to Contra Costa County Standard Plan CC 3051.
 - b. Details and locations for proposed mailboxes. Refer to Contra Costa County Standard Plan CC 3053.
 - c. Street light system per Town standards. The applicant shall annex the street lighting system into the Town Lighting District.
 - d. Improvement plans must be reviewed and approved by the Moraga-Orinda Fire District prior to approval by the Town Engineer.
 - e. Define and detail how rear and side yard drainage from Lots 6, 7, 8, 9 and 10 will be conveyed to the underground storm drainage system.
 - f. Improvements to be made in the private storm drain easement area and inlet to the 27-inch storm drain line must be shown.
 - g. Prior to approval of any final map or improvement plan, the applicant shall submit a grading plan to the Town Engineer and Town Geotechnical Engineer for review and approval. The grading plan shall, at a minimum, include the following:
 - i. Locations and extent of all geologic hazards, including potentially hazardous soil conditions within or adjoining the project site must be shown. All landslide areas shall be labeled. Management and treatment shall be noted.
 - ii. Provide typical cross sections for slide repair and sub drainage.

- iii. Proposed subdrains, bench drains, and v-ditches must be shown.
 - iv. Provide typical sections as needed to illustrate proposed bench drains, v-ditches and sub drains.
- 4) The approval of the Vesting Tentative Map (Subdivision 8444) shall expire 24 months after its full, conditional approval. An extension not to exceed 12 months may be granted by the Planning Commission if the subdivider has made a proper application to the Planning Department prior to the original expiration date.
- 5) A subdivision agreement shall be executed by the subdivider guaranteeing the completion of construction of and payment for improvements within a specified time consistent with the time limits allowed by local ordinance. The agreement shall guarantee that all street and storm drain improvements and equipment necessary for the use of the subdivision or the proper drainage of it including, but not limited to, street and storm drain improvements. The agreement shall provide for a performance bond guaranteeing all construction costs associated with the development including, but not limited to, grading and installation of all surface and subsurface improvements (e.g., perimeter fencing, sewers, utilities, storm drains, sidewalks, curbs, gutters, paving, street lighting, etc.). Perimeter fencing including but not limited to a solid fence along the Larch and Baitx property lines and open wire on the upper portions of the newly created lots shall be constructed as approved by the Design Review Board. These improvements shall be completed within one (1) year of commencement of work.
- 6) Prior to the recordation of the final map, the applicant shall provide the Planning Director with copies of recorded deed restrictions on Lots 2, 3 and 4 to restrict future property owners from removing the existing Monterey pine trees located along the southern boundary of the site. The deed restrictions shall include the following provisions:
- a. No existing Monterey pine tree located along the southern boundary of the site shall be removed without prior written approval by the Planning Director.
 - b. Tree removal approval may be granted only if the Planning Director finds that an emergency situation exists or that property is threatened due to the condition of the tree(s).
 - c. If any existing Monterey pine trees on-site are removed, appropriate replacement trees shall be installed to the satisfaction of the Planning Director. Should the owner of the existing Monterey pine tree along the property line of the adjacent parcel at 1099 Larch Avenue wish to have the tree removed, upon the property owner obtaining the appropriate Town approvals, the applicant shall remove the tree at the applicant's expense. Should the owner of the three existing Monterey pine trees on the adjacent parcel at 5 Louise Court wish to have the trees removed, upon the property owner obtaining the appropriate Town approvals, the applicant shall remove the trees at the applicant's expense. Said requests, if any, shall be made and approvals given prior to the approval of the final subdivision map.
- 7) Prior to the issuance of a building permit for the project, the applicant shall plant a tree screen at the rear of Lots #1-5. The screen trees shall be a mix of native species at least 15-gallon in size. The screen trees shall be maintained in perpetuity by the future property owners of the respective lots. If an adjacent neighbor would prefer to have the tree screen planted on their property, it shall be planted at the developer's expense. The screen trees shall be shown on the landscape plans that are submitted

for review and approval by the Design Review Board. The plan shall include performance standards to assure that the required plants grow as indicated in the approved landscape plan. Town approval is required prior to the removal of any required screen tree in the future. Tree removal approval may be granted only if the Planning Director finds that an emergency situation exists or that property is threatened due to the condition of the tree(s). If any screen trees are removed, appropriate replacement trees shall be installed to the satisfaction of the Planning Director. Furthermore, within 30 days of final approval of the tentative map, the applicant shall contact the owner of 1087 Larch to arrange for the immediate planting of seven 15-gallon Pacific Wax Myrtle trees. The applicant shall also contact the owner of 1101 Larch to arrange to immediately plant one 15-gallon Crepe Myrtle tree. The planting at 1101 Larch shall be in addition to what may be required as part of the landscape plan the will be submitted to the Design Review Board. MITIGATION MEASURE 3-1

