



Staff Report to the Planning Commission

Application Number: **141228**

Applicant: Richard Hochler
Owner: Richard S. Hochler Trustees
APN: 067-041-14

Agenda Date: November 18, 2015
Agenda Item #: 7
Time: After 9:00 a.m.

Project Description: Proposal to divide a 37,314 square foot parcel into three lots and construct a new right-of-way that will serve the three lots.

Location: Parcel located west of the intersection of Lockewood Lane and Estrella Drive on the west side of Lockewood Lane (504 Lockewood Lane)

Supervisorial District: Fifth District (District Supervisor: Bruce McPherson)

Permits Required: Minor Land Division, Variance to reduce the required street side yard on Lots 1 and 3 from 20 feet to 10 feet, Roadside/Roadway Exception

Technical Reviews: Soils Report Review, Archaeological Report Review, and Environmental Review

Staff Recommendation:

- Adopt the attached resolution (Exhibit A), certifying the Mitigated Negative Declaration per the requirements of the California Environmental Quality Act.
- Approval of Application 141228, based on the attached findings and conditions.

Exhibits

- | | | | |
|----|---|----|--------------------------|
| A. | Planning Commission Resolution | F. | CEQA Initial Study |
| B. | Mitigated Negative Declaration
(CEQA Determination), Notice of
Determination and Mitigation Monitoring
and Reporting Program | G. | Will Serve Letters |
| C. | Findings | H. | Architectural Guidelines |
| D. | Conditions | I. | Neighborhood Meeting |
| E. | Project plans | J. | Correspondence |

Parcel Information

Parcel Size: 37,314 square feet
Existing Land Use - Parcel: Residential
Existing Land Use - Surrounding: Residential
Project Access: Lockwood Lane
Planning Area: Carbonera
Land Use Designation: R-UL (Urban Low Residential)
Zone District: R-1-10 (Single-family residential with a 10,000 square foot minimum parcel size)
Coastal Zone: Inside Outside
Appealable to Calif. Coastal Comm.: Yes No

Environmental Information

Geologic Hazards: Not mapped/no physical evidence on site
Soils: Soils report submitted and accepted
Fire Hazard: State Response Area Moderate
Slopes: 0-15%
Env. Sen. Habitat: Sandhills
Grading: No grading proposed with this application
Tree Removal: No trees proposed to be removed
Scenic: Not a mapped resource
Drainage: Preliminary drainage plan reviewed and accepted
Archeology: Archeology report submitted and accepted

Services Information

Urban/Rural Services Line: Inside Outside
Water Supply: San Lorenzo Valley Water District
Sewage Disposal: City of Scotts Valley
Fire District: Scotts Valley Fire Protection District
Drainage District: Outside County Flood Control District

History

The subject parcel is developed with a single-family dwelling and related improvements which Assessor's records indicate were constructed in 1951, a date that preceded the County's issuance of building permits. Since then, the County has issued only minor building permits for the property.

Project Setting

The project site is located in an established residential neighborhood on Lockwood Lane within the Urban Services Line. Lockwood Lane is an arterial roadway maintained by the City of Scotts Valley that connects Mt. Herman Road in downtown Scotts Valley to Graham Hill Road. The Scotts Valley city line is located at the parcel's property boundary along Lockwood Lane.

Like the surrounding properties, the subject parcel contains Zayante Sandhills Habitat which has the potential to support endangered species such as the Mount Hermon June Beetle (commonly known as the "June Beetle"), which was listed as endangered by the United States Fish and Wildlife Service in 1997.

The lot slopes gently upward from Lockewood Lane (less than 15% slope). The property supports a number of oak and pine trees, most of which are located at the property's perimeter and have been incorporated into the project site plan.

Zoning & General Plan Consistency

The subject property is a 37,314 square foot lot, located in the R-1-10 (Single-family residential with a 10,000 square foot minimum parcel size) zone district, a designation which allows residential uses. The proposed land division would result in three lots of 11,835 (Lot 1), 12,315 (Lot 2), and 10,861 (Lot 3) net square feet which is consistent with both the zone district minimum and the density range of the site's R-UL (Urban Low Residential) General Plan designation, which calls for one unit per 6,000 to 10,000 square feet. The proposed new right-of-way would occupy about 2,300 square feet.

Sandhills Sensitive Habitat

As noted above, the project site is within the Sandhills sensitive habitat. The property is also within the area covered by the Interim Programmatic Habitat Conservation Plan (IPHCP). The IPHCP is the result of an agreement between the County of Santa Cruz, the City of Scotts Valley and the United States Fish and Wildlife Service that allows development meeting certain criteria to use the Zayante Sandhills Conservation Bank as mitigation for disturbance of the sensitive habitat. The criteria limits new site disturbance to 15,000 square feet per existing lot of record, which means the aggregate of the disturbance associated with the three proposed lots may not exceed 15,000 square feet. The 15,000 square foot limit is in addition to the existing disturbance of 6,685 square feet. The project engineer, Robert DeWitt, has demonstrated that the disturbance resulting from the proposed land division, including building areas, right-of-way, and frontage improvements, would comply with this limitation as shown on the project plans (Exhibit E).

Jodi McGraw provided a restoration plan for about 16,000 square feet of the property which is outside of the development envelope. The purpose of the restoration plan is to control invasive plants, promote the establishment and growth of native Sandhills plants, and improve habitat conditions for the Mount Hermon June beetle. In addition to the restoration plan and purchase of credits from the Conservation Bank, the Environmental Review process identified other mitigations such as the requirement to record a Declaration of Biotic Restriction, controls on outdoor lighting, a pre-construction meeting to educate workers on the Mount Hermon June Beetle, and ongoing monitoring of the project site during construction by a qualified monitor to ensure compliance with mitigations.

Oak Woodland Sensitive Habitat

In addition to the Sandhills sensitive habitat, the subject parcel supports oak woodland, another sensitive habitat identified in County Code 16.32. The developer values the oak trees as an asset to the project and does not propose removing any trees. As a result, the initial study focused on

the ongoing retention and protection of the oak trees. The developer will be required to record a Declaration of Biotic Restriction on each new parcel's title to ensure that future owners of the property are aware that the oak trees are protected.

Variance

This project includes a request for a Variance to reduce the street side yard setback of Lots 1 and 3 to 10 feet from the required 20 feet. The special circumstances affecting the parcel are the fact that the parcel is located along an arterial roadway and the presence of two sensitive habitats on-site—Sandhills and oak woodland-- which constrains the location and area of allowed development.

Lockewood Lane is an arterial roadway. Although the subject parcel has enough frontage length to provide the three lots with their own driveways, standard road engineering practice is to limit the number of driveway cuts onto arterial roadways in order to allow traffic to flow unimpeded. General Plan Policy 3.11.1 (Functional Street Classification and Street Standards in Urban Areas) supports this practice by requiring projects to minimize side traffic interference and limit driveways along arterial roadways whenever possible. The project conforms to this policy by using the existing driveway to provide access to the three new parcels. One consequence of this is that Lots 1 and 2 become corner lots and are then required to provide street side yard setbacks of 20 feet along the new right-of-way. Had the parcel not been located along an arterial roadway, the lots would not have been constrained in this way.

The second special circumstance is the presence of oak woodland sensitive habitat on site. If it were possible to construct three driveway cuts onto Lockewood Lane, the driveway cuts would require the removal of the existing mature oak trees located along the parcel's frontage. The California Environmental Quality Act (CEQA) requires projects to first avoid impacting a sensitive habitat before mitigating for an impact. In this case, utilizing the existing driveway allows the project design to retain the oak trees.

Finally, the Sandhills habitat limits the development area of the new parcels with the IPHCP allowing for only 15,000 square feet of new disturbance. The surrounding parcels were developed prior to this restriction and were not therefore limited in the same way. By allowing the street side yard setback Variance, the new parcels will maximize the usable development area without disturbing any additional Sandhills habitat because a portion of the existing driveway area would be included in the development envelope which otherwise would be in the setback area and not available for development.

Roadway / Roadside Exception

The County's Design Criteria establishes standards for new rights-of-way. The Design Criteria's minimum urban local street section requires 40 feet of width which includes two 12-foot wide travel lanes, street parking, sidewalk, landscape strip and curb. In this case, given that only three lots will be served by the right-of-way, and the project's location within the Sandhills sensitive habitat, staff supports the proposed right-of-way width of 24 feet, which includes two nine-foot wide travel lanes and a curb on each side (see Roadside / Roadway Exception Findings, Exhibit C). The County's Department of Public Works, Road Engineering and the City of Scotts Valley's Public Works staff reviewed the proposed roadway and voiced no objection to it.

Architectural Guidelines / Design Review

The property owner provided Architectural Guidelines to guide the future development of the new parcels (Exhibit I). The Guidelines emphasize techniques for breaking up the mass and bulk of the new homes. For example, homes are required to have a combination of one- and two-story elements and roof planes are required to include dormers and gables. Front porches and wrap-around porches are encouraged and all four elevations of the homes are required to have the same level of architectural detail. Window orientation and design are directed to be sensitive to the privacy of the existing homes surrounding the project.

Neighborhood Meeting

The property owner hosted a neighborhood meeting on Sunday, October 12, 2014. Eighteen neighbors attended the meeting. Their concerns ranged from the dust and noise created during construction to the loss of views from neighboring properties. A summary of the questions discussed at the meeting and a list of attendees is provided as Exhibit J.

Environmental Review

Environmental review was required for the proposed project per the requirements of the California Environmental Quality Act (CEQA). The initial study focused on the potential impacts to biological resources, specifically impacts to Sandhills and oak woodland sensitive habitats. The project was reviewed by the County's Environmental Coordinator on June 22, 2015 at which time a preliminary determination to issue a Negative Declaration with Mitigations (Exhibit A) was made. The mandatory public comment period expired on July 21, 2015. The Environmental Coordinator received one comment from Melissa Farinha of the California Department Fish and Wildlife. Ms. Farinha requested modifications to the mitigation related to controlling outdoor lighting (Mitigation BIO-8), and the mitigation was modified to address her concerns. Together with the other mitigations generated in the Environmental Review process, the potential impacts of the proposed development have been reduced such that no significant environmental impacts are anticipated to result from the proposed land division.

Conclusion

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Adopt the attached resolution (Exhibit A), certifying the Mitigated Negative Declaration per the requirements of the California Environmental Quality Act; and
- **APPROVAL** of Application Number **141228**, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

Report Prepared By: 
Annette Olson
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: (831) 454-3134
E-mail: annette.olson@santacruzcounty.us

Report Reviewed By: 
Steven Guiney, AICP
Principal Planner
Development Review
Santa Cruz County Planning Department

BEFORE THE PLANNING COMMISSION
OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA

RESOLUTION NO. _____

On the motion of Commissioner
duly seconded by Commissioner
the following Resolution is adopted:

PLANNING COMMISSION RESOLUTION
ADOPTING THE MITIGATED NEGATIVE DECLARATION
FOR A THREE-LOT MINOR LAND DIVISION, APPLICATION 141228

WHEREAS, at its regular meeting on October 28, 2015, the Planning Commission convened a duly noticed public hearing to consider the proposed project and proposed adoption of a Mitigated Negative Declaration, and considered public testimony prior to taking action.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED, that the Planning Commission hereby makes the following findings and hereby adopts the attached CEQA Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program (MMRP) related to the proposed project.

1. The Project that was the subject of environmental review includes but is not limited to the following components:

Proposal to divide a parcel into three parcels and construct a new right-of-way.

Requires a Minor Land Division, Roadside/Roadway Exception, Archaeological Report Review, Soils Report Review, and Environmental Review.

2. Environmental review completed for the proposed land division determined that the proposed project, with identified mitigation measures, will not have a significant impact on the environment, and therefore a Mitigated Negative Declaration was prepared in accordance with the California Environmental Quality Act (CEQA), and was, as required by CEQA circulated for public comment and review for 30 days, ending on July 21, 2015. Notice of the circulation was provided through an advertisement in the newspaper, notice on the project site, and by posting the initial study on the County of Santa Cruz website.

3. The Planning Commission, in adopting the Mitigated Negative Declaration and MMRP, is requiring that the following mitigation measures be incorporated into the Project, and the Planning Commission finds that implementation of these mitigation measures will reduce any potentially significant effects of the proposed project to a less than significant level.

EXHIBIT A

Mitigation BIO-1: Conditions III. C. & IV. B. Monitoring Program: Sandhills Impact Avoidance Measures

Prior to ground disturbance, the developer shall purchase credits from the Zayante Sandhills Conservation Bank for each square foot of disturbed area.

Mitigation BIO-2: Conditions II. E. 4. c., IV. C., & IV. E. Monitoring Program: Sandhills Impact Avoidance Measures

On each new parcel of record, the property owner shall record a Declaration of Biotic Restriction acknowledging the sensitive habitat and restoration areas (template included as Attachment 3 of Initial Study). The development envelope shall also be memorialized in the Declaration.

Additional mitigation measures are incorporated into the Declaration of Restriction, such as requirements for implementing the Restoration Plan, restrictions against removal of native Sandhills plant species, the prohibition of ground disturbing activities outside of the development envelope, the requirement to construct a permanent split rail fence at the edge of the development envelope to demarcate the restoration area, and restrictions on the use of permanent outdoor lighting that may attract MHJB.

Mitigation BIO-3: Condition IV. H. 4. Monitoring Program: Sandhills Impact Avoidance Measures

Prior to any ground disturbance, temporary fencing shall be placed at the edge of the development envelope and signage will be installed alerting workers to stay out of the restoration area and noticing that the area is a sensitive habitat.

Mitigation BIO-4: Conditions IV. G. 4., 6. & 7. Monitoring Program: Sandhills Impact Avoidance Measures

Prior to any ground disturbance, a pre-construction meeting shall be held. All workers at the site would participate in a tailgate session to learn about the endangered beetle, its habitat, protective measures, and procedures to follow if any individuals of the Mount Hermon June Beetle (MHJB) are actually observed at the project site during the course of all construction-related activities. The tailgate session shall be conducted by a person knowledgeable about the MHJB and its habitats, and approved by the U.S. Fish & Wildlife Service to monitor MHJB during construction. The approved monitor shall also act as a construction monitor during the erection of the temporary fencing, initial demolition, grading, and excavation activities.

The approved monitor would also periodically visit the project site throughout the construction period to insure that no disturbance occurs to areas outside the development envelope. The monitor shall have the authority to immediately stop any activity that does not comply with the IPHCP, and to order any reasonable measures to avoid the MHJB.

EXHIBIT A

Mitigation BIO-5: Conditions IV.E, V. B. & C. Monitoring Program: Sandhills Restoration and Enhancement

The Restoration Plan by Jodi M. McGraw, PhD, dated December 24, 2014 (Attachment 4 of Initial Study) shall be implemented, including:

Biomass Removal: All invasive plant biomass, including trunks, branches, leaves, fruits and seeds shall be disposed of offsite at a green waste recycling facility or other suitable location. Wood material shall be chipped directly into a container for off-site disposal (rather than piled on the ground). All other material shall be similarly hauled off-site. Invasive control treatments shall be conducted during years 1, 3, and 5 of the five-year restoration plan. This schedule is designed to provide effective control, while reducing costs relative to annual treatment; however, annual treatment can be implemented as resources allow. Follow-up treatments following year 5 will be necessary to prevent re-establishment of invasive plants, and should similarly be conducted as resources allow; however, treatments following the initial five-year period are not a requirement of the restoration plan.

Planting Plan: A planting plan shall be developed based on the conditions at the time and availability of native plants. Suitable species include, but are not limited to, coast live oak, ponderosa pine, silverleaf Manzanita, buck brush (*Ceanothus cuneatus* var. *cuneatus*), mock heather (*Ericameria ericoides*), sticky monkey flower (*Mimulus aurantiacus*), and yarrow (*Achillea millefolium*). To avoid causing genetic erosion, the native Sandhills plants installed at the restoration area shall be from genetic material (seeds or cuttings) derived from the Whispering Pines Sandhills site or the adjacent Sandhills sites mapped in the Sandhills Conservation and Management Plan (McGraw 2004). Native shrubs and trees can be installed on 8 foot to 12 foot centers; perennial herbs, if used, could be planted at higher density. The plantings should complement the existing vegetation, the condition of which will also influence the total number of plants to be planted.

Annual reports: Annual reports of plan implementation will be provided to the County of Santa Cruz Planning Department by January 31 the year following treatment (i.e. years 2, 4, and 6). Each annual report shall include the following:

- a. A description of the restoration treatments implemented during the year and to date;
- b. An assessment of the site conditions including invasive plant and native plant cover effectiveness of the restoration to date; and
- c. Recommended changes to the treatments based on the adaptive management process.

Mitigation BIO-6: Conditions IV. H. 2. & 4. Monitoring Program: Oak Woodland Impact Avoidance:

EXHIBIT A

Prior to construction, the property owner shall submit an arborist report with tree protection recommendations. Those recommendations shall be shown on the project plans. The same arborist shall also provide a plan review letter evaluating whether or not the recommendations are properly reflected on the project plans. Prior to ground disturbance, the recommended tree protection measures shall be installed.

Mitigation BIO-7: Conditions IV. D. & V. D. Monitoring Program: Oak Woodland Impact Avoidance:

As a part of the Declaration of Biotic Restriction, the oak trees will be identified as being protected in perpetuity. Any tree removals necessary for safety reasons shall be removed as a part of a Significant Tree removal permit.

Mitigation BIO-8: Conditions II. E. 4. d. & IV. G. Monitoring Program: MHJB Impact Avoidance:

Permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security).

4. In adopting the Mitigated Negative Declaration, the Planning Commission finds, on the basis of the whole record before it, that there is no substantial evidence that the project, as revised, will have a significant effect on the environment, and that the Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis.

5. The material which constitutes the record of proceedings upon which the Commissions' decision is based shall be located in the offices of the Clerk of the Board, located at 701 Ocean Street, Santa Cruz, California.

PASSED AND ADOPTED by the Planning Commission of the County of Santa Cruz, State of California, this _____ day of _____, 20__ by the following vote:

AYES: COMMISSIONERS
NOES: COMMISSIONERS
ABSENT: COMMISSIONERS
ABSTAIN: COMMISSIONERS

Chairperson of the Planning Commission

ATTEST: _____
Planning Commission Secretary

APPROVED AS TO FORM: _____
Assistant County Counsel

EXHIBIT A



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR
<http://www.sccoplanning.com/>

MITIGATED NEGATIVE DECLARATION

Project: Hochler Minor Land Division

APN(S): 067-041-14

Project Description: The project consists of dividing a 37,314 square foot parcel (0.86 acres) into three parcels of 11,835 net developable square feet (Lot 1; 12,315 net developable square feet (Lot 2); and 10,861 net developable square feet (Lot 3), with a right-of-way of 2,303 square feet. The proposal does not include Architectural Plans as no building is contemplated as part of this Minor Land Division. Design Guidelines have been submitted with the application to guide future building of two single-family dwellings on each of the two newly-created parcels.

Project Location: The proposed project is located on the north side of Lockwood Lane within the Carbonera planning area in the unincorporated County of Santa Cruz.

Owner: Richard Hochler

Applicant: Richard Hochler

Staff Planner: Annette Olson

Email: annette.olson@santacruzcounty.us

This project will be considered at a public hearing by the Planning Commission. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

California Environmental Quality Act Mitigated Negative Declaration Findings:

Find, that this Mitigated Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Mitigated Negative Declaration and the comments received during the public review period; and, that revisions in the project plans or proposals made by or agreed to by the project applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and, on the basis of the whole record before the decision-making body (including this Mitigated Negative Declaration) that there is no substantial evidence that the project as revised will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Clerk of the Board located at 701 Ocean Street, 5th Floor, Santa Cruz, California.

Review Period Ends: July 21, 2015

Date: _____

TODD SEXAUER, Environmental Coordinator
(831) 454-3511



County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

www.sccoplanning.com

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

Pursuant to the California Environmental Quality Act, the following project has been reviewed by the County Environmental Coordinator to determine if it has a potential to create significant impacts to the environment and, if so, how such impacts could be solved. A Negative Declaration is prepared in cases where the project is determined not to have any significant environmental impacts. Either a Mitigated Negative Declaration or Environmental Impact Report (EIR) is prepared for projects that may result in a significant impact to the environment.

Public review periods are provided for these Environmental Determinations according to the requirements of the County Environmental Review Guidelines. The environmental document is available for review at the County Planning Department located at 701 Ocean Street, in Santa Cruz. You may also view the environmental document on the web at www.sccoplanning.com under the Planning Department menu. If you have questions or comments about this Notice of Intent, please contact Matt Johnston of the Environmental Review staff at (831) 454-3201

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Shawver at (831) 454-3137 (TDD number (831) 454-2123 or (831) 763-8123) to make arrangements.

PROJECT: Hochler Minor Land Division

APP #: 141228

APN(S): 067-041-14

PROJECT DESCRIPTION: The project consists of dividing a 37,314 square foot parcel (0.86 acres) into three parcels of 11,835 net developable square feet (Lot 1); 12,315 net developable square feet (Lot 2); and 10,861 net developable square feet (Lot 3), with a right-of-way of 2,303 square feet. The proposal does not include Architectural Plans as no building is contemplated as part of this Minor Land Division. Design Guidelines have been submitted with the application to guide future building of two single-family dwellings on each of the two newly-created parcels.

PROJECT LOCATION: The proposed project is located on the north side of Lockewood Lane within the Carbonera planning area in the unincorporated County of Santa Cruz.

EXISTING ZONE DISTRICT: R-1-10

APPLICANT: Richard Hochler

OWNER: Richard Hochler

PROJECT PLANNER: Annette Olson

EMAIL: annette.olson@santacruzcounty.us

ACTION: Negative Declaration with Mitigations

REVIEW PERIOD: July 2, 2015 through July 21, 2015.

This project will be considered at a public hearing by the Planning Commission. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.



County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
 KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

MITIGATION MONITORING AND REPORTING PROGRAM
 for the
 Application No. 141228, June 22, 2015
 Hochler Minor Land Division

No.	Environmental Impact	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
Biological Resources					
BIO-1	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?	Prior to ground disturbance, the developer shall purchase credits from the Zayante Sandhills Conservation Bank for each square footage of disturbed area.	Applicant	Compliance monitored by the County Planning Department	To be implemented prior to construction.
BIO-2	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?	On each new parcel of record, the property owner shall record a Declaration of Biotic Restriction acknowledging the sensitive habitat and restoration areas (template included as Attachment 3 of Initial Study). The development envelope shall also be memorialized in the Declaration. Additional mitigation measures are incorporated into the Declaration of Restriction, such as requirements for implementing the Restoration Plan, restrictions against removal of native Sandhills plant species, the prohibition of ground disturbing activities outside of the development envelope, the requirement to construct a permanent split rail fence at the edge of the development envelope to demarcate the restoration area, and restrictions on the use of permanent outdoor lighting that may attract MHJB.	Applicant and County Planning Department	Compliance monitored by the County Planning Department	To be implemented during project design and construction.
BIO-3	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?	Prior to any ground disturbance, temporary fencing shall be placed at the edge of the development envelope and signage will be installed alerting workers to stay out of the restoration area and noticing that the area is a sensitive habitat.	Applicant	Compliance monitored by the County Planning Department	To be implemented during project construction.
BIO-4	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?	Prior to any ground disturbance, a pre-construction meeting shall be held. All workers at the site would participate in a tailgate session to learn about the endangered beetle, its habitat, protective measures, and procedures to follow if any individuals of the MHJB are actually observed at the project site during the course of all construction-related activities. The tailgate session shall be conducted by a person knowledgeable about the MHJB and its habitats, and approved by the U.S. Fish & Wildlife Service to monitor MHJB during construction. The approved monitor shall also act as a construction monitor during the erection of the temporary fencing, initial demolition, grading, and excavation activities. The approved monitor would also periodically visit the project site throughout the construction period to insure that no disturbance occurs to areas outside the development envelope. The monitor shall have the authority to immediately stop any activity that does not comply with the HCP, and to order any reasonable measures to avoid the MHJB.	Applicant	Compliance monitored by the County Planning Department	To be implemented during project construction.

No.	Environmental Impact	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
BIO-5		<p>The Restoration Plan by Jodi M. McGraw, PhD, dated December 24, 2014 (Attachment 4 of Initial Study) shall be implemented, including:</p> <p>Biomass Removal: All invasive plant biomass, including trunks, branches, leaves, fruits and seeds shall be disposed of offsite at a green waste recycling facility or other suitable location. Wood material shall be chipped directly into a container for off-site disposal (rather than piled on the ground). All other material shall be similarly hauled off-site. Invasive control treatments shall be conducted during years 1, 3, and 5 of the five-year restoration plan. This schedule is designed to provide effective control, while reducing costs relative to annual treatment; however, annual treatment can be implemented as resources allow. Follow-up treatments following year 5 will be necessary to prevent re-establishment of invasive plants, and should similarly be conducted as resources allow; however, treatments following the initial five-year period are not a requirement of the restoration plan.</p> <p>Planting Plan: A planting plan shall be developed based on the conditions at the time and availability of native plants. Suitable species include, but are not limited to, coast live oak, ponderosa pine, silverleaf Manzanita, buck brush (<i>Ceanothus cuneatus</i> var. <i>cuneatus</i>), mock heather (<i>Ericameria ericoides</i>), sticky monkey flower (<i>Mimulus aurantiacus</i>), and yarrow (<i>Achillea millefolium</i>). To avoid causing genetic erosion, the native Sandhills plants installed at the restoration area shall be from genetic material (seeds or cuttings) derived from the Whispering Pines Sandhills site or the adjacent Sandhills sites mapped in the Sandhills Conservation and Management Plan (McGraw 2004). Native shrubs and trees can be installed on 8 foot to 12 foot centers; perennial herbs, if used, could be planted at higher density. The plantings should complement the existing vegetation, the condition of which will also influence the total number of plants to be planted.</p> <p>Annual reports: Annual reports of plan implementation will be provided to the County of Santa Cruz Planning Department by January 31 the year following treatment (i.e. years 2, 4, and 6). Each annual report shall include the following:</p> <ol style="list-style-type: none"> A description of the restoration treatments implemented during the year and to date; An assessment of the site conditions including invasive plant and native plant cover effectiveness of the restoration to date; and Recommended changes to the treatments based on the adaptive management process. <p>Prior to construction, the property owner shall submit an arborist report with tree protection recommendations. Those recommendations shall be shown on the project plans. The same arborist shall also provide a plan review letter evaluating whether or not the recommendations are properly reflected on the project plans. Prior to ground disturbance, the recommended tree protection measures shall be installed.</p>	Applicant	Compliance monitored by the County Planning Department	To be implemented during project design, construction, and monitoring.
BIO-6	<p><i>Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and</i></p>		Applicant	Compliance monitored by the County Planning Department	To be implemented during project design and prior to construction.

No.	Environmental Impact	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
BIO-7	<i>Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?</i>	As a part of the Declaration of Biotic Restriction, the oak trees will be identified as being protected in perpetuity. Any tree removals necessary for safety reasons shall be removed as a part of a Significant Tree removal permit. Impacts from project implementation would be less than significant with mitigation incorporated.	Applicant and County Planning Department	Compliance monitored by the County Planning Department	To be implemented during project design and during construction.
BIO-8	<i>Produce nighttime lighting that would substantially illuminate wildlife habitats?</i>	Permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security).	Applicant	Compliance monitored by the County Planning Department	To be implemented during project design, construction, and operations.

Subdivision Findings

1. That the proposed subdivision meets all requirements or conditions of the Subdivision Ordinance and the State Subdivision Map Act.

This finding can be made, in that the project meets all of the technical requirements of the Subdivision Ordinance and is consistent with the County General Plan and the Zoning Ordinance as set forth in the findings below.

2. That the proposed subdivision, its design, and its improvements, are consistent with the General Plan, and the area General Plan or Specific Plan, if any.

This finding can be made, in that this project which creates three new parcels of 11,835 (Lot 1); 12,315 (Lot 2); and 10,861 (Lot 3) net developable square feet is located in the Residential, Urban Low Density General Plan land use designation which authorizes a density of development of one dwelling unit per 6,000-10,000 square feet of net developable area.

The project is consistent with the General Plan in that the full range of urban services is available to the site including municipal water, sewer service, and nearby recreational opportunities. The land division is located on a designated arterial street that provides satisfactory access. The proposed land division is similar to the pattern and density of surrounding residential development, near neighborhood and community shopping facilities and opportunities, and enjoys adequate and safe vehicular and pedestrian access from public streets.

The land division is consistent with the General Plan regarding infill development in that the proposed residential development is harmonious to the pattern of surrounding development, future development on the parcels, as guided by the Architectural Guidelines, will result in dwellings that fit within the range of existing range of architectural style in the area and will be and compatible to the residential character of the neighborhood.

Further, the land division complies with General Plan Policy 5.1.5 (Land Division and Density Requirements in Sensitive Habitats) in that the project meets the criteria to use the Zayante Sandhills Conservation Bank and has been through Environmental Review where several mitigations were added to the project to protect the Sandhills and oak woodland sensitive habitats. As required by General Plan Policy 5.1.7 (Site Design and Use Regulations), development envelopes have been identified and deed restrictions identifying the sensitive habitat and limitations will be required to be recorded on each new parcel's deed. The project also complies General Plan Policy 5.1.12 (Habitat Restoration with Development Approval) in that, the Restoration Plan developed by Jodi McGraw, Ph.D., will improve the Sandhills habitat located outside of the development envelopes. .

3. That the proposed subdivision complies with Zoning Ordinance provisions as to uses of land, lot sizes and dimensions and any other applicable regulations.

This finding can be made, in that the use of the property will be residential in nature, lot sizes meet the minimum dimensional standard for the R-1-10 zone district where the project is located and all yard setbacks—except the street yard setback on Lots 1 and 3 (see Variance findings)-- will be consistent with zoning standards. Further, the project, as conditioned, is consistent with all requirements of Chapter 13.11 of the County Code, the Site, Architectural and Landscape Design Review ordinance.

4. That the site of the proposed subdivision is physically suitable for the type and density of development.

This finding can be made, in that no challenging topography affects the site, a geotechnical report prepared for the property concludes that the soils of the site will support the land division, and the proposed lot configuration will ensure efficiency in further development of the property. The project complies with the criteria established by the United States Fish and Wildlife Service for use of the IPHCP, including its location within the IPHCP area and a maximum new disturbance of 15,000 square feet.

5. That the design of the proposed subdivision or type of improvements will not cause substantial environmental damage nor substantially and avoidably injure fish or wildlife or their habitat.

This finding can be made, in that although the site contains both Sandhills and oak woodland sensitive habitats, the Environmental Review process resulted in a Mitigated Negative Declaration pursuant to the California Environmental Quality Act and the County Environmental Review Guidelines. The mitigations will ensure that no significant environmental impacts will result from the proposed land division. Additionally, this is infill development where the surrounding neighborhood has been developed to urban densities.

6. That the proposed subdivision or type of improvements will not cause serious public health problems.

This finding can be made, in that municipal water and sewer are available to serve the proposed development. Adequate vehicular and pedestrian access has been provided with the new, engineered right-of-way which was reviewed and accepted by the City of Scotts Valley's Department of Public Works.

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

This finding can be made, in that no easements are known to encumber the property.

8. The design of the proposed subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities.

This finding can be made, in that the resulting parcels are oriented to the fullest extent possible in a manner to take advantage of solar opportunities. Although no specific house designs are contemplated at this point, the required Architectural Guidelines calls for encouraging home designs which are oriented to optimize solar access.

9. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the submitted Architectural Guidelines will result in homes that comply with the County's Design Standards and Guidelines. County Code 13.11.072 provides criteria for compatible site design, including: location and access, building bulk, mass and scale, relationship to natural site features, streetscape relationships, and street design. The proposed land division is in-fill development, making its location appropriate. Access is provided by an arterial roadway, Lockwood Lane, and a new right-of-way serving the three new parcels. The right-of-way was designed to fit into the street hierarchy and to provide adequate access without "over-building" the right-of-way. Building bulk, mass and scale will be controlled by the submitted Architectural Guidelines which calls for varied one- and two-story massing, as well as architectural details such as porches which will minimize the apparent mass and bulk of the new homes. The project has incorporated the existing mature trees which are the most distinctive natural feature on-site. A condition of approval is included to ensure that the sides of the homes that are visible from Lockwood Lane architecturally "acknowledge" Lockwood Lane with a wrap-around porch (as encouraged in the Architectural Guidelines), and/or sufficient fenestration.

Variance Findings

1. That because of special circumstances applicable to the property, including size, shape, topography, location, or surroundings, the strict application of the Zoning Ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

This finding can be made, in that the Variance request to reduce the street side yard setback of lots 1 and 3 to 10 feet from the required 20 feet is a result of three special circumstances affecting the parcel, namely the parcel's location along an arterial roadway and the presence of two sensitive habitats on-site—Sandhills and oak woodland--which constrains the location and amount of allowed development.

Lockewood Lane is an arterial roadway. Although the subject parcel has enough frontage length to provide for three lots with their own driveways, current road engineering practice is to limit the number of driveway cuts onto arterial roadways in order to allow traffic to flow unimpeded. General Plan Policy 3.11.1 (Functional Street Classification and Street Standards in Urban Areas) supports this practice by requiring projects to minimize side traffic interference and limit driveways along arterial roadways whenever possible. The project conforms to this policy by using the existing driveway to provide access to all three new parcels. One consequence of this is that Lots 1 and 2 become corner lots and are then required to provide street side yard setbacks of 20 feet along the new right-of-way. Had the parcel not been located along an arterial roadway, the lots would not have been constrained in this way.

The second special circumstance is the presence of oak woodland sensitive habitat on site. If it were possible to construct three driveway cuts onto Lockewood, the driveway cuts would require the removal of the existing mature oak trees located along the parcel's frontage. The California Environmental Quality Act (CEQA) requires projects to first avoid impacting a sensitive habitat before mitigating for an impact. In this case, utilizing the existing driveway allows the project design to retain the oak trees.

Finally, the Sandhills habitat limits the development area of the new parcels with the IPHCP allowing for only 15,000 square feet of new disturbance. The surrounding parcels were developed prior to this restriction and were not therefore limited in the same way. By allowing the street side yard setback Variance, the new parcels will maximize the usable development area without disturbing any additional Sandhills habitat because a portion of the existing driveway area would be included in the development envelopment which otherwise would be in the setback area and not available for development.

2. That the granting of the Variance will be in harmony with the general intent and purpose of zoning objectives and will not be materially detrimental to public health, safety, or welfare or injurious to property or improvements in the vicinity.

This finding can be made, in that the general intent and purpose of setbacks is to provide light, air and open space to adjacent properties and visibility along streets. In this situation, existing neighboring properties will not be affected as the setback reduction is for setbacks internal to the project. Because the 24-foot wide right-of-way separates Lots 1 and 3, the effective side yard setback for the houses constructed on those parcels will be 34 feet (24 foot right-of-way plus the

Application #: 141228
APN: 067-041-14
Owner: Richard S. Hochler Trustees

proposed 10 foot setback), which substantially exceeds the zone district standard of 20 feet. Therefore, those houses' access to light, air and open space will be preserved.

The proposed Variance would not be detrimental to public health, safety or welfare in that the line of sight for drivers exiting the parcels would be the same since a setback of 20 feet is required from the face of garage and no Variance request for this standard is requested.

3. That the granting of such variances shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such is situated.

This finding can be made, in that the existing homes in the vicinity located within the County are not corner lots and therefore are not burdened in the same way that Lots 1 and 3 are with a 20 foot street side setback. This coupled with the presence of two sensitive habitats (Sandhills and oak woodland) significantly restrict the development potential of the new lots. The granting of the Variance to allow a 10 foot street yard setback would not be a grant of special privilege inconsistent with the limitations upon other properties in the vicinity in that the other properties in the vicinity were developed without these encumbrances. The surrounding homes were built between the years 1953 and 1976.

Roadway / Roadside Exception Findings
(One of the following findings must be made.)

1. The improvements are not appropriate due to the character of development in the area and the lack of such improvements on surrounding developed property.

A Roadway / Roadside Exception is requested to vary from the minimum local urban street standard described in the County's Design Criteria, where a 40 foot wide right-of-way is required which includes: two 12-foot travel lanes, parking on one side, a landscape strip, curb and sidewalk. In this case, this standard is not appropriate due to the character of the proposed development as well as the character of development in the area.

The proposed land division would result in three new lots. Once the first lot has been accessed—about 50 feet (i.e. approximately three car lengths) from the entrance to the parcel—the right-of-way is considered to be a driveway as driveways may serve up to two lots (County Code 15.10.040 defines "Local Street" as a "street serving three or more lots"). This initial portion of the new right-of-way, is proposed to be 24 feet wide with two nine-foot wide travel lanes edged on each side with a curb. This is appropriate for the proposed development in that only a short section of the new right-of-way is considered to be a roadway and, given that only three new parcels are to be created, smaller travel lanes will provide adequate vehicular access. Given the limited vehicular travel on the new right-of-way, pedestrians will be able walk safely along the edges of the new right-of-way.

Requiring the Design Criteria standard for the minimum local urban street would be out of character with the surrounding neighborhood. Lockewood Lane, an arterial roadway with a paved width of about 30 feet, has sidewalks only on its east side (the side across from the subject parcel) and no on-street parking in the vicinity of the project site. Within a street network, a lesser standard is generally expected for roadways lower on the street hierarchy. Therefore, it is reasonable that a right-of-way serving only three dwellings for a length of 50 feet provide 24-foot wide right-of-way. Estrella Drive, which is located nearby, serves over 20 dwellings and has no roadside improvements other than a curb. In addition, because there is no sidewalk on the subject parcel's side of Lockewood Lane, no loss is pedestrian connectivity would result from this reduced standard.

The City of Scotts Valley's Department of Public Works reviewed and accepted the new right-of-way.

2. Local drainage or topographic conditions render the improvements physically infeasible.
3. The improvements would constitute an unacceptable geologic hazard as substantiated by written report by a registered soils engineer or geologist;
4. The improvements would be located in an environmentally sensitive area as shown by information on file in the planning department; and the impacts cannot be satisfactorily mitigated;

The subject parcel has Sandhills and oak woodland Sensitive Habitats. The new right-of-way is sited to utilize the existing driveway, an existing disturbed area. The lesser roadway and roadside

standards are appropriate as they minimize disturbance both of the soil which supports the Mount Hermon June Beetle and does not require the removal of any oak trees.

5. The required improvements would encroach on private property in which neither the developer nor the county have an interest sufficient to allow the improvements to be constructed or installed; the developer has attempted in good faith, but been unable to acquire such an interest; and the county has not acquired such an interest through its power of eminent domain pursuant to sections 14.01.513 or 18.10.240 of the County Code; or
6. For new local streets serving up to four units, if adjoining properties are built-out in accordance with the general plan and it is not possible to design access to meet the local street standard, an exception will be considered at a minimum local street standard, as specified in the County Design Criteria.

Conditions of Approval

Minor Land Division Permit No.: 141228

Applicant: Richard Hochler

Property Owners: Richard Hochler

Assessor's Parcel No.: 067-041-14

Property Location and Address: Property located on the western side of Lockewood Lane in Scotts Valley (504 Lockewood Lane).

Planning Area: Carbonera

Exhibit E

4 sheets, by Robert L. DeWitt & Associates, Revised to 6/12/15: Existing Conditions (P1), Tentative Map (P2), Lockewood Lane Improvements (P3), and Analysis of Disturbed Areas (P4).

All correspondence and maps relating to this land division shall carry the land division permit number noted above.

- I. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
 - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
 - B. Pay the required fee to the Clerk of the Board of the County of Santa Cruz for posting the Negative Declaration as required by the California Department of Fish and Wildlife mitigation fees program. Currently, the fee is \$2,181.25, but is subject to change.
- II. A Parcel Map for this land division must be recorded prior to the expiration date of the tentative map and prior to the sale, lease or financing of any new lots. The Parcel Map shall be submitted to the County Surveyor (Department of Public Works) for review and approval prior to recordation. No improvements, including, without limitation, grading and vegetation removal, shall be done prior to recording the Parcel Map unless such improvements are allowable on the parcel as a whole (prior to approval of the land division). The Parcel Map shall meet the following requirements:
 - A. The Parcel Map shall be in general conformance with the approved tentative map and shall conform to the conditions contained herein. All other State and County laws relating to improvement of the property, or affecting public health and safety shall remain fully applicable.
 - B. This land division shall result in no more than three (3) single-family residential lots.

- C. The minimum lot size shall be 10,000 square feet, net developable land.
- D. The following items shall be shown on the Parcel Map:
 - 1. Show the development envelopes.
 - 2. Show the net area of each lot to the nearest square foot.
 - 3. Show all easements.
- E. The following requirements shall be noted on the Parcel Map as items to be completed prior to obtaining a building permit "final" on lots created by this land division:
 - 1. New assessor parcel numbers must be assigned by the Assessor's Office prior to applying for a building permit.
 - 2. Lots shall be connected for water service to San Lorenzo Water District.
 - 3. Lots shall be connected for sewer service to the City of Scotts Valley.
 - 4. All future construction on the three new parcels shall conform to the Architectural Guidelines and shall also meet the following additional conditions:
 - a. All-future development shall comply with the development standards for the R-1-10 zone district. No residence shall exceed 40% lot coverage, or a 50% floor area ratio, or other standards as may be established for the zone district. No fencing shall exceed three feet in height within the required front setback unless otherwise approved by the Planning Department.
 - b. The homes proposed for Parcels 1 and 3 must provide adequate fenestration and architectural details to ensure that these elevations acknowledge Lockwood Lane.
 - c. Split-rail fencing shall be placed along the edge of the development envelopes to demarcate the restoration area.
 - d. All permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor) shall be used if outdoor lighting is necessary (e.g. security).
 - 5. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district in which the project is located.
 - 6. All future development shall comply with the recommendations of the project soils report, written by Adrian L. Garner, PE, GE of CMAG Engineering, Inc. dated September 10, 2014.

In addition, all future construction shall conform to the conditions of report acceptance detailed in the acceptance letter by Carolyn Burke dated May 11, 2015, including:

- a. Final plans shall reference the report and include a statement that

project shall conform to the report's recommendations.