- 8) Any two-story homes on Lots #1-10 shall be subject to review and approval by the Design Review Board consistent with the Town's Design Guidelines that prohibit more than two 2-story homes on adjacent lots.
- 9) At the October 1, 2001 Planning Commission meeting, the applicant/property owner represented that certain property would be transferred to adjacent property owners in conjunction with this project. Given this representation, the Town of Moraga shall require, prior to the sale of any lot, or the issuance of the first building permit, that the applicant/property owner shall transfer ownership of portions of the subject property to adjacent property owners, as follows:
 - a. 30 Baitx Drive – The applicant shall transfer ownership of approximately 3,025 square feet of land to the property owner(s) at 30 Baitx Drive (see Parcel A on the "*Preliminary Grading and Drainage Plan*" revised October 15, 2001 on file in the Planning Department).
 - b. 4 Kettelsen Drive – The applicant shall transfer ownership of approximately 4,960 square feet of land to the property owner(s) at 4 Kettelsen Drive (see Parcel B on the "*Preliminary Grading and Drainage Plan*" revised October 15, 2001 on file in the Planning Department).
 - c. 8 Kettelsen Drive – The applicant shall transfer ownership of approximately 2,125 square feet of land to the property owner(s) at 8 Kettelsen Drive (see Parcel C on the "*Preliminary Grading and Drainage Plan*" revised October 15, 2001 on file in the Planning Department).
- 10) The front yard setbacks on the single-family residential lots (Lots 1-10) shall be measured from the perimeter of the access easement for the private street (Baitx Drive extension) rather than from the front property lines (which are located at the center of the private street).
- 11) The homes on the lots that are adjacent to a steep downslope (Lots #1-5) shall be designed so that the principal and accessory structures blend with the topography pursuant to the provisions of Municipal Code Section 8.136.070.C. Compliance with this condition shall be determined by the Design Review Board prior to issuance of building permits on Lots 1 – 5. In determining compliance with this condition, the visual impacts of the proposed homes upon existing residences adjacent to the site,

including but not limited to existing houses on Larch Avenue, Baitx Drive and Louise Court, shall be reviewed and considered by the Design Review Board.

- 12) Pursuant to provisions of Section 66474.9 of the State Subdivision Map Act, the subdivider shall defend, indemnify and hold harmless the Town of Moraga ("Town") and its agents, officers and employees from any claim, action or proceeding against the Town as a result of the action or inaction of the Town in reviewing and approving the Vesting Tentative Subdivision Map (Subdivision 8444). The Town shall promptly notify the subdivider of any such claim, action or proceeding and the Town shall cooperate fully in the defense. If the Town fails to promptly notify the subdivider of any such claim, action or proceeding, or if the Town fails to cooperate fully in the defense, the subdivider shall not thereafter be responsible to defend, indemnify or hold harmless the Town.
- 13) The applicant shall request the Town of Moraga to change the zoning on the 7.4-acre development portion of the property from Open Space-MOSO (OS-MOSO) to Single-Family Residential, Three Dwelling Units Per Acre. The cost of processing the zone change request shall be borne by the applicant. The final map shall not be approved unless and until the zoning on the 7.4-acre development portion of the property is changed from Open Space-MOSO (OS-MOSO) to Single-Family Residential, Three Dwelling Units Per Acre.
- 14) Perimeter landscaping, including but not limited to a tree screen at the rear of Lots 1-5 as set forth in Condition #1.7 (above), shall be installed as required by the Design Review Board. The required perimeter landscaping shall be installed by the applicant no later than completion of the public improvements as set forth in the subdivision agreement (see Condition # 1.5 above).