- b. After building permit plans are prepared that are acceptable to all reviewing agencies, please submit a signed and stamped *Soils (Geotechnical) Engineer Plan Review Form* to Environmental Planning. The plan review form must reference the final plan set by last revision date. Any updates to report recommendations necessary to address conflicts between the report and plans must be provided via a separate addendum to the soils report. The author of the report shall sign and stamp the completed form.
- c. Submit two original, wet-signed copies of the soils report with the building permit application.

7. Any substantial changes between the approved Tentative Map and Parcel Map must be submitted for review and approval by the decision-making body. Such proposed changes will be included in a report to the decision-making body to consider if they are sufficiently material to warrant consideration at a public hearing noticed in accordance with Section 18.10.223 of the County Code. Any changes that are on the final plans which do not conform to the project conditions of approval shall be specifically illustrated on a separate sheet and highlighted in yellow on any set of plans submitted to the County for review.

III. Prior to recordation of the Parcel Map, the following requirements shall be met:

- A. Submit a letter of certification from the Tax Collector's Office that there are no outstanding tax liabilities affecting the subject parcels.
- B. Submit a Road Maintenance Agreement for the ongoing maintenance of the shared improvements within the right-of-way.
- C. Pay the Zayante Sandhills Conservation Bank for the new disturbance associated with installing the right-of-way and related improvements, if installed prior to building permit issuance.
- D. Submit and secure approval of engineered improvement plans from the County of Santa Cruz Department of Public Works, City of Scotts Valley and the County Planning Department for all roads, curbs and gutters, storm drains, erosion control, and other improvements required by the Subdivision Ordinance, noted on the attached tentative map and/or specified in these conditions of approval. You will be responsible for any bonding or other requirements required by the City of Scotts Valley. Improvement plans shall meet the following requirements:
 1. All improvements shall be prepared by a registered civil engineer.
 2. **Scotts Valley Fire Protection District:** Pay any required fees and comply with the requirements of the fire district.
 3. Pay all required fees and comply with the following requirements of the **City of Scotts Valley:**
 - a. For construction of improvements within the right-of-way of Lockewood Lane: apply for and receive approval of an encroachment permit for improved driveway connection to Lockewood Lane, including drainage calculation for driveway culvert and curb approach contours; utility connections for water and sewer; and replacement of wharf head hydrant and service lateral with standard steamer hydrant.

4. **Environmental Planning:** Submit an erosion/sediment control and grading plan for the construction of the new right-of-way.
5. **County of Santa Cruz, Department of Public Works, Stormwater Management:** Comply with the following requirements:
 - a. Provide final grading, drainage, surfacing and mitigation information for the proposed improvements that will be built with the land division (common driveway, culvert, etc.). Per Part 3, Section C.1.c of the CDC and based on different scenarios presented on sheet P4, this project is considered a large redevelopment project. As such, the project is required to provide mitigations for pollutant and hydrologic impacts due to development. These mitigations shall include Low Impact Development (LID) measures that emphasize minimization of impacts as a first priority consistent with the general plan for minimizing impervious area impacts. The project analysis must demonstrate compliance with sections C.2 and C.3.a, b and c of the CDC.
 - i. Section C.2 Provide a narrative describing which pollutant generating activities and sources are proposed on the project site and how their impacts will be mitigated. Show these on a site map/plan. The map/plan should include or reference recommendations from the California Stormwater Quality Association (CASQA) BMP Handbook for New Development and Redevelopment or equivalent.
 - ii. Section C.3.a: Based on the preliminary drainage study the project site is adequate for retaining runoff from both the 2 and 10 year storms. The project should be conditioned to retain and infiltrate runoff from the 2 and 10 year storms so that runoff leaving the site will not exceed predevelopment rates. The preliminary study further suggests that the driveway areas will be utilized for stormwater mitigation. Please note that Section I of the CDC allows a maximum design saturated permeability of 200 mm/hr (8 inches/hr) to be used when sizing retention facilities. The preliminary study used rates higher than allowed. If retention will also be used to mitigate for the 10 year storm as it appears feasible, the release rate should be updated to match the expected infiltration rate when determining the storage volume to provide.
 - iii. Section C.3.a: Based on the assessment described in Comment 1 above, if downstream inadequacies are identified the project may be required to include downstream improvements or to provide on-site mitigations beyond the County minimum standards.
 - iv. Section C.3.b: Based on the preliminary drainage study this project will retain and infiltrate the 2 year storm in order to minimize stormwater pollutants of concern.
 - v. Section C.3.c: Please include a narrative introduction to the concept of stormwater management on the site in the Stormwater Management Report that addresses each of the Site Design and Runoff Reduction measures called for in this section.
 - d. Provide grading, drainage, surfacing, and mitigation information for the proposed individual lots for impact and mitigation. While the design for the mitigation facilities on the individual lots does not need to be completed prior to final map approval, the proposed mitigation strategy(ies) needs to be identified and demonstrated to be feasible.

- e. Provide final stormwater management plans that are adequately detailed for construction and that demonstrate compliance with the CDC. Design should include provisions for safe overflow, flow control sizing, capacity analysis, treatment, pollution prevention, contaminate screening, drain time and vector control assessment. Plans should clearly describe how runoff from all project areas that are to be constructed as part of the land division (roof, hardscapes, landscapes, rear yards, etc.) will be routed and should include details such as: surface and invert elevations, slopes, surface details, flow control structures, clean-out facilities at pipe connections/grade/direction changes, materials, installation requirements, compaction/decompaction requirements, etc.
 - f. Please confirm with the water department that the water service lines locations relative to the stormwater management is acceptable and in conformance with state and local standards.
 - g. Storm drainage easements should be provided for all common drainage facilities. The final map should clearly depict these easement areas, specifically state that these easements are to be privately maintained, and identify which party(ies) are responsible for maintenance. Easement widths shall be adequate for maintenance, repair and replacement without impact to structures or other permanent facilities.
 - h. Provide landscape and architectural plans with surfacing, grading, and drainage information for review for consistency with the civil plans.
 - i. Include signage at each proposed storm drain inlet stating “No Dumping – Drains to Bay” or equivalent. This signage shall be privately maintained.
 - j. Recorded maintenance agreement(s) for stormwater management and mitigation facilities is required. Include detailed management activities, maintenance requirements, schedule, signs of system failure, and responsible party both in the recorded maintenance agreement as well as the final plans. The maintenance agreement should also include the standard language provided in Fig. SWM-25B of the CDC.
 - k. Provide a letter from the geotechnical engineer reviewing and approving the final stormwater management design. If the final plan includes infiltrative stormwater management facilities the geotechnical letter should confirm that the site soils encountered are consistent with the design infiltration rate used in the design.
- E. Park Dedication in-lieu fees shall be paid for nine (9) bedrooms (unless more bedrooms are proposed) for Parcel 2. Currently this fee is \$800 per bedroom, but is subject to change.
 - E. Child Care Development fees shall be paid for nine (9) bedrooms for Parcel 2 (unless additional bedrooms are proposed). Currently this fee is \$109 per bedroom, but is subject to change.
 - F. Pay the Carbonera Roadside / Roadway Capital Improvement fees as established in the County Fee Schedule.
 - G. Submit one reproducible copy of the Parcel Map to the County Surveyor for distribution and assignment of temporary Assessor's parcel numbers and situs address.

- IV. All future construction on Parcels 1, 2, and 3 shall meet the following conditions:
- A. All future construction shall comply with the project's Architectural Guidelines and shall be within the approved development envelope. All new utilities shall be underground.
 - B. Pay the Zayante Sandhills Conservation Bank for all new disturbance associated with the construction of each home and related improvements (e.g. driveways and utilities).
 - C. Record a Declaration of Restriction Regarding Sandhills Habitat on each new parcel.
 - D. Record a Declaration of Biotic Restriction on each new parcel which declares that the oak trees are protected and a Significant Tree Removal permit is required for the removal of any diseased or dead trees. An arborist report will be required for any tree removals except if staff determines that a tree proposed for removal is obviously dead.
 - E. The Restoration Plan by Jodi McGraw dated December 24, 2014 shall be implemented.
 - F. Submit a landscape plan for the front yard of each new lot.
 - G. All permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security).
 - H. Comply with the requirements of **Environmental Planning**, including:
 - 1. The dwellings on the new parcels shall be designed to avoid tree removals.
 - 2. Submit an arborist report with tree protection recommendations. Those recommendations shall be shown on the project plans. The same arborist shall also provide a plan review letter evaluating whether or not the recommendations are properly reflected on the project plans.
 - 3. All future construction shall comply with the recommendations of the project soils report by Adrian L. Garner, PE, GE of CMAG Engineering, Inc. dated September 10, 2014, as well as the condition of acceptance detailed in the report acceptance letter by Carolyn Burke dated May 11, 2015, including the requirement to submit grading and drainage plans prepared by a licensed civil engineer with the building permit application. The plan should demonstrate compliance with the recommendations of the project soils report.
 - 4. Prior to any disturbance, construction fencing shall be placed at the edge of the development envelope and signs shall be placed alerting workers to the sensitive habitat with direction to stay out of the restoration area. Construction fencing shall also be placed in accordance with the project arborist's tree protection recommendations.
 - 5. The applicant, grading contractor, County of Santa Cruz and City of Scotts Valley Department of Public Works staff, and Environmental Planning staff shall participate.
 - 6. A pre-construction meeting shall be held for all workers to learn about the Mount Hermon June Beetle and the procedures to follow if a MHJB is found on-site. The meeting shall be run by a person knowledgeable

about the MHJB and its habitats, and approved by the U.S. Fish & Wildlife Service to monitor MHJB during construction. This person shall also act as a construction monitor during the erection of the temporary fencing, initial demolition, grading and excavation activities.

7. The approved monitor would also periodically visit the project site throughout the construction period to insure that no disturbance occurs to areas outside the development envelope. The monitor shall have the authority to immediately stop any activity that does not comply with the project conditions of approval and mitigations and to order any reasonable measures to avoid the MHJB.
-
- I. All required parking shall be provided on-site.
 - J. If more than three bedrooms per home are constructed, additional capital improvement fees will be charged.
 - K. Comply with the requirements of **San Lorenzo Valley Water District**, including the payment of fees.
 - L. Comply with the requirements of **Scotts Valley Fire Protection District**, including the payment of fees and compliance with the California Fire Code as amended by the Scotts Valley Fire Protection District.
 - M. Comply with requirements of the **City of Scotts Valley**, including the payment of fees.
 - N. Comply with the requirements of **DPW, Stormwater Management** and pay the required fees:
 - a. Submit a drainage plan that conforms to the requirements of the County's Design Criteria for each new lot.
 - O. No land clearing, grading or excavating shall take place between October 15 and April 15 unless the Planning Director approves a separate winter erosion-control plan.
 - P. No land disturbance shall take place prior to issuance of building permits (except the minimum required to install required improvements, provide access for County required tests or to carry out other work specifically required by another of these conditions).
 - Q. Pursuant to Sections 16.40.040 and 16.42.080 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.080, shall be observed.
 - R. To minimize noise, dust and nuisance impacts of surrounding properties to insignificant levels during construction, the owner/applicant shall or shall have the project contractor, comply with the following measures during all construction work:
 1. Limit all construction to the time between 8:00 am and 5:00 pm weekdays

unless a temporary exception to this time restriction is approved in advance by County Planning to address an emergency situation.

2. The owner/developer shall designate a disturbance coordinator to respond to citizen complaints and inquiries from area residents during construction. A 24-hour contact number shall be conspicuously posted on the job site, on a sign that shall be a minimum of two feet high and four feet wide. This shall be separate from any other signs on the site, and shall include the language "for construction noise and dust problems call the 24 hour contact number". The name, phone number, and nature of the disturbance shall be recorded by the disturbance coordinator. The disturbance coordinator shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. Unresolved complaints received by County staff from area residents may result in the inclusion of additional Operational Conditions.
3. Each day it does not rain, wet all exposed soil frequently enough to prevent significant amounts of dust from leaving the site. Street sweeping on adjacent on nearby streets maybe be required to control the export of excess dust and dirt.

S. Pay the current Affordable Housing Impact Fee for two dwellings. The fees are based on unit size and the current fee for a 2,500 square foot unit is \$3 per square foot.

V. Operational Conditions

- A. In the event that future County inspections of the subject property disclose non-compliance with any Conditions of this Approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including Approval revocation.
- B. As detailed in the Restoration Plan by Jodi M. McGraw, invasive control treatments shall be conducted during years 1, 3, and 5 of the five-year restoration plan.
- C. Provide an annual report by January 31 the year following treatment (years 2, 4, and 6). Each annual report shall include the following: (1) a description of the restoration treatments implemented during the year and to date; (2) an assessment of the site conditions including invasive plant and native plant cover effectiveness of the restoration to date; and (3) recommended changes to the treatments based on the adaptive management process.
- D. Oak trees shall be protected in perpetuity on each lot of record unless diseased or dead, as established by an arborist. Any tree removal requires a Significant Tree removal permit.

VI. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

- A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
 - 1. COUNTY bears its own attorney's fees and costs; and
 - 2. COUNTY defends the action in good faith.
- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.
- F. Within 30 days of the issuance of this development approval, the Development Approval Holder shall record in the office of the Santa Cruz County Recorder an agreement, which incorporates the provisions of this condition, or this development approval shall become null and void.

VII. Mitigation Monitoring Program

The mitigation measures listed under this heading have been incorporated into the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California Public Resources Code, a monitoring and reporting program for the mitigations is hereby adopted as a condition of approval for this project. This monitoring program is specifically described following each mitigation measure listed below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval including the terms of the adopted monitoring program may result in permit revocation pursuant to Section 18.10.462 of the Santa Cruz County Code. The Mitigation Monitoring and Reporting Program, Exhibit B, is incorporated by reference into these conditions of approval.

Mitigation BIO-1: Conditions III. C. & IV. B. Monitoring Program: Sandhills Impact Avoidance Measures

Prior to ground disturbance, the developer shall purchase credits from the Zayante Sandhills Conservation Bank for each square footage of disturbed area.

Mitigation BIO-2: Conditions II. E. 4. c., IV. C., & IV. E. Monitoring Program: Sandhills Impact Avoidance Measures

On each new parcel of record, the property owner shall record a Declaration of Biotic Restriction acknowledging the sensitive habitat and restoration areas (template included as Attachment 3 of Initial Study). The development envelope shall also be memorialized in the Declaration.

Additional mitigation measures are incorporated into the Declaration of Restriction, such as requirements for implementing the Restoration Plan, restrictions against removal of native Sandhills plant species, the prohibition of ground disturbing activities outside of the development envelope, the requirement to construct a permanent split rail fence at the edge of the development envelope to demarcate the restoration area, and restrictions on the use of permanent outdoor lighting that may attract MHJB.

Mitigation BIO-3: Condition IV. H. 4. Monitoring Program: Sandhills Impact Avoidance Measures

Prior to any ground disturbance, temporary fencing shall be placed at the edge of the development envelope and signage will be installed alerting workers to stay out of the restoration area and noticing that the area is a sensitive habitat.

Mitigation BIO-4: Conditions IV. G. 4., 6. & 7. Monitoring Program: Sandhills Impact Avoidance Measures

Prior to any ground disturbance, a pre-construction meeting shall be held. All workers at the site would participate in a tailgate session to learn about the endangered beetle, its habitat, protective measures, and procedures to follow if any individuals of the Mount Hermon June Beetle (MHJB) are actually observed at the project site during the course of all construction-related activities. The tailgate session shall be conducted by a person knowledgeable about the MHJB and its habitats, and approved by the U.S. Fish & Wildlife Service to monitor MHJB during construction. The approved monitor shall also act as a construction monitor during the erection of the temporary fencing, initial demolition, grading, and excavation activities.

The approved monitor would also periodically visit the project site throughout the construction period to insure that no disturbance occurs to areas outside the development envelope. The monitor shall have the authority to immediately stop any activity that does not comply with the IPHCP, and to order any reasonable measures to avoid the MHJB.

Mitigation BIO-5: Conditions IV.E, V. B. & C. Monitoring Program: Sandhills Restoration and Enhancement

The Restoration Plan by Jodi M. McGraw, PhD, dated December 24, 2014 (Attachment 4 of Initial Study) shall be implemented, including:

Biomass Removal: All invasive plant biomass, including trunks, branches, leaves, fruits and seeds shall be disposed of offsite at a green waste recycling facility or other suitable location. Wood material shall be chipped directly into a container for off-site disposal (rather than piled on the ground). All other material shall be similarly hauled off-site. Invasive control treatments shall be conducted during years 1, 3, and 5 of the five-year restoration plan. This schedule is designed to provide effective control, while reducing costs relative to annual treatment; however, annual treatment can be implemented as resources allow. Follow-up treatments following year 5 will be necessary to prevent re-establishment of invasive plants, and should similarly be conducted as resources allow; however, treatments following the initial five-year period are not a requirement of the restoration plan.

Planting Plan: A planting plan shall be developed based on the conditions at the time and availability of native plants. Suitable species include, but are not limited to, coast live oak, ponderosa pine, silverleaf Manzanita, buck brush (*Ceanothus cuneatus* var. *cuneatus*), mock heather (*Ericameria ericoides*), sticky monkey flower (*Mimulus aurantiacus*), and yarrow (*Achillea millefolium*). To avoid causing genetic erosion, the native Sandhills plants installed at the restoration area shall be from genetic material (seeds or cuttings) derived from the Whispering Pines Sandhills site or the adjacent Sandhills sites mapped in the Sandhills Conservation and Management Plan (McGraw 2004). Native shrubs and trees can be installed on 8 foot to 12 foot centers; perennial herbs, if used, could be planted at higher density. The plantings should complement the existing vegetation, the condition of which will also influence the total number of plants to be planted.

Annual reports: Annual reports of plan implementation will be provided to the County of Santa Cruz Planning Department by January 31 the year following treatment (i.e. years 2, 4, and 6). Each annual report shall include the following:

- a. A description of the restoration treatments implemented during the year and to date;
- b. An assessment of the site conditions including invasive plant and native plant cover effectiveness of the restoration to date; and
- c. Recommended changes to the treatments based on the adaptive management process.

Mitigation BIO-6: Conditions IV. H. 2. & 4. Monitoring Program: Oak Woodland Impact Avoidance:

Prior to construction, the property owner shall submit an arborist report with tree protection recommendations. Those recommendations shall be shown on the project plans. The same arborist shall also provide a plan review letter evaluating whether or not the recommendations are properly reflected on the project plans. Prior to ground disturbance, the recommended tree protection measures shall be installed.

Mitigation BIO-7: Conditions IV. D. & V. D. Monitoring Program: Oak Woodland Impact Avoidance:

As a part of the Declaration of Biotic Restriction, the oak trees will be identified as being protected in perpetuity. Any tree removals necessary for safety reasons shall be removed as a part of a Significant Tree removal permit.

Mitigation BIO-8: Conditions II. E. 4. d. & IV. G. Monitoring Program: MHJB Impact Avoidance:

Permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security).

AMENDMENTS TO THIS LAND DIVISION APPROVAL SHALL BE PROCESSED IN ACCORDANCE WITH CHAPTER 18.10 OF THE COUNTY CODE.

This Tentative Map is approved subject to the above conditions and the attached map, and expires 24 months after the 14-day appeal period. The Final Map for this division, including improvement plans if required, should be submitted to the County Surveyor for checking **at least 90 days** prior to the expiration date and in no event later than 3 weeks prior to the expiration date.

cc: County Surveyor

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Steve Guiney, AICP
Principal Planner

Annette Olson
Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Planning Commission, may appeal the act or determination to the Board of Supervisors in accordance with chapter 18.10 of the Santa Cruz County Code.

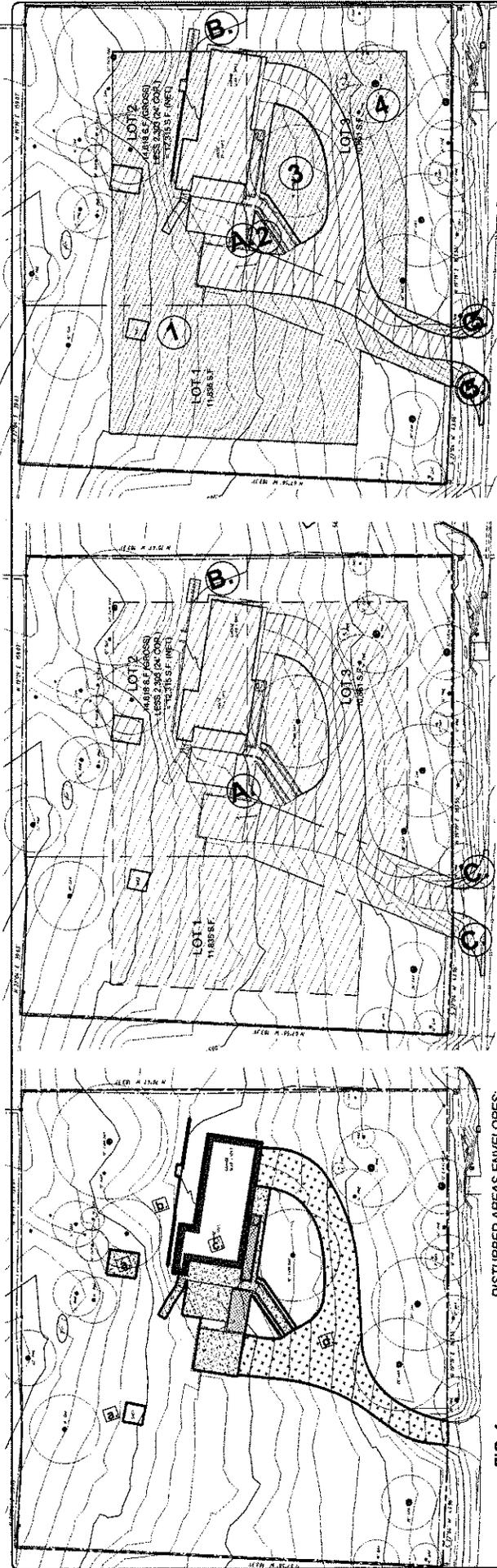


FIG. 1
EXISTING

DISTURBED AREAS ENVELOPES:

Shed	211 S.F.
Circle	98 S.F.
House, parking, walk, driveway	3,200 S.F.
A.C. paved driveway	3,115 S.F.
TOTAL	6,624 S.F.

- DISTURBANCE AREAS NOTES:**
1. THE PARCEL IS WITHIN THE SAND HILLS BIOTIC AREA.
 2. THE DEVELOPMENT AREA FOR THE SUBDIVISION IS LIMITED TO AN INCREMENTAL INCREASE OF DISTURBED AREAS OF NO MORE THAN 15,000 S.F. MORE THAN THE EXISTING DISTURBED AREAS.
 3. WITHIN THE DEVELOPMENT ENVELOPE SHOWN, THE SUM OF THE ADDITIONAL DISTURBED AREAS IS CALCULATED TO BE 14,750 S.F. THIS IS LESS THAN THE 15,000 S.F. ADDITIONAL ALLOWED.
 4. FINAL BUILDING PERMIT PLAN SET MAY VARY THE SITE PLAN LAYOUT, SO LONG AS THE 15,000 S.F. LIMITATION IS NOT EXCEEDED. UPDATED PROPOSED DISTURBANCE AREA CALCULATIONS ARE TO BE SUBMITTED WITH THE BUILDING PERMIT APPLICATION.

(NOTE: EXAMPLE SITE PLAN LAYOUT IS SCHEMATIC ONLY AND SUBJECT TO CHANGE WHEN BUILDING PERMIT APPLICATION IS SUBMITTED)

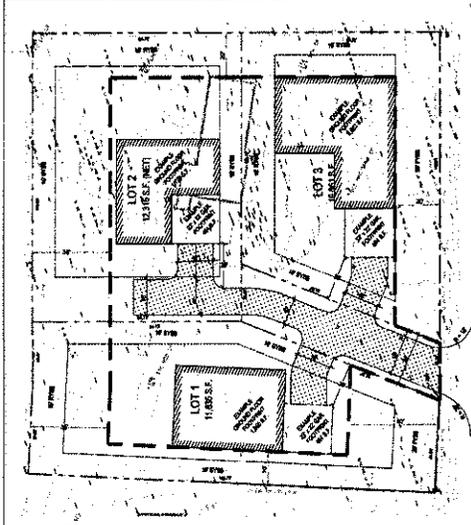
FIG. 2
PROPOSED

1	48 S.F.
2	282 S.F.
3	5,435 S.F.
TOTAL	5,765 S.F.

FIG. 3
ADDITIONAL

SUMMARY OF ADDITIONAL DISTURBED AREAS:

1	10,262 S.F.
2	107 S.F.
3	1,887 S.F.
4	2,875 S.F.
5	282 S.F.
TOTAL	14,993 S.F.



ANALYSIS OF DISTURBED AREAS

MINOR LAND DIVISION
PREPARED AT THE REQUEST OF
RICK HOCHLER
A.P.N. 067-041-14
SCOTT'S VALLEY, CA.

9-23-15
DATE



ROBERT L. DEWITT

Robert L. DeWitt
Civil Engineers & Land Surveyors
1901 Ocean Street, Suite 1000
Scott's Valley, CA 95701
Tel: 925-437-1817
Fax: 925-437-0224

PROJECT: P4 of 4
SHEET: 4 of 4
DATE: 9-23-15
ISSUED: 6-12-15



County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

www.sccoplanning.com

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date: June 22, 2015

Application Number: 141228

Project Name: Hochler Minor Land Div.

Staff Planner: Annette Olson

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Richard Hochler

APN(s): 067-041-14

OWNER: Richard Hochler

SUPERVISORAL DISTRICT: 5th

PROJECT LOCATION: The proposed project is located on the north side of Lockewood Lane within the Carbonera planning area in the unincorporated County of Santa Cruz. The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

SUMMARY PROJECT DESCRIPTION: The project consists of dividing a 37,314 square foot parcel (0.86 acres) into three parcels of 11,835 net developable square feet (Lot 1); 12,315 s.f. net developable square feet (Lot 2); and 10,861 net developable square feet (Lot 3), with a right-of-way of 2,303 square feet. The proposal does not include Architectural Plans as no building is contemplated as part of this Minor Land Division (see Figure 2 below). Design Guidelines have been submitted with the application to guide future building of two single-family dwellings on each of the two newly-created parcels.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

- | | |
|---|---|
| <input type="checkbox"/> Aesthetics and Visual Resources | <input type="checkbox"/> Land Use and Planning |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Noise |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Hydrology/Water Supply/Water Quality | <input type="checkbox"/> Mandatory Findings of Significance |

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- | | |
|--|---|
| <input type="checkbox"/> General Plan Amendment | <input type="checkbox"/> Coastal Development Permit |
| <input checked="" type="checkbox"/> Land Division | <input type="checkbox"/> Grading Permit |
| <input type="checkbox"/> Rezoning | <input type="checkbox"/> Riparian Exception |
| <input checked="" type="checkbox"/> Development Permit | <input type="checkbox"/> LAFCO Annexation |
| <input type="checkbox"/> Sewer Connection Permit | <input checked="" type="checkbox"/> Other: Roadside/Roadway Exception |

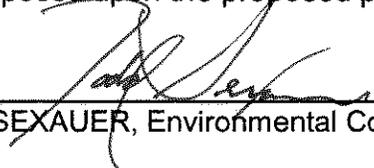
OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):

<u>Permit Type/Action</u>	<u>Agency</u>
Encroachment Permit	City of Scotts Valley

DETERMINATION:

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



TODD SEXAUER, Environmental Coordinator

10/15/15

Date

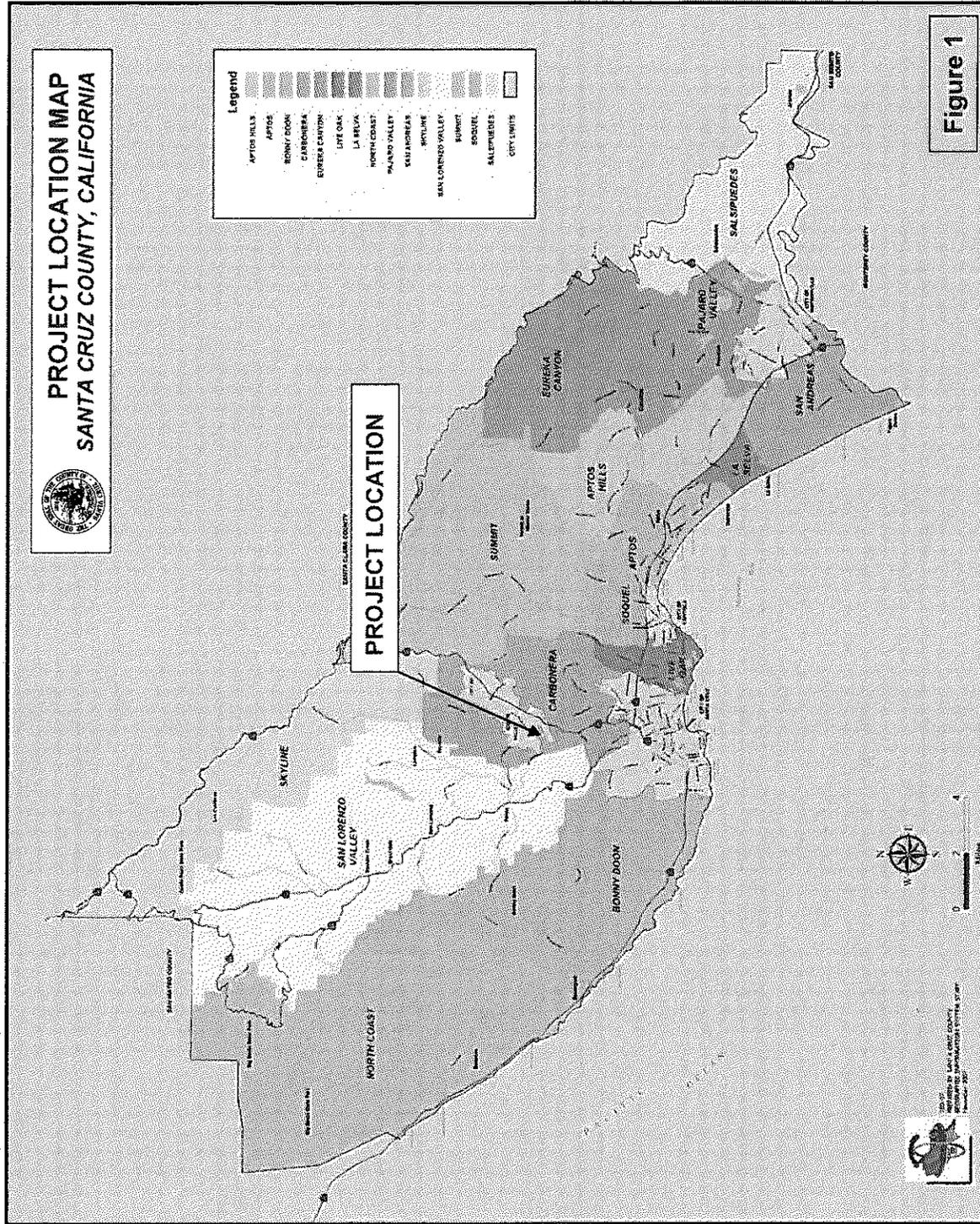


Figure 1

Application Number: 141228

Hochler Minor Land Division



This page intentionally left blank.

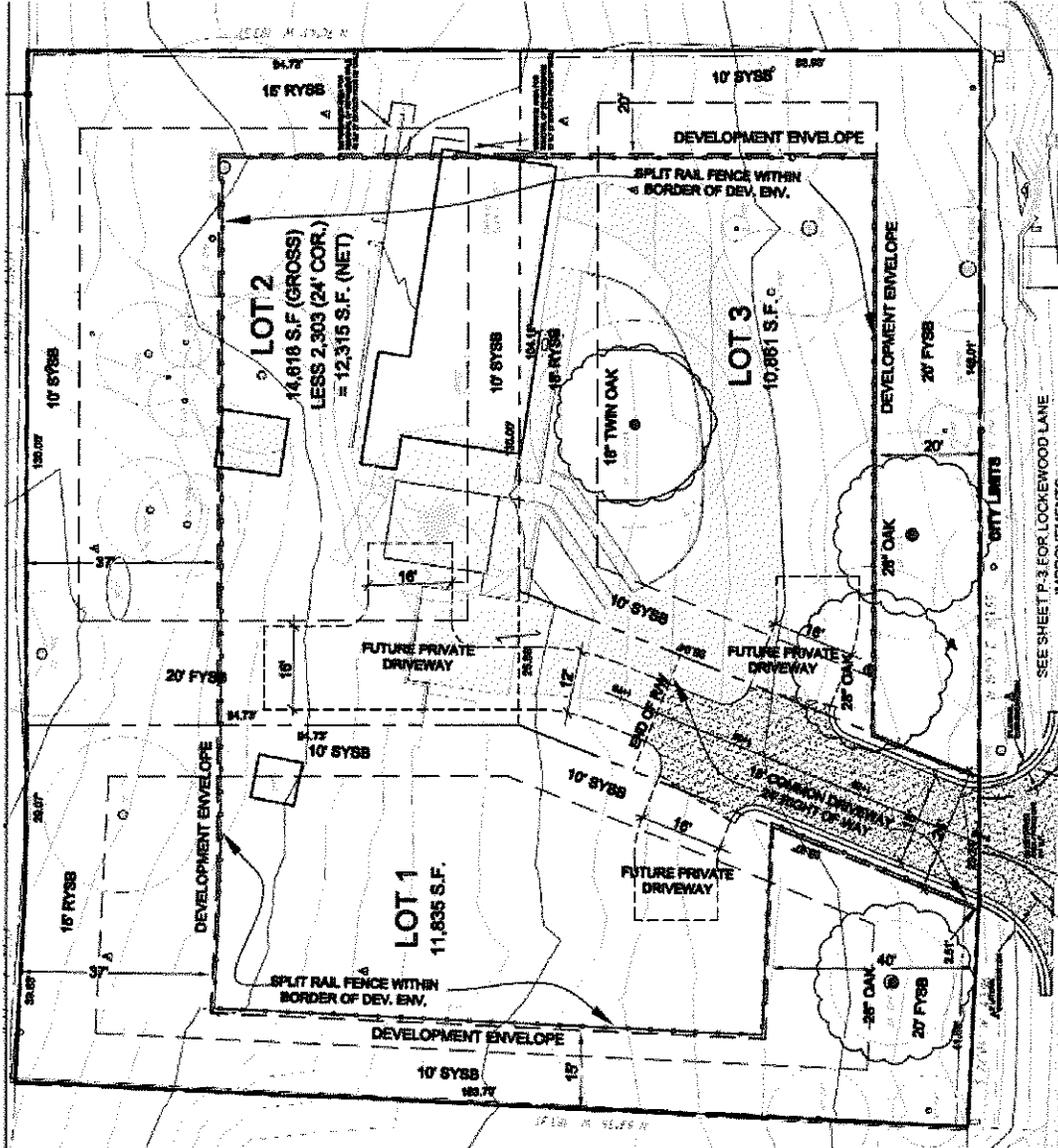


Figure 2: Project Site Plan

Application Number: 141228

Hochler Minor Land Division



This page intentionally left blank.

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres): 37,314 s.f. (.86 acres)
 Existing Land Use: Residential
 Vegetation: Oak woodland, Ponderosa pine
 Slope in area affected by project: 0 - 30% 31 - 100% N/A
 Nearby Watercourse: Camp Evers Creek
 Distance To: 1,708 feet to the west

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	Mapped	Fault Zone:	None mapped
Groundwater Recharge:	Mapped	Scenic Corridor:	No
Timber or Mineral:	Not Mapped	Historic:	No
Agricultural Resource:	Not Mapped	Archaeology:	Yes
Biologically Sensitive Habitat:	Zayante Sandhills Habitat - IPHCP area; Oak Woodland	Noise Constraint:	No
Fire Hazard:	SRA-Mod	Electric Power Lines:	No
Floodplain:	No	Solar Access:	Available
Erosion:	High Potential	Solar Orientation:	Available
Landslide:	Not mapped	Hazardous Materials:	None known
Liquefaction:	Not mapped	Other:	

SERVICES:

Fire Protection:	Scotts Valley	Drainage District:	None
School District:	Scotts Valley	Project Access:	Lockewood Ln.
Sewage Disposal:	Scotts Valley	Water Supply:	San Lorenzo Valley Water District

PLANNING POLICIES:

Zone District: R-1-10
 General Plan: R-UL
 Urban Services Line: Inside Outside
 Coastal Zone: Inside Outside
 Special Designation: n/a

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Natural Environment

Santa Cruz County is uniquely situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The Pacific Ocean and Monterey Bay to the west and south, the mountains inland, and the prime agricultural lands along both the northern and southern coast of the county create limitations on the style and amount of building that can take place. Simultaneously, these natural features create an environment that attracts both visitors and new residents every year. The natural landscape provides the basic features that set Santa Cruz apart from the surrounding counties and require specific accommodations to ensure building is done in a safe, responsible and environmentally respectful manner.

The California Coastal Zone affects nearly one third of the land in the urbanized area of the unincorporated County with special restrictions, regulations, and processing procedures required for development within that area. Steep hillsides require extensive review and engineering to ensure that slopes remain stable, buildings are safe, and water quality is not impacted by increased erosion. The farmland in Santa Cruz County is among the best in the world, and the agriculture industry is a primary economic generator for the County. Preserving this industry in the face of population growth requires that soils best suited to commercial agriculture remain active in crop production rather than converting to other land uses.

PROJECT BACKGROUND:

The subject property is located on Lockwood Lane, a road maintained by the City of Scotts Valley. The parcel to be divided is developed with a single-family dwelling and related improvements. The surrounding area is developed with single-family homes, developed at an urban low density. The parcel is zoned R-1-10, as are the surrounding properties in the neighborhood. The General Plan designation for the subject and adjacent lots is Urban Residential-Low Density (R-UL). The subject site is located within the Urban Services Line. The parcels across the street from the project site are located within the City of Scotts Valley.

The lot slopes down slightly from west to east. The majority of the parcel is vegetated with a combination of oak and ponderosa pine trees. The soil consists of silty sand and sand and constitutes Zayante Sandhills Habitat, which potentially provides habitat for several state and federally listed endangered plant and animal species. The site is located within the Interim Programmatic Habitat Conservation Plan (IPHCP) area. Pursuant to the IPHCP and the approval of the Santa Cruz County Board of Supervisors, Minor Land Divisions within the IPHCP are allowed so long as the total area of disturbance is limited to 15,000 square feet total.

DETAILED PROJECT DESCRIPTION:

The project description is based on a Tentative Map prepared by Robert L. DeWitt and Associates dated June 2015. The project consists of dividing a 37,314 square foot parcel (0.86 acres) into three parcels of 11,835 net developable square feet (Lot 1); 12,315 s.f. net developable square feet (Lot 2); and 10,861 net developable square feet (Lot 3), with a right-of-way of 2,303 square feet. The proposal does not include Architectural Plans as no building is contemplated as part of this Minor Land Division. Design Guidelines have been submitted with the application to guide future building of two single-family dwellings on each of the two newly-created parcels.

The Parcel Map for the Minor Land Division would state that all future development for the newly-created parcels shall be limited to no more than 15,000 square feet of total disturbance, to include grading, drainage improvements, utility trenching, placement of impervious surfaces or structures, and landscaping. This 15,000 square feet of new disturbance is in addition to the existing 6,685 s.f. area of disturbance created by the existing single-family dwelling and associated improvements.

As this proposal does not include the construction of any structures or improvements, no grading or drainage plans have been submitted with the application. Conditions of approval require all future development to maintain existing drainage patterns via retention and infiltration of additional runoff and to maintain pre-development runoff levels.

The General Plan land use designation for the site, R-UL (Urban Low Density Residential) allows a density range of 4.4 to 7.2 units per net developable acre, which corresponds to lot size requirements of 6,000 to 10,000 square feet of net developable parcel area. Due to the presence of sensitive Sandhills Habitat throughout the entire parcel, further division is not feasible. Therefore the proposed configuration provides the maximum density possible for this parcel.

The proposed parcels would obtain water and sewer service from the San Lorenzo Valley Water District and the City of Scotts Valley respectively.

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Would the project:

1. Have a substantial adverse effect on a scenic vista?

Discussion: The project would not directly impact any public scenic resources, as designated in the County's General Plan (1994), or obstruct any public views of these visual resources.

2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Discussion: The project site is not located along a County designated scenic road, public viewshed area, scenic corridor, within a designated scenic resource area, or within a state scenic highway. Therefore, no impact is anticipated.

3. Substantially degrade the existing visual character or quality of the site and its surroundings?

Discussion: The existing visual setting is a suburban neighborhood. The proposed project is designed and landscaped so as to fit into this setting.

4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Discussion: The project would create an incremental increase in night lighting. However, this increase would be small, and would be similar in character to the lighting associated with the surrounding existing uses

B. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, the project does not contain Farmland of Local Importance. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide or Farmland of Local Importance would be converted to a non-agricultural use. No impact would occur from project implementation.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site is zoned R-1-10 (single-family residential, 10,000 square foot minimum parcel size) which is not an agricultural zone. Additionally, the project site's land is not under a Williamson Act Contract. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act Contract. No impact is anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project is not located near land designated as Timber Resource. Therefore, the project would not affect the resource or access to harvest the resource in the future.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: No forest land occurs on the project site or in the immediate vicinity. See discussion under B-3 above. No impact is anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site and surrounding area within a radius of two miles does not contain any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project site contains no forest land, and no forest land occurs within about one mile of the proposed project site. Therefore, no impacts are anticipated.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has been relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project would not conflict with or obstruct any long-range air quality plans of the Monterey Bay Unified Air Pollution Control District (MBUAPCD, Attachment 10). Because general construction activity related emissions (i.e., temporary sources) are accounted for in the emission inventories included in the plans, impacts to air quality plan objectives are less than significant. See C-2 below.

General estimated basin-wide construction-related emissions are included in the MBUAPCD emission inventory (which, in part, form the basis for the air quality plans cited below) and are not expected to prevent long-term attainment or maintenance of the ozone and particulate matter standards within the North Central Coast Air Basin (NCCAB).