Section II - ENGINEERING

- 1) A stop sign shall be installed, at the applicant's expense, on the new street at the intersection with Kettelsen Drive. The location of the stop sign shall be subject to review and approval by the Town Engineer. MITIGATION MEASURE 3-3.
- 2) The locations of the three-inch diameter nonferrous drain pipes installed through the curb and under the sidewalks on each lot shall be determined on the basis of grading and road improvement plans, subject to review and approval by the Town Engineer.
- 3) All of the road and street improvements shall be inspected during construction and certified as meeting Town construction standards by the Town Engineer.
- 4) Prior to approval of any final map, grading plan or improvement plan, the applicant shall provide a storm drainage study, supplemented with engineering calculations, that addresses storm water flows onto and off of the project site, and on-site flows. The following items shall be included in the study:
 - a. Hydrology for 10-year and 100-year storms,
 - b. Preliminary hydraulics for surface corridors, v-ditches, bench drains, sub drains, and pipes on-site facilities,
 - c. Off-site drainage impacting the project site, on-site drainage, and any flow from the project site onto adjacent private property,

- d. Analysis and discussion of proposed detention facility, including a detailed hydrological analysis that verifies that the site's post development runoff and the proposed drainage system discharges at or less than pre-development levels,
 - e. Analysis and discussion of all overland release corridors,
 - f. Pre-development versus post-development flows must be discussed,
 - g. Discuss ownership and long range maintenance responsibilities for all drainage facilities; existing and proposed, on-site and off-site, and
 - h. Discuss all existing and proposed public and private drainage easements, and
 - i. Analyze and discuss the downstream system. The land presently drains to two separate drainage basins and the proposed improvements appear to change the percentage of flow to each basin.
- 5) Stormwater run-off flows shall not be allowed to drain from lot to lot within the subdivision or to cross the boundaries of the development and freely flow onto developed adjacent property to the extent that these flows exceed historic pre-development levels.
 - 6) All flows from the development shall be at pre-development levels as required by the conditions of the City/County Joint NPDES Permit.
 - 7) Each drainage inlet must be constructed with a 12-inch deep sump. All inlets shall be constructed with grease and sand filters. The Town Engineer shall provide minimum requirements, details and/or direction for the grease and sand filters. The applicant shall construct on-site detention facilities to reduce flows exiting the site to not exceed pre-development flows. The hydrology analysis shall include model runs for a family of storms (e.g., 3-hour, 12-hour) to ensure that design parameters for the basin represent a worst-case scenario. The analysis shall include a basin routing study and calculation of 100-year flows in the downstream channel. Points where 100-year flows shall be calculated include: a) at the Larch Avenue/Baitx Drive culvert inlet structure; and/or b) other points as directed by the Town Engineer. MITIGATION MEASURE 4.3-1a & 4.3-1b.
 - 8) Easements for the proposed pedestrian dirt hiking trails (herein after referred to as "public trail system") on the 58.1 acre designated remainder parcel shall be formally offered for dedication (for future public ownership, maintenance and use) at the time of approval of the final subdivision map. The offer for dedication and its acceptance shall be contingent on the Town of Moraga approving a use permit for the construction of the trails (pursuant to Municipal Code Section 8.52.110). In the event that the use permit is approved by the Town and the trail easements are not accepted by a public entity including the Town, the property owner shall be required to maintain the trails under the provisions of a maintenance agreement between the property owner and the Town. The maintenance agreement shall be subject to review by the Town Attorney and approval by the Town Council unless the conditional use permit is not approved. The applicant/property owner shall construct the public trail system at its own expense as set forth in conditions I.5, VII.1, VII.2, VII.3 and VII.4.
 - 9) The final map shall include an access easement for restricted public use of the proposed private street (Baitx Drive extension). The public access shall be restricted from use other than maintenance and emergency vehicles and pedestrian access to the proposed public trail system on the 58.1-acre designated remainder parcel.

- 10) Prior to approval of the final map, the applicant shall file a use permit application (pursuant to Municipal Code Section 8.52.110) for the proposed public trail system on the 58.1-acre designated remainder parcel in substantial conformance with the "Proposed Trail Exhibit" dated October 15, 2001 (on file in the Planning Department).
- 11) The final map shall show scenic easements along the rear of Lots #6-10 in substantial conformance with the "*Preliminary Grading and Drainage Plan*" (revised October 15, 2001). The applicant shall execute an instrument satisfactory to the Town Attorney granting the scenic easements to the Town of Moraga in perpetuity pursuant to Government Code 51070, et seq. Prior to approval of any final map, grading plan or improvement plan, the applicant shall provide plans for enhancements within the scenic easements and an open space management plan for the review and approval of the Town of Moraga. At a minimum, the plans for enhancements within the scenic easements and open space management plan shall prohibit grading activities and the construction of any structures or obscure fences within the scenic easements.
- 12) A homeowners association or private maintenance assessment district shall be formed to guarantee maintenance of the private street, storm drain system and all other commonly shared facilities within the development. The property owners shall enter into a homeowners association maintenance or other entity agreement that guarantees maintenance of streets, drains, open spaces, etc. The homeowner's Articles of Incorporation and CC&R's shall be submitted for review and approval by the Town Attorney.
- 13) The new street (Baitx Drive extension) shall be privately constructed, owned and maintained and shall meet the Town's subdivision standards, unless otherwise approved by the Planning Commission.
- 14) The applicant shall post a bond at the beginning of construction in an amount sufficient to assure completion of the private street, storm drain system and erosion control improvements as planned.
- 15) The applicant shall post a cash deposit with the Town for emergency clean up during construction. The amount of the deposit shall be in an amount satisfactory to the Town and shall be no less than \$5,000.
- 16) Prior to approval of the final map, the applicant shall request the Town Council to adopt a resolution to provide for the enforcement of the provisions of the California Vehicle Code on private streets in the Town of Moraga. If the Code is amended, "Park Parallel" signs shall be installed, at the applicant's expense, along the private street (Baitx Drive extension), at locations to be determined by the Town Engineer.

Section III - GRADING

- 1) Grading shall be restricted away from the top-of-bank to the ephemeral drainage on Lot #5. Silt fencing shall be placed along the edge of the proposed grading and construction equipment shall be prohibited within the drainage channel.
MITIGATION MEASURE 4.1-2

- 2) Prior to the issuance of any grading or building permit, the applicant shall submit an arborist's report (prepared at the applicant's expense) identifying appropriate measures to protect existing trees that are to remain during construction. Tree protection measures shall include, but are not limited, to the following requirements:
 - a. Grading and other construction activities shall be restricted outside the dripline of the sapling oaks and the Monterey pines along the southern and southwestern boundaries of the site.
 - b. The grading plans shall indicate a "Tree Dripline Protection Zone," with instructions that the area shall be avoided during grading and construction. Orange construction fencing shall be installed at the edge of the protection zones prior to the issuance of any permits and shall be maintained at all times until occupancy. To optimize attempts at preservation of individual trees the following guidelines will be considered and implemented where possible:
 - i. No grading, compaction or change in ground elevation within the drip line of any trees shall be performed unless under the direct supervision and approval of the project arborist.
 - ii. No storage or stockpiling of soil or materials within the drip line.
 - iii. No trenching within the drip line.
 - iv. No paving within the drip line.
 - c. Native riparian trees to be removed that are 4-inches or greater in diameter shall be replaced with 15-gallon (minimum) native species at a replacement ratio of 3:1.
 - d. Should the grading result in damage to any tree over 4 inches in diameter onsite or offsite that results in removal, the applicant shall remove the tree and it shall be replaced with 15-gallon (minimum) native species at a replacement ratio of 3:1. MITIGATION MEASURE 4.1-5
- 3) Grading criteria for cut and fill slopes as recommended by Engeo, Inc. shall be required for development of the project site. Any conflicts between the future grading plans and these criteria should be interpreted as evidence that special engineering is required (e.g., retaining walls, geogrid reinforcement). Those standards call for the use of 3:1 fill slopes as a general standard for the project, with the exception that fill slopes less than 8 feet high may have a 2:1 gradient. MITIGATION MEASURE 4.2-1b.
- 4) The grading plan shall be consistent with the recommendations of the Geotechnical Investigation and shall be signed for conformity by the applicant's soils engineer.
- 5) The developer shall balance the cut and fill areas onsite. If the final engineering for the subdivision requires the removal or import of more than 500 cubic yards, a hauling permit shall be required in accordance with PC Resolution 46-82 as amended by the Town Council on January 19, 1983.
- 6) Grading operations shall be scheduled between April 15 and October 1, to avoid the fall and winter rains. Grading may occur during the winter season, provided that appropriate erosion control measures have been installed and certified as operational by the project engineer, Town Engineer and the Contra Costa County Grading Inspector in accord with best construction management practices. Grading operations shall not disturb the erosion control measures and no grading shall be done within the drainage channel between April 15 and October 1. If grading continues beyond October 1, a cash bond or Certificate of Deposit for \$20,000 shall be provided to the Town guaranteeing maintenance of the erosion control

measures and to provide assurance to the Town for payment of any fines imposed by the Regional Water Quality Control Board due to the applicant's failure to control erosion on the site. MITIGATION MEASURE 4.2-2a.