Therefore, temporary construction impacts related to air quality plans for these pollutants from the proposed project would be less than significant, and no mitigation would be required, since they are presently estimated and accounted for in the District's emission inventory, as described below. No stationary sources would be constructed that would be long-term permanent sources of emissions.

2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Discussion: Santa Cruz County is located within the North Central Coast Air Basin (NCCAB). The NCCAB does not meet state standards for ozone (reactive organic gases [ROGs] and nitrogen oxides [NOx]) and fine particulate matter (PM₁₀). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors and PM₁₀.

Ozone is the main pollutant of concern for the NCCAB. The primary sources of ROG within the air basin are on- and off-road motor vehicles, petroleum production and marketing, solvent evaporation, and prescribed burning. The primary sources of NOx are on- and off-road motor vehicles, stationary source fuel combustion, and industrial processes. In 2010, daily emissions of ROGs were estimated at 63 tons per day. Of this, area-wide sources represented 49 percent, mobile sources represented 36 percent, and stationary sources represented 15 percent. Daily emissions of NOx were estimated at 54 tons per day with 69 percent from mobile sources, 22 percent from stationary sources, and 9 percent from area-wide sources. In addition, the region is "NOx sensitive," meaning that ozone formation due to local emissions is more limited by the availability of NOx as opposed to the availability of ROGs (MBUAPCD, 2013b).

PM₁₀ is the other major pollutant of concern for the NCCAB. In the NCCAB, highest particulate levels and most frequent violations occur in the coastal corridor. In this area, fugitive dust from various geological and man-made sources combines to exceed the standard. Nearly three quarters of all NCCAB exceedances occur at these coastal sites where sea salt is often the main factor causing exceedance (MBUAPCD, 2005). In 2005 daily emissions of PM₁₀ were estimated at 102 tons per day. Of this, entrained road dust represented 35 percent of all PM₁₀ emission, windblown dust 20 percent, agricultural tilling operations 15 percent, waste burning 17 percent, construction 4 percent, and mobile sources, industrial processes, and other sources made up 9 percent (MBUAPCD, 2008).

Given the modest amount of new traffic that would be generated by the project there is no indication that new emissions of ROGs or NOx would exceed MBUAPCD thresholds for these pollutants; and therefore, there would not be a significant contribution to an existing air quality violation.

Project construction may result in a short term, localized decrease in air quality due to generation of PM₁₀. However, standard dust control best management practices, such as periodic watering, would be implemented during construction to avoid significant air quality impacts from the generation of PM₁₀.

3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*
- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Project construction would have a limited and temporary potential to contribute to existing violations of California air quality standards for ozone and PM₁₀ primarily through diesel engine exhaust and fugitive dust. However, the Santa Cruz monitoring station has not had any recent violations of federal or state air quality standards mainly through dispersion of construction-related emission sources. BMPs and BACT described above under C-2 would ensure emissions remain below a level of significance. Therefore, the proposed project would not result in a cumulatively considerable net increase in criteria pollutants. The impact on ambient air quality would be less than significant.

4. *Expose sensitive receptors to substantial pollutant concentrations?*
- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed land division would not generate substantial pollutant concentrations. Emissions from future construction activities represent temporary impacts that are typically short in duration. Impacts to sensitive receptors would be less than significant.

5. *Create objectionable odors affecting a substantial number of people?*
- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: California ultralow sulfur diesel fuel with a maximum sulfur content of 15 ppm by weight would be used in all diesel-powered equipment, which minimizes emissions of sulfurous gases (sulfur dioxide, hydrogen sulfide, carbon disulfide, and carbonyl sulfide). Therefore, no objectionable odors are anticipated from construction activities associated with the proposed project, and no mitigation measures would be required. The proposed project would not create objectionable odors affecting a substantial number of people; therefore, impacts are expected to be less than significant.

D. BIOLOGICAL RESOURCES

Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <p>1. <i>Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion:

Zayante Sandhills Habitat

The site contains Zayante Sandhills Habitat which is a sensitive habitat and has the potential to support federally and state protected species. Of particular concern for the subject parcel is the potential for incidental take of the endangered Mount Hermon June Beetle (MHJB) as the result of the proposed land division. The subject parcel is located within the Interim Programmatic Habitat Conservation Plan area which allows the project to be mitigated by buying credits from the Zayante Sandhills Conservation Bank (Bank). The Bank was established in cooperation with the U.S. Fish & Wildlife Service to provide mitigation for small-scale development located within Sandhills Habitat that has been degraded by dense development. Bank properties support a number of state and federally-listed plant and animal species and the purchase of credits provides a funding mechanism to manage and protect the habitat in perpetuity.

One requirement for using the Bank is limiting disturbance to 15,000 square feet per parcel of record. In this case, that disturbance area would be divided up among the three proposed parcels. A development envelope corresponding to the maximum 15,000 square feet disturbance area would be delineated on the parcel map, subject to approval by Environmental Planning staff, prior to map recordation.

Additionally, conditions of approval require the construction of temporary fencing and signage prior to the start of any ground disturbance. Pre-construction meetings are also required prior to construction and all workers at the site would participate in a tailgate session to learn about the endangered beetle, its habitat, protective measures, and procedures to follow if any individuals of the MHJB are actually observed at the project site during the course of all construction-related activities. The tailgate session shall be conducted by a person knowledgeable about the MHJB and its habitats, and approved by the U.S. Fish & Wildlife Service to monitor MHJB during construction. The approved monitor shall also act as a construction monitor during the erection of the temporary fencing, initial demolition, grading, and excavation activities.

The approved monitor would also periodically visit the project site throughout the construction period to insure that no impacts occur to areas outside the development envelope. The monitor shall have the authority to immediately stop any activity that does not comply with the conditions of the IPHCP, and to order any reasonable measures to avoid the MHJB.

The measures outlined below would also serve to protect any possible occurrence of other protected animal species on site. According to the Dr. Jodi McGraw, no protected plant species were observed on site.

Because the conservation value of the Conservation Bank habitat is considered much greater than that at the project site, and in consideration of the pre-construction protection measures and Declarations of Restriction to be recorded on the deed of each newly created parcel, the potential to significantly impact the biotic resources as a result of the proposed land division has been mitigated to a less than significant level

Mitigation Measures

- BIO-1: Prior to ground disturbance, the developer shall purchase credits from the Zayante Sandhills Conservation Bank for each square footage of disturbed area.
- BIO-2: On each new parcel of record, the property owner shall record a Declaration of Biotic Restriction acknowledging the sensitive habitat and restoration areas (template included as Attachment 3). The development envelope shall also be memorialized in the Declaration. Additional mitigation measures are incorporated into the Declaration of Restriction, such as requirements for implementing the Restoration Plan, restrictions against removal of native Sandhills plant species, the prohibition of ground disturbing activities outside of the development envelope, the requirement to construct a permanent split rail fence at the edge of the development envelope to demarcate the restoration area, and restrictions on the use of permanent outdoor lighting that may attract MHJB.
- BIO-3: Prior to any ground disturbance, temporary fencing shall be placed at the edge of the development envelope and signage will be installed alerting workers to stay out of the restoration area and noticing that the area is a sensitive habitat.
- BIO-4: Prior to any ground disturbance, a pre-construction meeting shall be held. All workers at the site would participate in a tailgate session to learn about the endangered beetle, its habitat, protective measures, and procedures to follow if any individuals of the MHJB are actually observed at the project site during the course of all construction-related activities. The tailgate session shall be conducted by a person knowledgably about the MHJB and its habitats, and approved by the U.S. Fish & Wildlife Service to monitor MHJB during construction. The approved monitor shall also act as a construction monitor during the erection of the

temporary fencing, initial demolition, grading, and excavation activities.

The approved monitor would also periodically visit the project site throughout the construction period to insure that no disturbance occurs to areas outside the development envelope. The monitor shall have the authority to immediately stop any activity that does not comply with the HCP, and to order any reasonable measures to avoid the MHJB.

BIO-5: The Restoration Plan by Jodi M. McGraw, PhD, dated December 24, 2014 (Attachment 4) shall be implemented, including:

Biomass Removal: All invasive plant biomass, including trunks, branches, leaves, fruits and seeds shall be disposed of offsite at a green waste recycling facility or other suitable location. Wood material shall be chipped directly into a container for off-site disposal (rather than piled on the ground). All other material shall be similarly hauled off-site. Invasive control treatments shall be conducted during years 1, 3, and 5 of the five-year restoration plan. This schedule is designed to provide effective control, while reducing costs relative to annual treatment; however, annual treatment can be implemented as resources allow. Follow-up treatments following year 5 will be necessary to prevent re-establishment of invasive plants, and should similarly be conducted as resources allow; however, treatments following the initial five-year period are not a requirement of the restoration plan.

Planting Plan: A planting plan shall be developed based on the conditions at the time and availability of native plants. Suitable species include, but are not limited to, coast live oak, ponderosa pine, silverleaf Manzanita, buck brush (*Ceanothus cuneatus* var. *cuneatus*), mock heather (*Ericameria ericoides*), sticky monkey flower (*Mimulus aurantiacus*), and yarrow (*Achillea millefolium*). To avoid causing genetic erosion, the native Sandhills plants installed at the restoration area shall be from genetic material (seeds or cuttings) derived from the Whispering Pines Sandhills site or the adjacent Sandhills sites mapped in the *Sandhills Conservation and Management Plan* (McGraw 2004). Native shrubs and trees can be installed on 8 foot to 12 foot centers; perennial herbs, if used, could be planted at higher density. The plantings should complement the existing vegetation, the condition of which will also influence the total number of plants to be planted.

Annual reports: Annual reports of plan implementation will be provided to the County of Santa Cruz Planning Department by January 31 the year following treatment (i.e. years 2, 4, and 6). Each annual report shall include the following:

- a. A description of the restoration treatments implemented during the year and to date;

- b. An assessment of the site conditions including invasive plant and native plant cover effectiveness of the restoration to date; and
- c. Recommended changes to the treatments based on the adaptive management process.

With the implementation of the above mitigations and purchase of Conservation Bank credits for each square foot of disturbance, the potential to significantly impact the biotic resources as a result of the proposed land division has been mitigated to a less than significant level.

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 2. <i>Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion:

The site contains Zayante Sandhills Habitat, a sensitive habitat, and there is therefore the potential for incidental take of the endangered Mount Hermon June beetle. See the response to Item D-1 above. Implementation of the mitigation measures Bio-1 through Bio-5 would reduce impacts to a less than significant level.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. <i>Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There are no mapped or designated federally protected wetlands on or adjacent to the project site. Therefore, no impacts would occur from project implementation.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. <i>Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed project does not involve any activities that would interfere

with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 5. Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion:

Zayante Sandhills Habitat

The project would not conflict with any local policies or ordinances. Although the Zayante Sandhills is a sensitive habitat, the project complies with the criteria for use of the Conservation Bank for mitigation (e.g. no more than 15,000 square feet of disturbance area and location within the IPHCP area).

Oak Woodland

The property supports several oak trees, including three 28" diameter at breast height (D.B.H.) oaks located towards the front of the property, an 18" D.B.H. twin oak, and a 32" D.B.H. twin oak. Oak trees are protected by the County's sensitive habitat ordinance and also by the State of California's Oak Woodland Conservation Act of 2001 when 10% of the canopy is oak trees. No trees are proposed for removal as a part of the project, therefore the following mitigations focus on the retention and protection of the existing trees.

Mitigation Measures

BIO-6: Prior to construction, the property owner shall submit an arborist report with tree protection recommendations. Those recommendations shall be shown on the project plans. The same arborist shall also provide a plan review letter evaluating whether or not the recommendations are properly reflected on the project plans. Prior to ground disturbance, the recommended tree protection measures shall be installed.

BIO-7: As a part of the Declaration of Biotic Restriction, the oak trees will be identified as being protected in perpetuity. Any tree removals necessary for safety reasons shall be removed as a part of a Significant Tree removal permit.

Impacts from project implementation would be less than significant with mitigation incorporated.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

conservation plan?

Discussion: The proposed project would not conflict with the provisions of the adopted IPHCP (Interim Programmatic Habitat Conservation Plan) for the Sandhills habitat or any other approved local, regional, or state habitat conservation plan (see discussion under D-1). Therefore, no impact would occur.

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 7. Produce nighttime lighting that would substantially illuminate wildlife habitats? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion:

Zayante Sandhills Habitat

The development area is within Sandhills Habitat, a habitat which supports federally and state protected Mount Herman June Beetle. The Mount Herman June Beetle could be adversely affected by a new or additional source of light that is not adequately deflected or minimized. The following mitigation would reduce any potential impact to a less than significant level:

Mitigation Measures

BIO-8: Permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security).

With implementation of mitigation measure Bio-8, the impact of any nighttime lighting resulting from the project would be less than significant.

E. CULTURAL RESOURCES

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The existing structure(s) on the property is/are not designated as a historic resource on any federal, state or local inventory. In addition, according to the Archeological Records Search and Survey report prepared by Mathew Armstrong, M.A. with Pacific Legacy, May 16, 2008 (Attachment 5), there is no evidence of historic resources. As a result, no impacts to historical resources would occur from project implementation.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Cause a substantial adverse change in the significance of an archaeological | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

resource pursuant to CEQA Guidelines Section 15064.5?

Discussion: According to the Archeological Records Search and Survey report prepared by Mathew Armstrong, M.A. with Pacific Legacy, May 16, 2008 (Attachment 5), there is no evidence of pre-historic cultural resources. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if archeological resources are uncovered during construction, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

Impacts are expected to be less than significant.

3. *Disturb any human remains, including those interred outside of formal cemeteries?*

Discussion: Impacts are expected to be less than significant. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

4. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Discussion: No unique paleontological resources or unique geologic features are known to occur in the vicinity of the proposed project. No impacts are anticipated.

F. GEOLOGY AND SOILS

Would the project:

1. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- A. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a*

known fault? Refer to Division of Mines and Geology Special Publication 42.

- | | | | | | |
|----|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| B. | Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. | Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. | Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion (A through D): The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). However, the project site is located seven miles southwest of the San Andreas fault zone, and approximately six miles northeast of the Zayante-Vergeles fault zone. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. Consequently, large earthquakes can be expected in the future. The October 17, 1989 Loma Prieta earthquake (magnitude 7.1) was the second largest earthquake in central California history.

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a county or state mapped fault zone. A geotechnical investigation for the proposed project was performed by Adrian Garner of CMAG Engineering, Inc. (Attachment 6). The report concluded that, the soils that underlie the site are very loose and moderately compressible silty sands and poorly graded sands with silt in varied in color, moisture content, and density. To minimize the potential for differential settlement, the consulting geotechnical engineer recommends overexcavation and recompaction of the surface layer. While the near-surface soils exhibit high erosion potential, the project conditions of approval require all future construction to adhere to industry best management practices for erosion control during construction.

The geotechnical report did not identify landslides, lateral spreading, or liquefaction as areas of concern based on silty sand and sandy soils found on the site. Additionally, groundwater was not encountered during the field exploration and the topography is relatively flat. The geotechnical report did not identify fault zones, fault traces, or landslides on or around the subject parcel. The report provides recommendations for grading and foundation design and the applicant would be required to submit an update to this report that reflects the requirements of the most current California Building Code, prior to any future building permit issuance. Final building foundations and grading plans must comply with the most

current California Building Code to resist seismic shaking and avoid structural collapse and shall be reviewed and approved by Environmental Planning staff prior to parcel map recordation.

The topography of the site is relatively flat. Surrounding land is also primarily flat; therefore the potential for significant impacts due to erosion on the site is low. Additionally landslides are not an area of concern for the proposed development.

Implementation of the additional conditions included in the review letter prepared by Environmental Planning staff (Attachment 7) will serve to further reduce the potential risk of seismic shaking.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. <i>Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The geotechnical report cited above (see Discussion under F-1) did not identify a significant potential for damage caused by any of these hazards.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. <i>Develop land with a slope exceeding 30%?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The subject parcel does not have slopes exceeding 30%.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. <i>Result in substantial soil erosion or the loss of topsoil?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Some potential for erosion exists during the construction phase of the project, however, this potential is minimal because of the relatively flat project site and standard erosion controls are a required condition of the project. Prior to approval of a grading or building permit, the project must have an approved Erosion Control Plan (*Section 16.22.060 of the County Code*), which would specify detailed erosion and sedimentation control measures. The plan would include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion. Impacts from soil erosion or loss of topsoil would be considered less than significant.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. <i>Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There is no indication that the development site is subject to substantial risk

caused by expansive soils. Therefore, no impact is anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. <i>Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: No septic systems are proposed. The project would connect to the Santa Cruz County Sanitation District, and the applicant would be required to pay standard sewer connection and service fees that fund sanitation improvements within the district as a Condition of Approval for the project.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. <i>Result in coastal cliff erosion?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located in the vicinity of a coastal cliff or bluff; and therefore, would not contribute to coastal cliff erosion. No impact is anticipated.

G. GREENHOUSE GAS EMISSIONS

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. <i>Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed project, like all development, would be responsible for an incremental increase in green house gas emissions by usage of fossil fuels during the site grading and construction. Santa Cruz County has recently adopted a Climate Action Strategy (CAS) intended to establish specific emission reduction goals and necessary actions to reduce greenhouse gas levels to pre-1990 levels as required under AB 32 legislation. The strategy intends to reduce greenhouse gas emissions and energy consumption by implementing measures such as reducing vehicle miles traveled through the County and regional long range planning efforts and increasing energy efficiency in new and existing buildings and facilities. All project construction equipment would be required to comply with the Regional Air Quality Control Board emissions requirements for construction equipment. As a result, impacts associated with the temporary increase in green house gas emissions are expected to be less than significant.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. <i>Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: See the discussion under G-1 above. No significant impacts are anticipated.

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed project would not create a significant hazard to the public or the environment. No routine transport or disposal of hazardous materials is proposed. However, during construction, fuel would be used at the project site. Best management practices would be used to ensure that no impacts would occur. Impacts are expected to be less than significant.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Please see discussion under H-1 above. Project impacts would be considered less than significant.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: No school is located within one-quarter mile of a school. Brooknoll Elementary is located approximately 1.8 miles to the south of the project site. Although fueling of equipment is likely to occur within the staging area, best management practices would be implemented. No impacts are anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site is not included on the June 4, 2015 list of hazardous sites in Santa Cruz County compiled pursuant to Government Code Section 65962.5. No impacts are anticipated from project implementation.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located within two miles of a public airport or public use airport. No impact is anticipated.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located in the vicinity of a private airstrip. No impact is anticipated.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not conflict with implementation of the County of Santa Cruz Local Hazard Mitigation Plan 2010-2015 (County of Santa Cruz, 2010). Therefore, no impacts to an adopted emergency response plan or evacuation Plan would occur from project implementation.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed project is located in a moderate Fire Hazard Area. However, the project design incorporates all applicable fire safety code requirements and includes fire protection devices as required by the local fire agency. Impacts would be less than significant.

I. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project would not discharge runoff either directly or indirectly into a public or private water supply. However, runoff from this project may contain small

amounts of chemicals and other household contaminants. No commercial or industrial activities are proposed that would contribute contaminants. Potential siltation from the proposed project would be addressed through implementation of erosion control best management practices (BMPs). No water quality standards or waste discharge requirements would be violated. Impacts would be less than significant.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <p>2. <i>Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</i></p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project would obtain water from San Lorenzo Valley Water District and would not rely on private well water. Although the project would incrementally increase water demand, San Lorenzo Water District has indicated that adequate supplies are available to serve the project (Attachment 8).

Although the proposed project would be located in a mapped groundwater recharge area, the proposal would be consistent with General Plan policies 5.8.2 (*Land Division and Density Requirements in Primary Groundwater Recharge Areas*) in that the project site is located within the urban services line; 5.8.3 (*Uses in Primary Groundwater Recharge Areas*), and 5.8.4 (*Drainage Design in Primary Groundwater Recharge Areas*). The project would also be consistent with Section 7.79.110 of the County Code (*New Development and Redevelopment*). The code states, "All responsible parties shall mitigate impacts due to development and implement Best Management Practices (BMPs) per the County Design Criteria adopted by the County of Santa Cruz and Chapters 16.20 and 16.22 SCCC to control the volume, runoff rate, and potential pollutant load of stormwater runoff from new development and redevelopment projects to minimize the generation, transport, and discharge of pollutants, prevent runoff in excess of predevelopment conditions, and maintain predevelopment groundwater recharge." No adverse impact would occur to groundwater recharge with project implementation.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <p>3. <i>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</i></p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located near any watercourses, and would not alter the existing overall drainage pattern of the site. Department of Public Works Drainage Section staff and the City of Scotts Valley Department of Public Works have reviewed and approved the proposed drainage plan. No impact would occur from project implementation (Attachment 9).

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. <i>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding, on- or off-site?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located near any watercourses, and would not alter the existing overall drainage pattern of the site. Department of Public Works Drainage Section staff and the City of Scotts Valley Department of Public Works have reviewed and approved the proposed drainage plan (Attachment 9). Impacts from project construction would be less than significant.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 5. <i>Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Drainage Calculations prepared by Robert L. DeWitt, dated January 8, 2015, have been reviewed for potential drainage impacts and accepted by the County Department of Public Works (DPW) Drainage Section staff as well as the reviewer for the City of Scotts Valley, Joel Ricca of Bowman and Williams, Consulting Civil Engineers and Land Surveyors (Attachment 9). The calculations, which are based on a conservative assumption that development will be maximized on the lots, show that the two-year storm can be accommodated on site with small gravel beds to facilitate infiltration. The runoff rate from the property would be controlled by first retaining water on-site through retention volumes. If those volumes are exceeded then the runoff would be directed down the new right-of-way to the drainage facilities located in the Lockwood Lane right-of-way. Mr. Ricca has determined that existing storm water facilities are adequate to handle the increase in drainage associated with the project. Refer to response I-1 for discussion of urban contaminants and/or other polluting runoff. Impacts would be considered less than significant.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 6. <i>Otherwise substantially degrade water</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

quality?

Discussion: Please see discussion under I-1 above. Impacts would be considered less than significant with the implementation of BMPs.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated May 16, 2012, no housing or any other development lies within a 100-year flood hazard area.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated May 16, 2012, no portion of the project site lies within a 100-year flood hazard area. Therefore, the proposed project would not impede or redirect flood flows. No impact would occur.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not increase the risk of flooding and would not lead to the failure of a levee or dam. No impact would occur.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 10. Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There are two primary types of tsunami vulnerability in Santa Cruz County. The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2010).

The more vulnerable risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz

County would arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher casualties than if it were a distant tsunami (County of Santa Cruz 2010).

The project site is located approximately 5.6 miles inland at, approximately 600 feet of elevation, a distance and elevation beyond the effects of a tsunami. In addition, no impact from a seiche or mudflow is anticipated. No impact would occur.

J. LAND USE AND PLANNING

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. <i>Physically divide an established community?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not include any element that would physically divide an established community. No impact would occur.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. <i>Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. No impacts are anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. <i>Conflict with any applicable habitat conservation plan or natural community conservation plan?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: As mitigated, the proposed project would be consistent with the IPHCP. See the response to D-1, D-5, and D-7.

K. MINERAL RESOURCES

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. <i>Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The site does not contain any known mineral resources that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

2. *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

Discussion: The project site is zoned R-1-10 (Single-family residential, 10,000 s.f. minimum parcel size), which is not an Extractive Use Zone (M-3) nor does it have a Land Use Designation with a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

L. NOISE

Would the project result in:

1. *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Discussion:

Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 Leq during the day and 45 Leq during the nighttime. Impulsive noise levels shall not exceed 65 db during the day or 60 db at night. The subject parcel is surrounded by parcels developed with single-family dwellings and is not located adjacent to a heavily traveled roadway or stationary noise source; therefore, the proposed creation of two additional parcels would not have the potential to expose people to noise levels in excess of General Plan standards.

2. *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Discussion: The use of construction equipment would potentially generate vibration in the project area. The two nearest residential properties are located at approximately about 20 feet to the northeast and the southwest of the project site on Lockwood Lane. Due to this distance, none of the area residences would experience significant groundborne vibration or groundborne noise levels during construction activities associated with the

proposed project. Therefore, Impacts would be considered less than significant

3. *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Discussion: The proposed project would not result in a permanent increase in the ambient noise level. The main source of ambient noise in the project area is traffic noise along Lockwood Lane. However, no substantial increase in traffic trips is anticipated as a result of the proposed project. Impacts are expected to be less than significant.

4. *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Discussion: See discussion under L-1 above. Noise generated during project construction would increase the ambient noise levels in adjacent areas. Construction would be temporary, however, and given the limited duration of this impact it is considered to be less than significant with the incorporation of mitigation measures.

5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

Discussion: The proposed project is not within two miles of a public airport. Therefore, the proposed project would not expose people residing or working in the project area. No impact is anticipated.

6. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

Discussion: The proposed project is not within two miles of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area. No impact is anticipated.

M. POPULATION AND HOUSING

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not induce substantial population growth in an area because the project does not propose any physical or regulatory change that would remove a restriction to or encourage population growth in an area including, but limited to the following: new or extended infrastructure or public facilities; new commercial or industrial facilities; large-scale residential development; accelerated conversion of homes to commercial or multi-family use; or regulatory changes including General Plan amendments, specific plan amendments, zone reclassifications, sewer or water annexations; or LAFCO annexation actions. Development is based upon the General Plan and zoning designations for the parcel which is located within the urban services area. No impact would occur.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not displace any existing housing. One existing house would be demolished and, eventually, three houses would be built. No impact would occur.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not displace a substantial number of people since the project is intended to create three additional residential parcels. No impact would occur.

N. PUBLIC SERVICES

Would the project:

1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

objectives for any of the public services:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Other public facilities; including the maintenance of roads? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion (a through e): While the project represents an incremental contribution to the need for services, the increase would be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency or California Department of Forestry, as applicable, and school, park, and transportation fees to be paid by the applicant would be used to offset the incremental increase in demand for school and recreational facilities and public roads. Impacts would be considered less than significant.

O. RECREATION

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed project would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities. Impacts would be considered less than significant.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not propose the expansion or construction of additional recreational facilities. No impact would occur.

P. TRANSPORTATION/TRAFFIC

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <p>1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project would create a small incremental increase in traffic on nearby roads and intersections. However, given the small number of new trips created by the project—three new trips per morning and afternoon peak, this increase would be less than significant. Further, the increase would not cause the Level of Service at any nearby intersection to drop below Level of Service D, consistent with General Plan Policy 3.12.1.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <p>2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: In 2000, at the request of the Santa Cruz County Regional Transportation Commission (SCCRTC), the County of Santa Cruz and other local jurisdictions exercised the option to be exempt from preparation and implementation of a Congestion Management Plan (CMP) per Assembly Bill 2419. As a result, the County of Santa Cruz no longer has a Congestion Management Agency or CMP. The CMP statutes were initially established to create a tool for managing and reducing congestion; however, revisions to those statutes progressively eroded the effectiveness of the CMP. There is also duplication between the CMP and other transportation documents such as the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP). In addition, the goals of the CMP may be carried out through the Regional Transportation Improvement Program and the Regional Transportation Plan. Any functions of the CMP which are useful, desirable and do not already exist in other documents may be incorporated into those documents.

The proposed project would not conflict with either the goals and/or policies of the RTP or with monitoring the delivery of state and federally-funded projects outlined in the RTIP. No impact would occur.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

Discussion: No change in air traffic patterns would result from project implementation. Therefore, no impact is anticipated.

4. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Discussion: The proposed development would result in three additional parcels and the construction of a new right-of-way to serve the parcels in a residential neighborhood. The project would take access from the new right-of-way which is accessed from Lockwood Lane, a road within the City of Scotts Valley's jurisdiction. No impacts would occur with project implementation.

5. *Result in inadequate emergency access?*

Discussion: The project's road access has been reviewed and approved by the Scotts Valley Fire Protection District (Attachment 9).

6. *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

Discussion: The project would include a 24-foot wide right-of-way which requires a Roadside / Roadway Exception. The County's Design Criteria's minimum urban local street requires a 40-foot wide right-of-way which includes area for parking, landscaping and a sidewalk. In this case, because the roadway serves just three-houses, the reduced right-of-way would be adequate to provide safe ingress and egress for vehicles and pedestrians. As noted above, the Scotts Valley Fire Protection District reviewed and approved the proposed design. In addition, the City of Scotts Valley Department of Public Works reviewed and accepted the proposed design. The project would not conflict with any adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities.

Q. UTILITIES AND SERVICE SYSTEMS

Would the project:

1. *Exceed wastewater treatment requirements of the applicable Regional*

Water Quality Control Board?

Discussion: The proposed project's wastewater flows would be treated by the City of Scotts Valley (Attachment 8). Therefore, the proposed project would not violate any wastewater treatment standards. No significant impacts would occur from project implementation.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. <i>Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project would connect to an existing municipal water supply. San Lorenzo Water District has determined that adequate supplies are available to serve the project (Attachment 8). No impact would occur from project implementation.

Municipal sewer service is available to serve the project, as reflected in the attached letter from the the City of Scotts Valley Public Works Department (Attachment 8). No impact would occur from project implementation.

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. <i>Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Drainage analysis of the project provided by Robert L. Dewitt, January 8, 2015 concluded that the existing storm water drainage facilities are adequate to serve the project. Department of Public Works Drainage staff and Joel Ricca of Bowman and Williams for the City of Scotts Valley have reviewed the drainage information and have determined that downstream storm facilities are adequate to handle the increase in drainage associated with the project (Attachment 9). Therefore, no additional drainage facilities would be required for the proposed project. No impacts are expected to occur from the proposed project.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 4. <i>Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The San Lorenzo Valley Water District has indicated that adequate water supplies are available to serve the project and has issued a will-serve letter for the proposed project, subject to the payment of fees and charges in effect at the time of service (Attachment 8). The development would also be subject to the water conservation

requirements. Therefore, existing water supplies would be sufficient to serve the proposed project, and no new entitlements or expanded entitlements would be required. Impacts would be less than significant.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. <i>Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The City of Scotts Valley Department of Public Works has indicated that adequate capacity is available to serve the project and has issued a will-serve letter for the proposed project, subject to the payment of fees and charges in effect at the time of service (Attachment 8). Therefore, existing wastewater treatment capacity would be sufficient to serve the proposed project. Please see discussion under Q-2 above. No impact would occur from project implementation.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 6. <i>Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Due to the small incremental increase in solid waste generation by the proposed project during demolition, construction and operations, the impact would not be significant.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. <i>Comply with federal, state, and local statutes and regulations related to solid waste?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project would comply with all federal, state, and local statutes and regulations related to solid waste disposal. No impact would occur.

R. MANDATORY FINDINGS OF SIGNIFICANCE

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. <i>Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal community, reduce the number or restrict the range of a rare or</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Discussion: The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in Section III (A through Q) of this Initial Study. Resources that have been evaluated as significant would be potentially impacted by the project, particularly protected species associated with Zayante Sandhills and oak woodland. However, mitigations have been included that reduces these effects to a level below significance. These mitigations include: the purchase of credits from the Zayante Sandhills Conservation Bank (Bank); a disturbance limitation of 15,000 square feet; the implementation of the Restoration Plan; monitoring during construction by a qualified monitor; the recordation of Declaration of Biotic Restriction; and a Development Envelope would be required to be reviewed and approved by Environmental Planning staff to ensure that the future construction will avoid tree removal and habitat impact. As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

2. *Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*
-

Discussion: In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, it has been determined that there is no substantial evidence that there are significant cumulative effects associated with this project. Mitigations have been included to insure that impacts to the Zayante Sandhills and oak woodland habitats will not be significant. Those mitigations include limiting the disturbance area to 15,000 square feet; the recordation of a Declaration of Biotic Restriction; and the establishment of a development envelope to avoid tree removals and habitat impacts. Together, mitigations Bio-1 through Bio-8 will insure that the impacts of the project will not be cumulatively considerable. Therefore, this project has been determined not to meet this Mandatory

Finding of Significance.

3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Discussion: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III. As a result of this evaluation, there were determined to be no potentially significant effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

California Department of Conservation. 1980

Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

County of Santa Cruz, 2013

County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2010

County of Santa Cruz Local Hazard Mitigation Plan 2010-2015. Prepared by the County of Santa Cruz Office of Emergency Services.

County of Santa Cruz, 1994

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

MBUAPCD, 2008

Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

MBUAPCD, 2013a

Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment_Status_January_2013_2.pdf

MBUAPCD, 2013b

Triennial Plan Revision 2009-2011. Monterey Bay Air Pollution Control District. Adopted April 17, 2013.



This page intentionally left blank.

Attachment 1

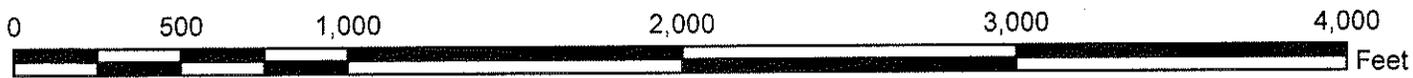
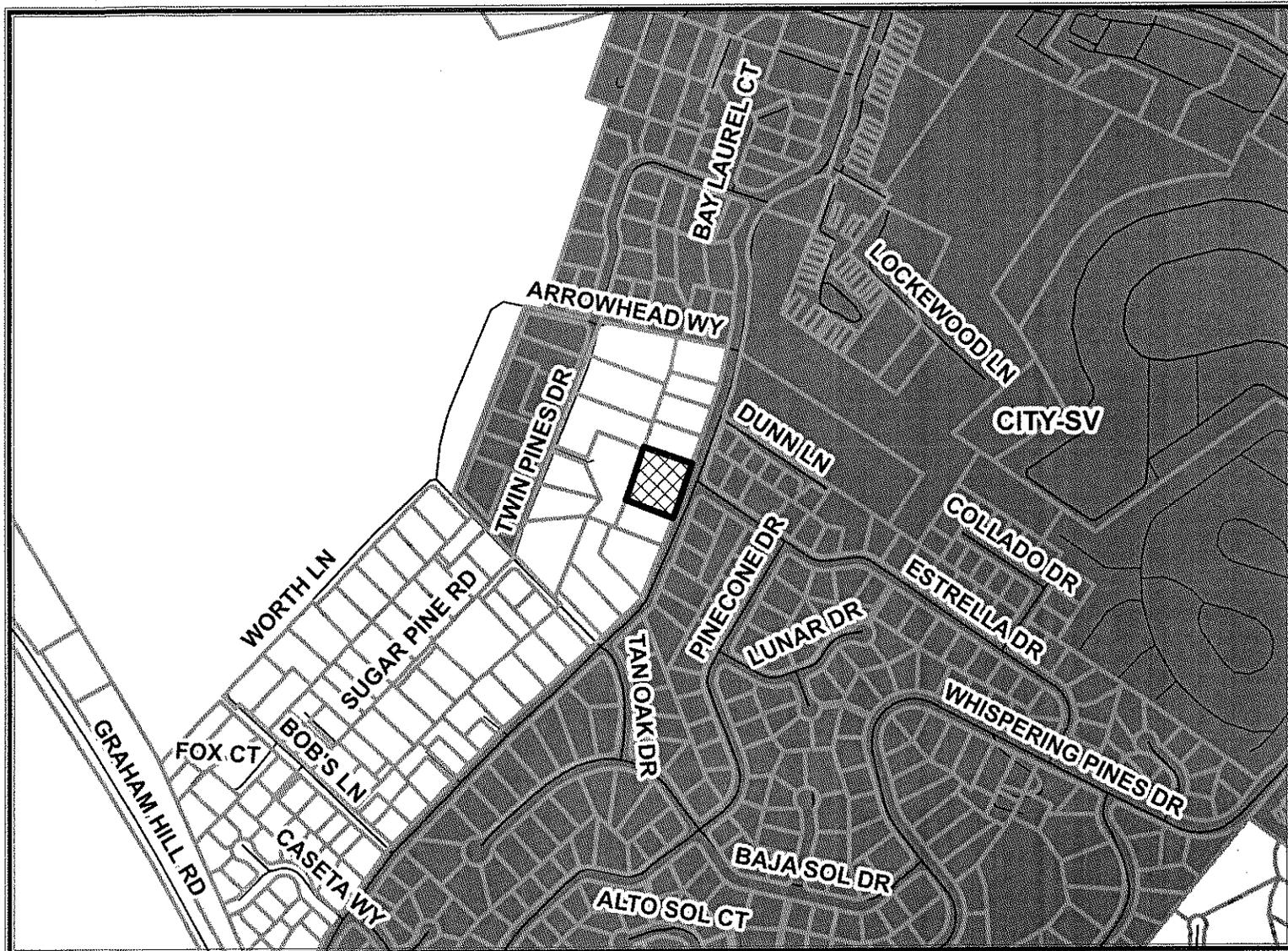
Mitigation Monitoring and Reporting Program



This page intentionally left blank.



Location Map



LEGEND

-  APN: 067-041-14
-  Assessors Parcels
-  Street
-  CITY OF SCOTTS VALLEY

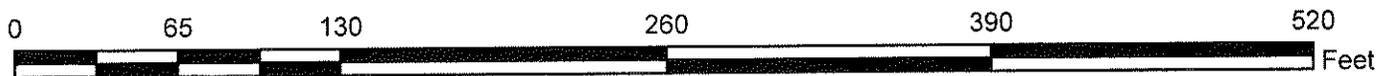
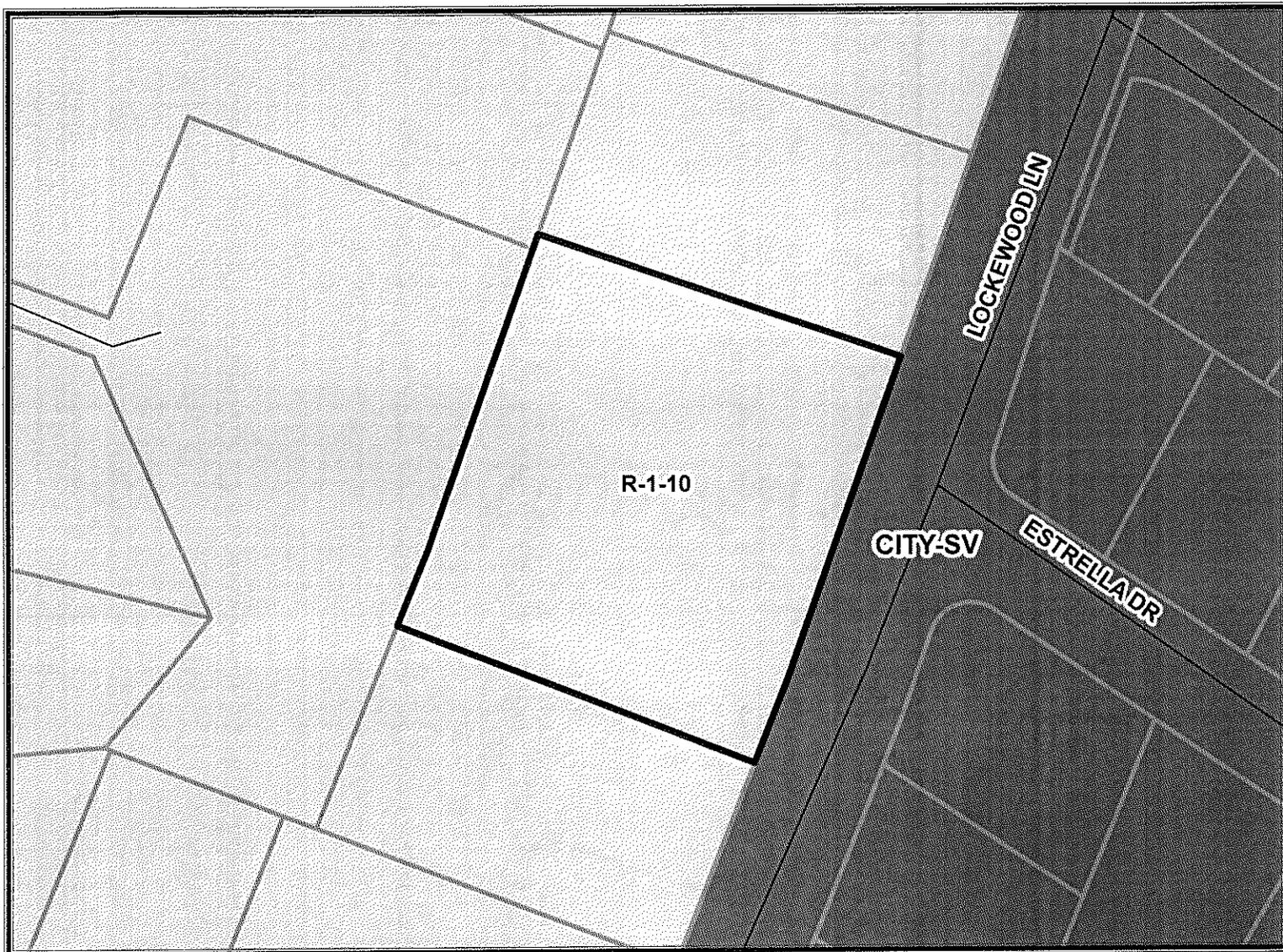


Map Created by
 County of Santa Cruz
 Planning Department
 November 2014

EXHIBIT F
ATTACHMENT



Zoning Map



LEGEND

-  APN: 067-041-14
-  Assessors Parcels
-  Street
-  CITY OF SCOTTS VALLEY
-  RESIDENTIAL-SINGLE FAMILY