- 7) Prior to the issuance of any permits, a certificate of insurance shall be provided to the Town to verify that both the owner of the subdivision and the grading contractor have public liability insurance. The amount and type of insurance shall be reviewed by the Town and shall be sufficient to cover damages that may result from the grading operation, such as mudflows or flooding onto adjacent properties. The insurance limits shall be a minimum of \$1,000,000 combined single limit coverage and the policy shall be subject to review and approval the Town Attorney.
- 8) All grading and excavation shall be conducted under the direct supervision of the project soil engineer. Soil strength and settlement potential shall be addressed in the comprehensive geotechnical investigation and appropriate mitigation measures described. Improvements near the creek bank shall be designed to address possible creep or sloughing.
- 9) The grading contractor and applicant for the grading permit shall be responsible for preventing spills of soil, rock or other debris on Town streets. If any spills occur, then the grading contractor will be held responsible for the immediate cleanup of the spill and repair of any damage that may have been done to the street. The correction of the problem shall be made to the satisfaction of the Town Engineer.
- 10) The applicant's soils engineer and grading contractor shall take precautions to see that the topsoil is not utilized as engineered fill or placed within five feet of the proposed building footprints unless authorized by the Town's Geotechnical Consultant. Topsoil shall be spread over the lots following grading to assist in the establishment of a vegetative cover.
- 11) The applicant's landscape architect shall require imported suitable material as necessary for lots where the depth of topsoil is not sufficient to provide a suitable environment for landscaping.
- 12) The applicant's soils engineer shall prepare a final report detailing locations and depths of subdrains; the methods of fill emplacement and the results of density testing.
- 13) Following completion of the grading, the project civil engineer shall verify that the pad elevations are in accordance with the approved grading plan.
- 14) All earthwork, grading, and construction operations are subject to on-site monitoring by the Grading Inspector and Town Engineer. The cost of monitoring by the Town Engineer shall be borne by the applicant.

Section IV. - EROSION CONTROL

- 1) Provide an erosion control plan for Town review and approval prior to approval of the grading plan. The following interim control measures shall be employed based on site-specific needs in the project areas:
 - a. Grading to minimize areas of exposed, erodible material, and to avoid over-concentration of rapidly flowing runoff in unprotected, erodible areas.

- b. The erosion control plans shall include water bars, temporary culverts and swales, mulch and jute netting blankets on exposed slopes, hydroseeding, silt fences, and sediment traps/basins.
 - c. Placement of stripped topsoil on graded 3:1 slopes prior to the onset of winter rains.
 - d. Because the biggest problem with effective sediment control is lack of maintenance, the erosion control plan must have a comprehensive program for inspection and maintenance during the winter rainy season, including provisions for documenting maintenance activities.
 - e. Wherever feasible, isolate runoff from ungraded areas, thereby simplifying erosion control and sediment control measures within the graded area.
 - f. In order to reduce the potential impacts of long-term erosion and sedimentation, the project shall incorporate the appropriate design, construction and continued maintenance of one or more of the following long-term control measures:
 - i. The specific measures shall be based on the recommendations of the project geotechnical engineer and hydrologist.
 - ii. Project plans shall incorporate drainage measures to collect and control surface runoff water on sloping lots, including lined ditches and closed downspout collection systems.
 - iii. Runoff shall not be permitted to drain over engineered slopes.
- 2) The proposed location of lined drainage ditches shall be specified on the development plan accompanying the design-level geotechnical investigation report, which shall be reviewed by the Town's Geotechnical Consultant.
 - 3) A Storm Water Pollution Prevention Plan (SWPPP) incorporating selected Best Management Practices (BMP's) as outlined in Moraga's Storm Water Management Plan (SWMP) shall be submitted to the Town Engineer for review and approval prior to submitting the SWPPP to the Regional Water Quality Control Board (RWQCB). An erosion control plan will be required as one of the selected BMP's. The applicant shall also obtain a general construction permit from the RWQCB as well as file a Notice of Intention with that agency.
 - 4) The Town of Moraga shall be authorized to draw against the cash bond or Certificate of Deposit for erosion control and to take appropriate action as may be required to protect off-site properties or water quality under the following circumstances:
 - a. The applicant has, in the Town's opinion, failed to install or maintain the erosion control measures in accordance with the approved plan.
 - b. The installation or correction of erosion control measures is not proceeding in accordance with the approved time schedule.
 - c. The Town Engineer finds that an emergency situation exists or is threatened whereby damage to off-site properties or water quality may result due to the discharge of soils, earthen material or debris.
 - 5) The applicant shall submit a letter of credit in favor of the Town to guaranty implementation and maintenance of SWPPP and erosion control plans throughout construction.

- 6) The project shall incorporate the appropriate design, construction and continued maintenance of one or more of the following long-term erosion and sedimentation control measures:
- The specific measures shall be based on the recommendations of the project geotechnical engineer and hydrologist.
 - Project plans shall incorporate drainage measures to collect and control surface runoff water on sloping lots, including lined ditches and closed downspout collection systems.
 - Concentrated runoff shall not be permitted to drain over engineered slopes.
 - The proposed location of lined drainage ditches shall be specified on the development plan accompanying the design-level geotechnical investigation report, which shall be reviewed by the Town's Geotechnical Consultant. MITIGATION MEASURE 4.2-2c.
- 7) The applicant shall install erosion control measures adjacent to the rear property line at 7 Louise Court as set forth in the "*Lipson Erosion Control Plan*" by ECORP Consulting, Inc. dated September 17, 2001 (on file in the Planning Department).

Section V. - CONSTRUCTION

- 1) The severity of construction-related impacts can be reduced to a level that is less-than-significant through the application of mitigation measures. During construction, the applicant shall, at a minimum, perform the following measures to control dust:
- a. Water all active construction areas at least twice daily (and more often if directed by the Town Engineer).
 - b. Cover all trucks hauling soil, sand, and other loose material or require trucks to maintain at least two feet of freeboard.
 - c. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at the construction site.
 - d. Sweep daily all paved access roads, parking areas, staging areas and entrances at the construction site.
 - e. Sweep streets daily if visible soil material is carried onto adjacent public streets, to the satisfaction of the Town Engineer. MITIGATION MEASURE 3-2.
- 2) Prior to the undertaking of any work within the public right-of-way on Larch, Baitx, and/or Kettelsen (i.e. joint utility trench, sidewalk improvements, etc.), an encroachment permit shall be obtained from the Town.
- 3) Construction shall take place on weekdays only between the hours of 8:00 AM and 5:00 PM. No construction shall be permitted on Saturdays, Sundays or holidays, unless it is an emergency and prior Town approval has been obtained.
- 4) Equipment used for project construction shall have hydraulically or electrically powered impact tools (e.g., jack hammers, pavement breakers, and rock drills) whenever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Whenever possible, quieter procedures shall be used such as drilling rather than impact equipment.

- 5) Stationary noise generating equipment, such as air compressors and concrete pumps, shall be located as far away from members of the public as possible. If they must be used near existing receptors, they shall be adequately muffled, and enclosed within temporary sheds.
- 6) All construction equipment operated at the site shall be equipped with manufacturer's standard noise control devices (i.e., mufflers, intake silencers, and/or engine enclosures) and shall be inspected at periodic intervals to ensure proper maintenance and lower noise levels. Newer equipment shall be used whenever possible. Equipment and trucks used for project construction shall utilize the best available noise control techniques to maintain noise levels within the Federal Government established noise control requirements shown in the following table.

RECOMMENDED NOISE LIMITS FOR CONSTRUCTION EQUIPMENT

Equipment Type	Leq at 50 Ft.	Equipment Type	Leq at 50 Ft.
Air Compressor	75 dBA	Loader	75 dBA
Backhoe	75 dBA	Pneumatic Tool	80 dBA
Concrete Mixer	75 dBA	Pump	75 dBA
Crane, Derrick	75 dBA	Rock Drill	80 dBA
Crane, Mobile	75 dBA	Saw	75 dBA
Dozer	75 dBA	Scraper	80 dBA
Generator	75 dBA	Shovel	75 dBA
Grader	75 dBA	Truck	75 dBA
Jack Hammer	75 dBA	N/A	N/A