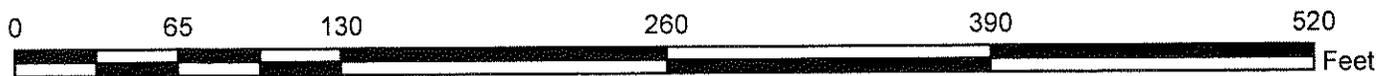
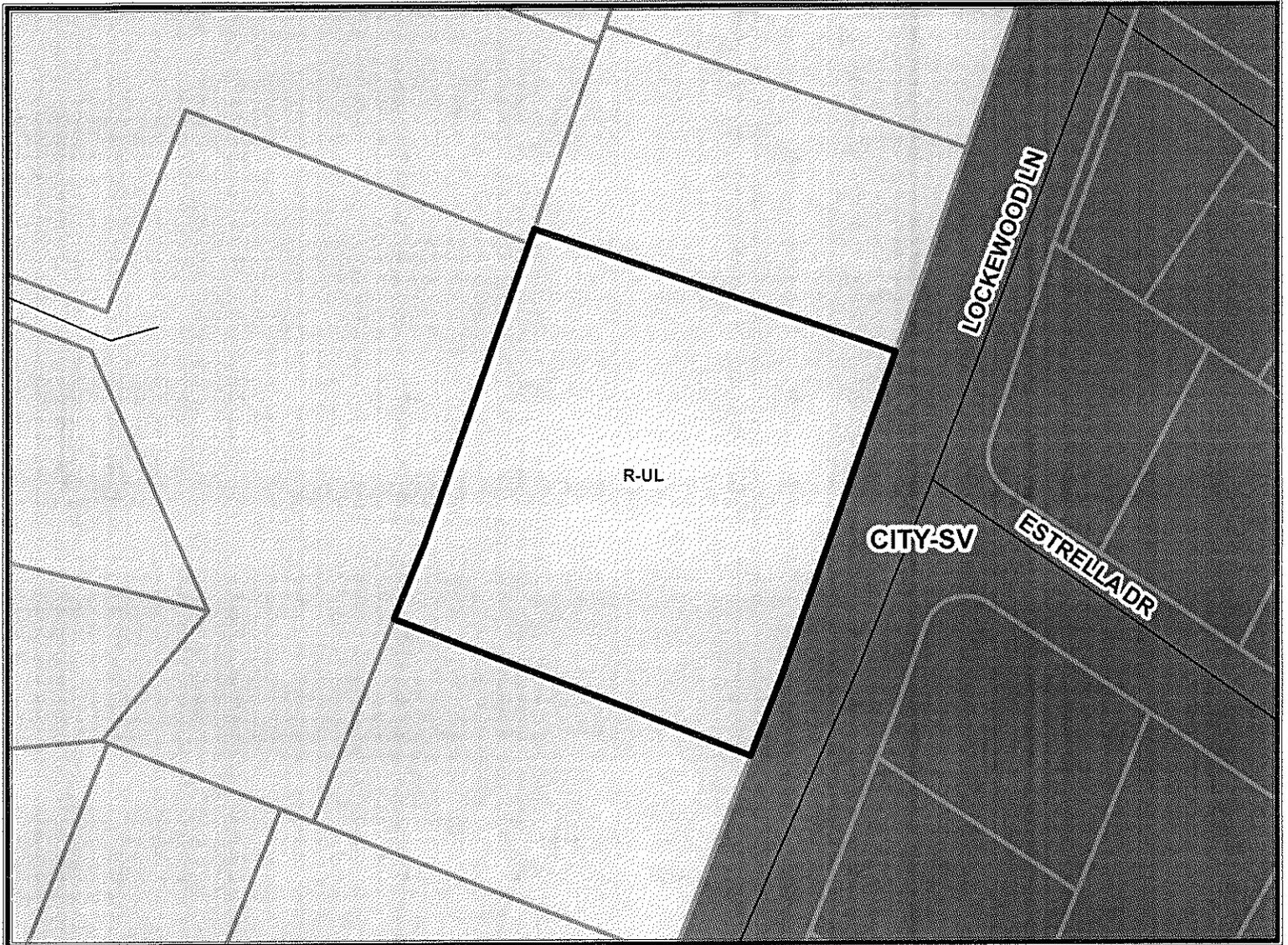


Map Created by
 County of Santa Cruz
 Planning Department
 November 2014

EXHIBIT F
 ATTACHMENT 1



General Plan Designation Map



LEGEND

- APN: 067-041-14
- Assessors Parcels
- Street
- CITY OF SCOTTS VALLEY
- Residential - Urban Low Density



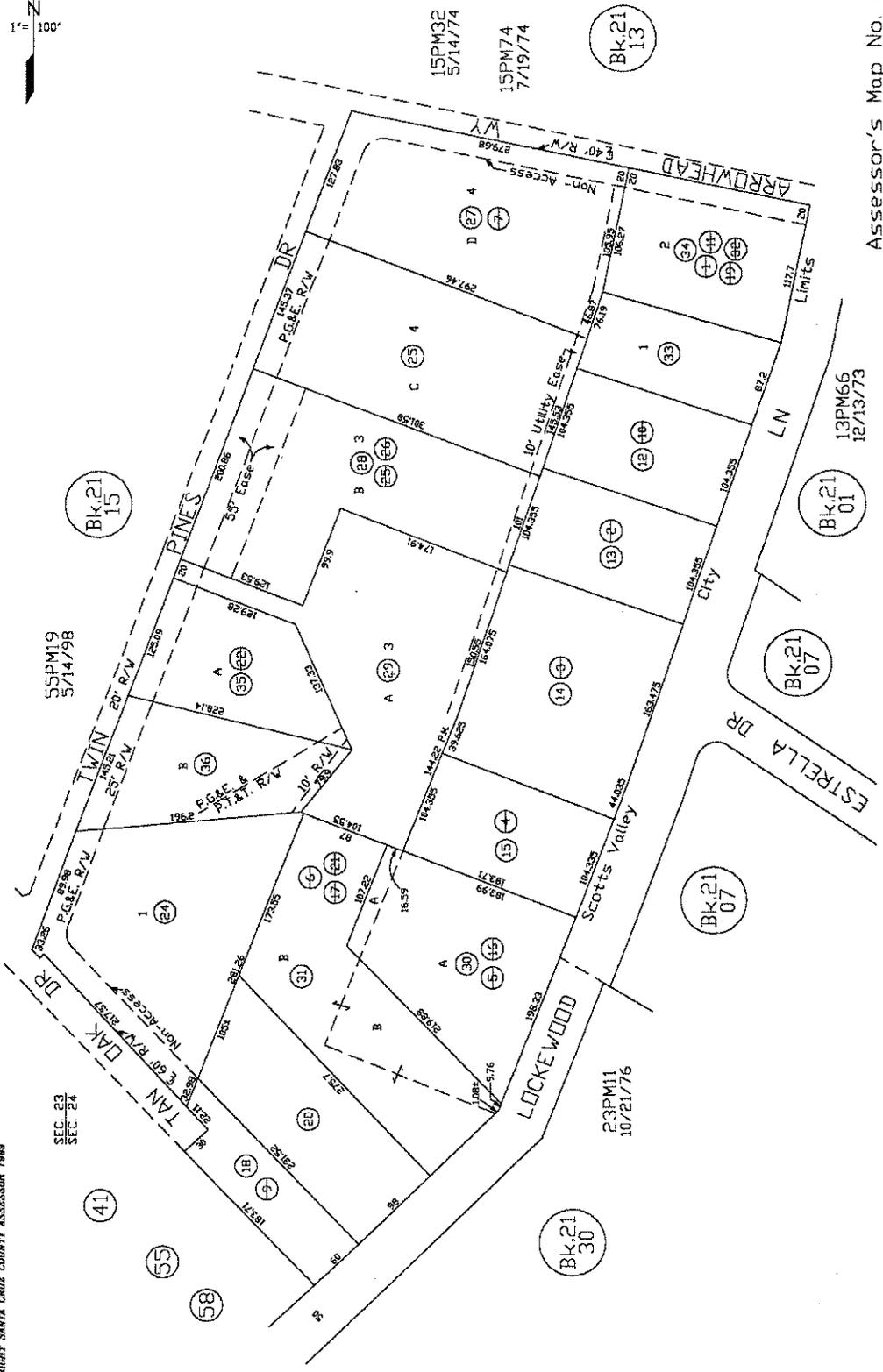
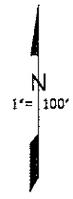
Map Created by
 County of Santa Cruz
 Planning Department
 November 2014

FOR TAX PURPOSES ONLY
 THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER ISSUES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.
 © COPYRIGHT SANTA CRUZ COUNTY ASSESSOR 1988

POR. SAN AUGUSTINE RANCHO
 SECS. 23 & 24, T.10S., R.2W., M.D.B. & M.

Tax Area Code
 94-016

67-04



Assessor's Map No. 67-04
 County of Santa Cruz, Calif.
 July 1999

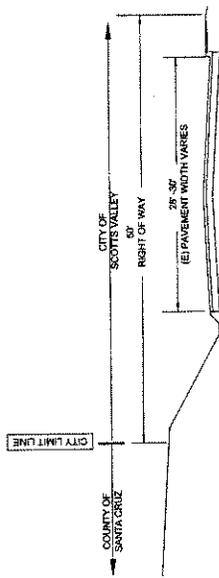
Note - Assessor's Parcel & Block
 Numbers Shown in Circles.

Electronically redrawn 7/14/99 KSA
 Rev. 07/01 non changed page refs.



GENERAL NOTES:

1. Boundary information compiled from survey by Paul Hanagan, PLS
2. Boundary survey to be completed for the Parcel Map following approval of the Tentative Map.
3. Topographic survey by Paul Hanagan Land Surveying, Job No. 06003 dated 03/13/2006
4. Owner and subdivider:
Rick Hoehler
325 Canham Rd.
Scotts Valley, CA 95068 Ph. 831-439-6690 818-0819



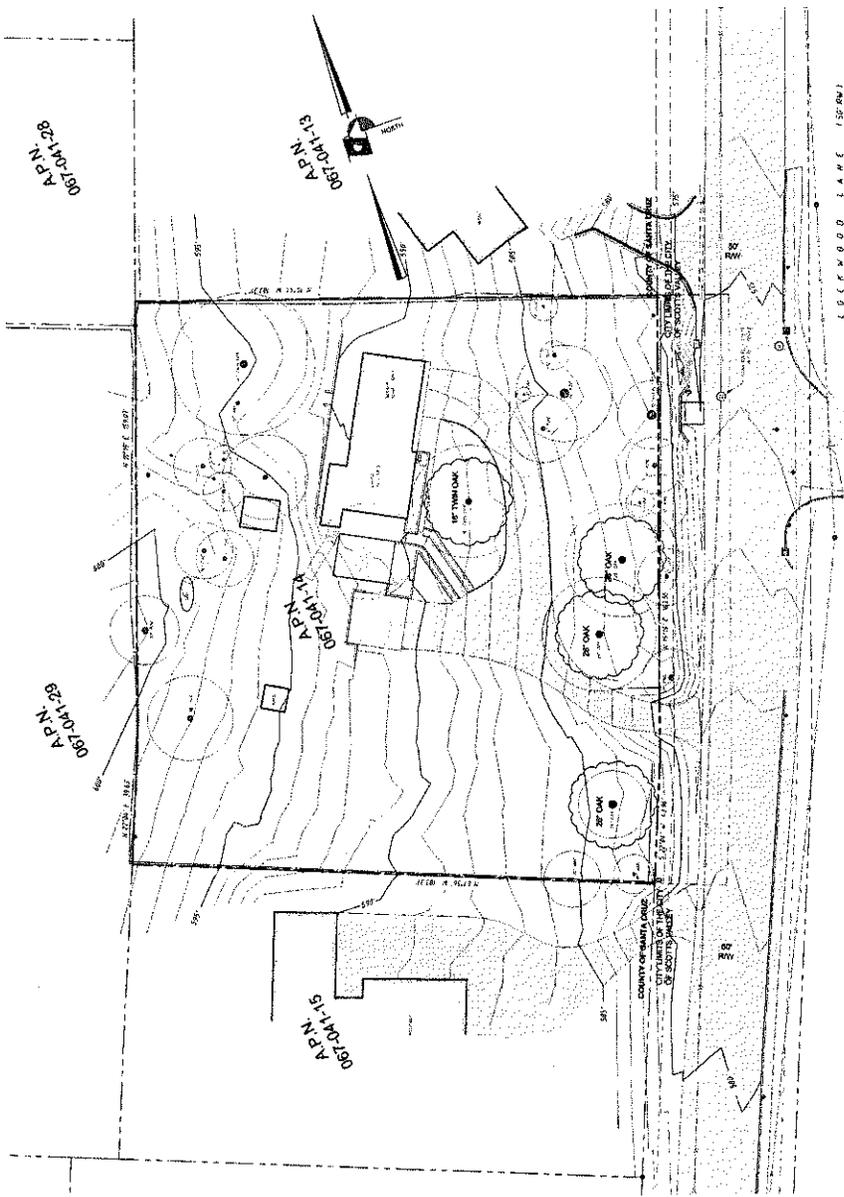
SHEET INDEX:

- P-1 EXISTING SITE CONDITIONS
- P-2 TENTATIVE PARCEL MAP
- P-3 LOCKWOOD LANE IMPROVEMENTS
- P-4 ANALYSIS OF DISTURBED AREAS



Consultation between the parties to this agreement shall be conducted in good faith and good will. The contractor shall be responsible for all improvements, including but not limited to, utility relocation, tree removal, and site preparation. The contractor shall be responsible for all improvements, including but not limited to, utility relocation, tree removal, and site preparation. The contractor shall be responsible for all improvements, including but not limited to, utility relocation, tree removal, and site preparation.

UNAUTHORIZED CHANGES AND USES:
This map is prepared for the specific project and site shown. It is not to be used for any other purpose without the written consent of the engineer. Any changes to the map must be approved by the engineer.



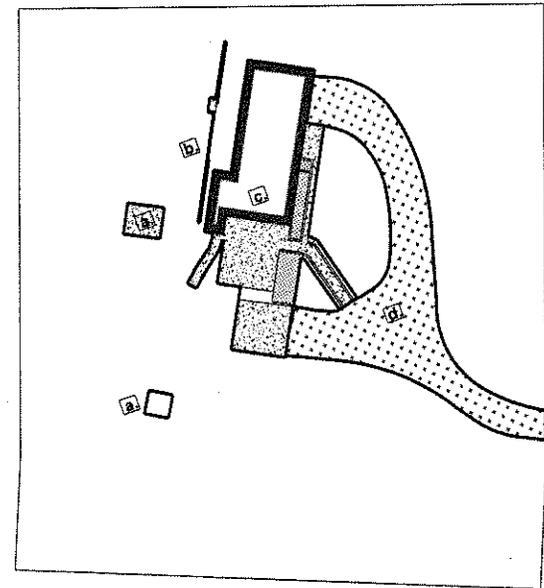
ROBERT L. DEWITT
DATE: 6-12-15



MINOR LAND DIVISION
PREPARED AT THE REQUEST OF
RICK HOEHLER
A.P.N. 067-041-14
SCOTTS VALLEY, CA.

Robert L. Dewitt & Associates, Inc.
Civil Engineers & Land Surveyors
100 Ocean Street, Suite 1
Scotts Valley, California 95068
(925) 428-2224 FAX

DATE: 6-12-15
DRAWN: RD
CHECKED: RD
PROJECT: 067-041-14
SHEET: P1 OF 4



**FIG. 1
EXISTING**

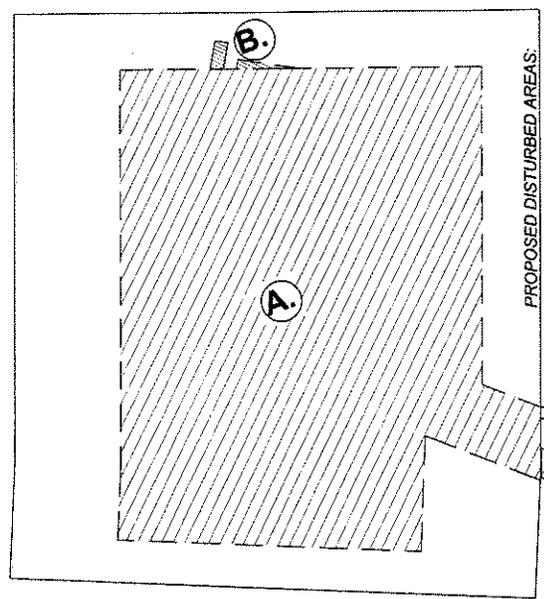
DISTURBED AREAS ENVELOPES:

a	213 S.F.
b	88 S.F.
c	1,068 S.F.
d	3,115 S.F.
TOTAL	5,284 S.F.

DISTURBANCE AREAS NOTES:

1. THE PARCEL IS WITHIN THE SAND HILLS BIOTIC AREA.
2. THE DEVELOPMENT AREA FOR THE SUBDIVISION IS LIMITED TO AN INCREMENTAL INCREASE OF DISTURBED AREAS OF NO MORE THAN 15,000 S.F. MORE THAN THE EXISTING DISTURBED AREAS.
3. WITHIN THE DEVELOPMENT ENVELOPE SHOWN, THE SUM OF THE ADDITIONAL DISTURBED AREAS IS CALCULATED TO BE 14,790 S.F. THIS IS LESS THAN THE 15,000 S.F. ADDITIONAL ALLOWED.
4. FINAL BUILDING PERMIT PLAN SET MAY VARY THE SITE PLAN LAYOUT SO LONG AS THE 15,000 S.F. LIMITATION IS NOT EXCEEDED. UPDATED PROPOSED DISTURBANCE AREA CALCULATIONS ARE TO BE SUBMITTED WITH THE BUILDING PERMIT APPLICATION.

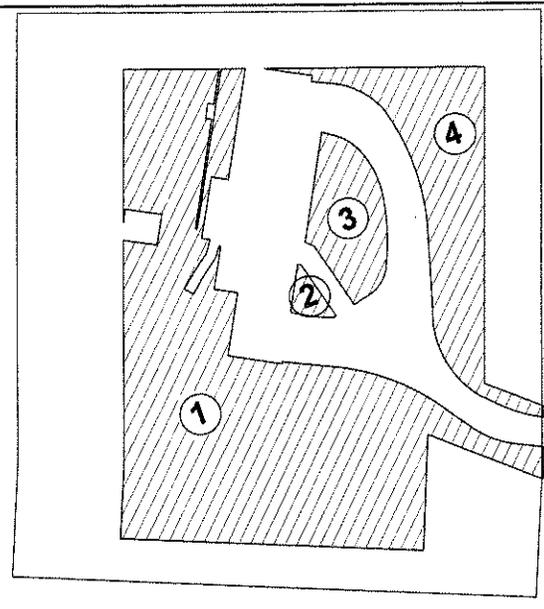
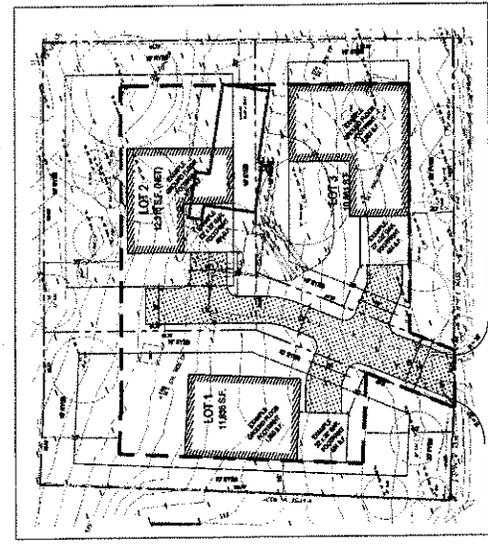
(NOTE: EXAMPLE SITE PLAN LAYOUT IS SCHEMATIC ONLY AND SUBJECT TO CHANGE WHEN BUILDING PERMIT APPLICATION IS SUBMITTED)



**FIG. 2
PROPOSED**

PROPOSED DISTURBED AREAS:

A	21,300 S.F.
B	42 S.F.
C	202 S.F.
TOTAL	21,544 S.F.



**FIG. 3
ADDITIONAL**

SUMMARY OF ADDITIONAL DISTURBED AREAS:

1	19,300 S.F.
2	19 S.F.
3	1,818 S.F.
4	2,767 S.F.
5	288 S.F.
TOTAL	24,232 S.F.

MINOR LAND DIVISION
 PREPARED AT THE REQUEST OF
RICK HOCHLER
 A.P.N. 067-041-14
 SCOTTS VALLEY, CA

DATE: 6-12-15
 PROJECT #1008
 SHEET #4 OF 4

ROBERT L. DEWITT

1007 Ocean Street, Suite 1
 Santa Cruz, California 95060
 (408) 426-1811 FAX
 (408) 429-0224 FAX
 Robert L. DeWitt
 & Associates, Inc.
 Civil Engineers & Land Surveyors
 DESIGN: RD
 DRAWING: RD
 DATE: 06-12-15
 PROJECT: 1008
 SHEET: 004 OF 004
 ISSUED: 6-12-15

RECORDED AT REQUEST OF:
County of Santa Cruz

WHEN RECORDED MAIL TO:
Jessica Duktig
Santa Cruz County Planning
701 Ocean St.
Santa Cruz, CA 95060

(Space above this line for Recorder's use only)

DECLARATION OF RESTRICTION REGARDING SANDHILLS HABITAT

This declaration is made in the County of Santa Cruz, State of California, effective _____, 20____ by _____ owner(s) of real property described in Exhibit "A" attached hereto and incorporated herein by reference, also known as Assessor's Parcel Number(s) 067-041-14 (hereinafter "subject property"), who hereby declare(s) that all of the property described below shall be held, transferred, sold, and conveyed subject to the following restrictions and conditions, which are for the purpose of compliance with the County Code of the County of Santa Cruz, and which shall run with the title to the property and be binding on all parties having any right, title or interest in the property or any part thereof, their heirs, assigns, and any other transferees and successors and shall apply to each owner thereafter.