- 7) The parking of grading equipment, tractor tread vehicles and all other types of construction vehicles and equipment on any existing street is prohibited. These vehicles shall be delivered to the property by trailer and kept on-site during grading and construction operations. The applicant shall establish an on-site or off-site "staging area" for vehicles utilized by construction employees. The size, location and details of the "staging area" are subject to review and approval by the Planning Director.
- 8) Construction equipment shall be maintained and tuned at the interval recommended by the manufacturers to minimize exhaust emissions.
- 9) Equipment idling shall be kept to a minimum when equipment is not in use. No piece of equipment shall idle in one place for more than 5 minutes.
- 10) A plan showing the location of any temporary contractor's storage yard or construction trailer on the property, including security fencing and lighting, shall be submitted to the Design Review Board for approval prior to installation and shall not be viewable from the Camino Pablo scenic corridor. Interim landscaping may be required by the Design Review Board to screen a storage yard.
- 11) The developer shall submit a plan for recycling building and construction materials that are generated from the waste materials from the construction of the new homes. The plan shall be reviewed and approved by the Town prior to the issuance of building permits for the new homes. Prior to the issuance the certificate

of occupancy for the new homes, the developer shall submit documentation to the Planning Department that the materials have been recycled in accordance with the approved plan.

Section VI. - GEOTECHNICAL

- 1) A design-level geotechnical and geologic investigation report shall be submitted to the Town of Moraga and reviewed and approved by the Town's peer review process, prior to recordation of the subdivision map. The report, which shall respond to the peer review letter of CEG, shall provide specific criteria and standards to guide site grading, drainage and foundation design (see page 4-19 in the Mitigated Negative Declaration for additional requirements). The constraints on the use of expansive soil near finish grade shall be evaluated in the design-level geotechnical investigation report. MITIGATION MEASURES 4.2-1a. and 4.2-3a.
- 2) Foundation design shall include drilled pier-and-grade beam foundations, reinforced slabs placed on select fill and/or post-tensioned slabs; and thicker pavement sections designed using criteria provided by the design-level geotechnical investigation. MITIGATION MEASURE 4.2-3b.

Section VII. - ENVIRONMENTAL

- 1) The USFWS and CDFG shall be informally consulted over the potential for occurrence of California red-legged frog, Alameda whipsnake, and San Francisco dusky-footed woodrat on the 58.1-acre designated remainder parcel and the need for possible authorization as part of the proposed trail construction. Concerns of the trustee agencies and possible restrictions on improvements shall be adhered to as part of trail construction. The applicant shall submit written verification from the trustee agencies that the requirements of this condition have been satisfied. MITIGATION MEASURE 4.1-1b.
- 2) Construction of the public trails on the 58.1-acre designated remainder parcel shall be at the applicant's expense and shall be performed in accordance with: 1) the conditions set forth in Section V, Construction, of this Exhibit; and 2) the requirements set forth in Mitigation Measure 4.1-1c of the Mitigated Negative Declaration (i.e., trail construction shall take place during the nonbreeding/nesting season for raptors unless a preconstruction survey is conducted). MITIGATION MEASURE 4.1-1c.
- 3) The final trail alignment on the 58.1-acre designated remainder parcel shall avoid passing by or through the freshwater seeps as well as crossing the creek. If this cannot be achieved, the proposed improvements should be coordinated with representatives of the U.S. Army Corps of Engineers, California Department of Fish and Game (CDFG), and Regional Water Quality Control Board, and required authorization obtained prior to any modification to jurisdictional wetlands and waters. MITIGATION MEASURE 4.1-3.
- 4) Prior to approval of the final map, the applicant shall request the Town Council to amend the Town Code to require that dogs be leashed at all times on the proposed public trail system on the 58.1 acre designated remainder parcel. If the Code amendment is approved and the County Animal Control Officer or other public agency agrees to enforce the leash law, the applicant shall install sign(s) at the

access point to the trail at the end of the private street (Baitx Drive) mandating that dogs be leashed at all times on the public trail system. MITIGATION MEASURE 4.1-4.

PASSED AND ADOPTED by the Town Council of the Town of Moraga on January 9, 2002 by the following vote:

AYES: Mayor Michael Majchrzak, Vice Mayor Lori Landis, Councilmember Dale Walwark, Councilmember Dennis Cunnane and Councilmember William Vaughn

NOES: None

ABSTAIN: None

ABSENT: None


Michael Majchrzak, Mayor

ATTEST:


Carol J. Lau, Town Clerk