RECITALS

WHEREAS, Declarants have proposed to divide the subject parcel into three new parcels and construct a new right-of-way (hereafter referred to as the "project") as described in Exhibit B attached hereto and incorporated herein by reference;

WHEREAS, the Sensitive Habitat Protection Ordinance of the County of Santa Cruz (Chapter 16.32 of the County Code, hereinafter "the Ordinance") requires that any development approved by the County of Santa Cruz (hereinafter the "County") shall mitigate significant environmental impacts;

WHEREAS, the County has found that the portion(s) of the subject property are sensitive habitat as defined in Chapter 16.32 of the County Code in that the project is located within the Sandhills and Oak Woodland;

WHEREAS, Grantors have made application for a permit to develop on project site (hereinafter "said permit"), and such development, if inappropriately sited, designed or utilized could have a significant adverse impact in the sensitive habitat described above;

WHEREAS, The County has found that to issue an approval or permit consistent with said Sensitive Habitat Protection Ordinance the County must be assured that the development will be sited, designed and utilized so as to not significantly adversely impact the sensitive habitat;

WHEREAS, the County has found that the restrictions enumerated hereinafter will confine the development to a limited area, prevent expansion of the development, and otherwise constrain the development, and will thus adequately mitigate the adverse impacts set forth above; and

WHEREAS, it is intended that the restrictions contained herein shall be and shall continue to be, to the end of the term of said restrictions, enforceable restrictions within the meaning of Article XIII, Section 8 of the California Constitution and that said revisions shall thereby qualify as an enforceable restriction under the provisions of the California revenue and Taxation Code Section 402.1.

RESTRICTIONS

NOW THEREFORE, in consideration of the mutual benefits and covenants hereby acknowledged by the parties and the substantial public benefits for the protection of the sensitive habitat, Declarant(s) hereby declare(s) that they are subject to the following restrictions and conditions.

1. **USE OF PARCEL**. Development as defined in Chapter 16.32 of the County Code (including, without limitation, removal of trees and other vegetation, grading, paving, installation of structures such as signs, buildings, or other structures of similar impact) shall be subject to the following restrictions:
 - a. Total site disturbance shall not exceed that area identified on Exhibit 'B' for which conservation credits shall be purchased prior to approval of the building permit(s).
 - b. Total cumulative site disturbance shall not exceed 15,000 square feet¹
 - c. Ground disturbing activities (e.g. vegetation clearing, grading, digging etc.) shall be minimized during the growing season of the Ben Lomond spineflower and adult flight period of the Mount Hermon June Beetle (May 15-Aug15).
 - d. Removal of native Sandhills plant species shall be minimized. Revegetation of disturbed areas shall be with native Sandhills plant species that are locally derived, if possible.
 - e. Landscaping shall exclude the use of turf grass, weed matting, aggregate and mulch.
 - f. During construction, night lighting shall be minimized during the flight season of the Mount Hermon June Beetle (May 15-Aug 15).
 - g. During construction, areas that have been recently disturbed by the development project shall be covered every evening (during May15-Aug15) with tarps, landscape fabric or other similar material.
 - h. Permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).
 - i. Oak trees shall be protected during construction consistent with the recommendations of a professional arborist or landscape architect.

¹ Parcels that are allowed less than 15,000 square feet of site disturbance are thus restricted because of a residential land division, which resulted in the 15,000 square feet being divided between the newly created lots.

Last updated 7/16/09

- j. Oak tree removal shall only be allowed if a tree is diseased, dead, or poses a safety hazard as documented by a professional arborist. Tree removal shall be done under a Significant Tree Removal Permit.
2. **TERM**. This Declaration of Restrictions shall be in effect for a period beginning on the effective date stated above and continuing for the life of the development approved by said approval and/or permit, and so long as any development rights whatsoever remain or are claimed under said approval and/or permit.
3. **RECORDATION OF DOCUMENTS**. This Declaration of Restrictions shall be duly recorded on the Office of the Recorder for the County of Santa Cruz. In the event that under the terms and conditions of this document, or any subsequent mutual written agreement, these restrictions are terminated with respect to all or any part of the subject property, the County shall, upon written request, execute and record with the Recorder of the County of Santa Cruz any documents necessary to evidence such termination.
4. **SUCCESSORS IN INTEREST**. This declaration of Restrictions shall be appurtenant to the land described herein, for the term described herein, and all obligation hereby imposed shall be deemed to be covenants and restrictions running with the land, and shall bind any person having at any time any interest or estate in the subject property and as such shall be binding upon and inure to the benefit of all successors, transferees and assigns of the Declarants.
5. **CONSTRUCTION OF VALIDITY/SEVERABILITY**. If any provisions of these restrictions shall be held to be invalid, or for any reason become unenforceable no other provision shall be thereby affected or impaired, but rather shall be deemed severable.
6. **ENFORCEMENT OF DECLARATION**. Any conveyance, contract, or authorization (whether written or oral) by the Declarants or their successors on interest which would permit use of the subject property contrary to the term of this Declaration of Restrictions shall be deemed a breach of this Declaration. County or its successors may bring any action by administrative or judicial proceeding when County deems necessary or convenient to enforce this Declaration of Restrictions including, but not limited to, an action to enforce the Declaration. Grantors understand and agree that the enforcement proceedings provided in this paragraph are not exclusive and that County may pursue any appropriate legal and equitable remedies.

DECLARATION OF RESTRICTIONS

This Declaration shall run with the land and shall be binding upon the undersigned, any future owners, encumbrances, their successors, heirs or assignees. This document should be disclosed to the foregoing individuals. This Declaration may not be altered or removed from the records of the County Recorder without the prior consent of the Planning Director of the County of Santa Cruz.

IN WITNESS WHEREOF, Declarants have executed this Declaration of Restrictions on the _____ day of _____, 20_____.

Declarant

Declarant

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGEMENT OF GRANTOR(S)

State of California County of Santa Cruz

On _____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal)

Signature

EXHIBIT "A"

All that real property situated in the County of Santa Cruz, State of California,
conveyed from _____ to _____
by deed recorded on Document number _____ - _____, Santa Cruz County.
Official Records on _____, Assessor's Parcel No. _____

Exhibit "B"

Project includes

This form must be reviewed and approved by a County Planning Department staff person after notarization and prior to recordation.

Dated: _____

COUNTY OF SANTA CRUZ

By: _____

Planning Department Staff

**Restoration Plan for
504 Lockewood Lane, Santa Cruz County**



Prepared by

Jodi M. McGraw, Ph.D.
Jodi McGraw Consulting
PO Box 221 • Freedom, CA 95019 • (831)-768-6988
jodi@jodimcgrawconsulting.com
www.jodimcgrawconsulting.com

Prepared for

Rick Hochler
325 Canham Road
Scotts Valley, CA 95066

Submitted to

County of Santa Cruz Planning Department
701 Ocean Street
Santa Cruz, CA 95060

December 24, 2014

Contents

Contents	ii
1 Introduction	1
1.1 Background	1
1.2 Purpose	1
1.3 Plan Contents	1
2 Site Assessment	2
2.1 Location	2
2.2 Geology, Soil, and Topography	2
2.3 Existing Development	2
2.4 Vegetation and Native Plant Species	2
2.5 Exotic Plants	2
2.6 Special-Status Species	4
2.6.1 Rare and Endangered Plants	4
2.6.2 Rare Animals	5
3 Site Restoration	5
3.1 Opportunities and Challenges	5
3.2 Restoration Goal and Approach	5
3.3 Invasive Plant Control Treatments	6
3.4 Biomass Removal	6
3.5 Treatment Frequency	7
4 Monitoring and Adaptive Management	7
4.1 Monitoring	7
4.2 Adaptive Management	8
4.3 Reporting	8
5 Implementation	9
References	10

1 Introduction

1.1 Background

Rick Hochler is preparing to submit an application to the County of Santa Cruz to divide his 37,341-square-foot (0.86-acre) lot located at 504 Lockewood Lane (APN 067-041-14) into three new lots of 11,836 square feet (Lot 1), 14,618 square feet (Lot 2, including 24 foot-wide access corridor), and 10,861 square feet (Lot 3) (Figure 1). As requested by the County of Santa Cruz (County), Mr. Hochler has prepared a plan to restore a total of 15,881 square feet located outside of the proposed development envelope for the three lots, which is located in the center. The perimeter restoration area will be used to mitigate impacts resulting from development of the parcel on the Santa Cruz sandhills—sensitive habitat found only on Zayante soils in central Santa Cruz County, which supports rare and endangered species including the Mount Hermon Jun beetle (*Polyphylla barbata*). This on-site restoration will be conducted in addition to the future purchase of conservation credits at a Sandhills conservation bank to compensate for loss of habitat resulting from development of the parcels.

1.2 Purpose

This plan outlines the steps that will be taken to restore habitat within the 15,881-square-foot restoration area on site by controlling invasive plants, to promote establishment and growth of native plants that occur within the Sandhills habitat at the site, and improve habitat conditions for the Mount Hermon June beetle.

1.3 Plan Contents

It contains five main components:

1. **Assessment of the site conditions**, including the geology, soils, and species;
2. **Restoration goal and approach**, which identify the desired outcome of the restoration;
3. **Restoration treatments** that will be used to promote attainment of the goals;
4. **Monitoring and adaptive management** designed to evaluate status of the restoration and enhance success including through planting, as needed; and
5. **Implementation**, which identifies roles and the anticipated timing with respect to development.

2 Site Assessment

2.1 Location

The restoration site is located within current assessor's parcel 067-041-14, a 37,314-square-foot lot located at 504 Lockewood Lane, in Santa Cruz County just west of the town of Scotts Valley. Within the existing parcel, the restoration area is the 15,881-square-foot area that surrounds the cumulative development envelope located in each of the three lots in the center of the parcel (Figure 1). The development envelopes is where all construction, landscaping, and other improvements may occur. It will be separated from the restoration area by a visible boundary line, such as a low fence, designed to prevent future owners of the properties from conducting improvements in the area.

2.2 Geology, Soil, and Topography

As mapped by the Soil Conservation Service, the restoration area contains Zayante soils, a poorly developed, deep, coarse, sand soil derived from the weathering of uplifted marine sediments and sandstone of the Santa Margarita formation (USDA 1980). Soil within the site is a medium brown-grey sand soil characteristic of soil of the Zayante series that supports dense woody vegetation and thus has accumulated greater organic matter. Terrain within the parcel is gently sloping to the east-southeast (toward Lockewood Lane), perhaps as a result of prior grading to develop the Whispering Pines neighborhood in which it is located.

2.3 Existing Development

The property currently features a single-family residence, which is located in the central-northern portion of the parcel. It also features associated improvements including a carport, paved driveways, and two sheds. These existing developments will be demolished as part of development of single-family residences on each of the three new lots created on the parcel.

2.4 Vegetation and Native Plant Species

Native vegetation on the property has been cleared in association with its development in the 1950s, around when much of the new development in the neighborhood occurred. Historically the area supported ponderosa pine forest—a community found in more mesic (moister) conditions within the Sandhills, including on cooler slope aspects, in transitional soils, and/or later successional areas (i.e. areas that have not burned in numerous decades; McGraw 2004). Remnant native trees on the property include coast live oak (*Quercus agrifolia*) and ponderosa pine (*Pinus ponderosa*). Native plant species in occur at low relative abundance, perhaps as a result of recent mowing or other disturbance; they include California blackberry (*Rubus ursinus*), bracken fern (*Pteridium aquilinum* var. *pubescens*), and pink honeysuckle (*Lonicera hispidula*).

2.5 Exotic Plants

Perhaps as a result of prior clearing, the property supports a diverse assemblage of exotic plant species—species that do not naturally occur within California. Many of these species are highly competitive and alter the structure and species composition of the native plant community; such exotic species are considered to be invasive. The invasive species within the restoration area are: silver wattle

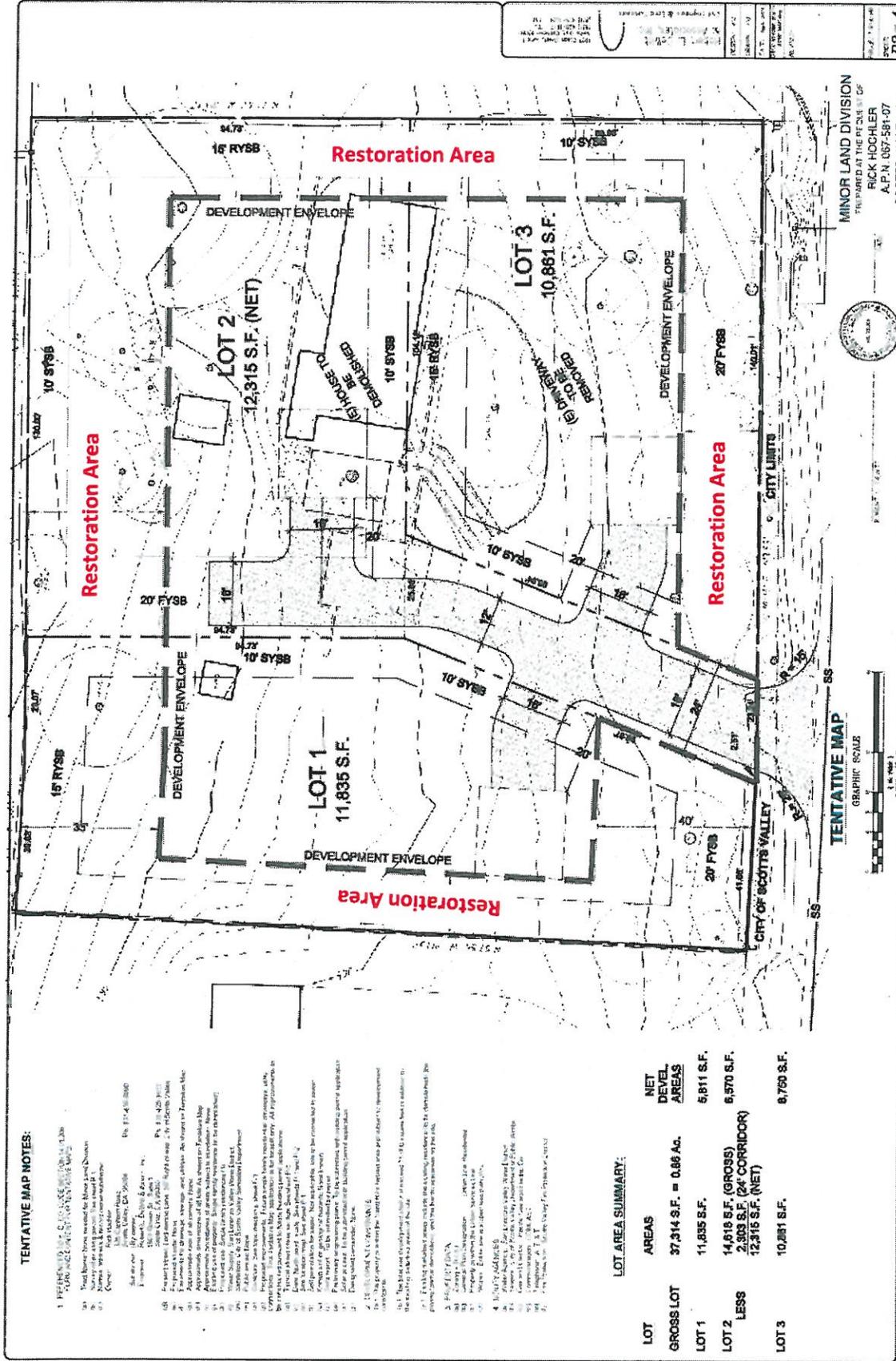


Figure 1: Map of 504 Lockewood Lane, showing Lots 1, 2, and 3 with respect to existing paved areas. The restoration area is the area within the existing parcel that is outside of the three lots (i.e. the perimeter of the parcel). Map prepared by Robert DeWitt.

(*Acacia dealbata*), blue gum (*Eucalyptus globulus*), French broom (*Genista monspessulana*), and periwinkle (*Vinca major*).

The restoration area also features dense exotic grasses and forbs, including rip-gut brome (*Bromus diandrus*), rattlesnake grass (*Briza maxima*), sheep sorrel (*Rumex acetosella*), rough cat's ears (*Hypochaeris radicata*), smooth cat's ears (*H. glabra*), woodland geranium (*Geranium molle*), and Bemuda buttercup (*Oxalis pes-caprae*) as well daffodil (*Narcissus cf. pseudonarcissus*).

2.6 Special-Status Species

Of the seven rare and endangered plants and animals known to occur within the Sandhills, only the Mount Hermon June beetle is likely to occur within the property (Table 1).

Table 1: Occurrence of special status species within the Sandhills within the restoration site

Species	Status	Occurrence within the Site
Santa Cruz kangaroo rat (<i>Dipodomys venustus venustus</i>)	California Special Animal (DFW 2011)	Unlikely to be present; inhabits sand chaparral
Zayante band-winged grasshopper (<i>Trimerotropis infantilis</i>)	Federally Endangered	Unlikely to be present; inhabits open sand parkland.
Mount Hermon June beetle (<i>Polyphylla barbata</i>)	Federally Endangered	Likely present; inhabits various sandhills communities on Zayante soil.
Ben Lomond spineflower (<i>Chorizanthe pungens</i> var. <i>hartwegiana</i>)	Federally Endangered; Rare Plant Rank 1B.1 1B.1 ¹	Unlikely to be present; annual species not observed during site assessment and dense herbaceous vegetation creates unsuitable habitat.
Ben Lomond (Santa Cruz) wallflower (<i>Erysimum teretifolium</i>)	Federally Endangered; California Endangered; Rare Plant Rank 1B.1	Absent; perennial species not observed during site assessment and dense vegetation creates unsuitable habitat.
Ben Lomond buckwheat (<i>Eriogonum nudum</i> var. <i>decurrens</i>)	Rare Plant Rank 1B	Absent; perennial species not observed during site assessment and dense vegetation creates unsuitable habitat.
silverleaf manzanita (<i>Arctostaphylos silvicola</i>)	Rare Plant Rank 1B.2	Absent; conspicuous shrub not observed during site assessment.

¹ Rare Plant Rank: rare or endangered in CA and elsewhere (CNPS 2014)

2.6.1 Rare and Endangered Plants

The property is unlikely to support occurrences of the four plant species endemic to the Sandhills due to its land use history, which. The three perennial species, Ben Lomond buckwheat, Ben Lomond wallflower, and silverleaf manzanita, were not observed during site visits conducted in fall and winter of 2014 (J. McGraw, pers. Obs.). The annual Ben Lomond spineflower was similarly not observed, and is unlikely to occur on the site as a result of dense exotic herbaceous plant cover; however, it may occur at

low abundance and distribution. This species may also establish from a seed bank following disturbance (McGraw 2004a,b).

2.6.2 Rare Animals

The property is highly unlikely to support the Zayante band-winged grasshopper or the Santa Cruz kangaroo rat. These species occur in the Hanson Quarry conservation areas, less than 0.15 miles west-northwest of the property; however, neither inhabits the denser ponderosa pine forest habitat found in and around the parcel. Instead, Zayante band-winged grasshopper occurs in open sand parkland, and the Santa Cruz kangaroo rat occurs in sand chaparral. Moreover, both species are highly sensitive to habitat fragmentation, and are not typically observed in developed areas (McGraw 2004b, USFWS 2009, USFWS et al. 2011).

The property provides habitat suitable for the Mount Hermon June beetle, which inhabits a wide variety of vegetation occurring on sand or sandy loam soils in central Santa Cruz County; the largely fossorial species has been observed in residential developments (USFWS et al. 2011). Larvae feed on the roots of a variety of plant species, as well as mycorrhizae—the fungi associated with plant roots (Hill and O'Malley 2009). Adults emerge in the evenings between May and August to mate (McGraw 2004b).

3 Site Restoration

3.1 Opportunities and Challenges

The existing conditions within the restoration area present both opportunities and challenges to restoration (Table 2), which were factored into the restoration goals and approach (Section 3.2) and used to develop the plan treatments (Section 3.3).

3.2 Restoration Goal and Approach

The goals for restoration of the site are to: 1) reduce the abundance of invasive plants which compete with native Sandhills plants, and degrade habitat for the Mount Hermon June beetle, and 2) achieve at least 40% absolute cover of native plants within each restoration area on each parcel. This target cover, which includes canopy cover from native trees, is similar to that within intact sandhills habitat (i.e. sand parkland) which supports the Mount Hermon June beetle as well as other rare and unique sandhills species.

The restoration goal will be achieved through two main approaches:

1. **Control invasive plant species:** Reducing the abundance and competitive effects of invasive plants, which will promote establishment and growth of native Sandhills plants. Invasive vines, shrubs, and trees will be targeted for control, as when compared with herbaceous invasive plants, these target plants cause greater alterations to native community structure and species composition; they are also more susceptible to control treatments. Control of herbaceous exotic plants will promote restoration of the site, and is recommended as resources allow; however, it is not required.
2. **Active Planting of Native Sandhills Plants:** Control of invasive vines, shrubs, and trees, along with cessation of mowing, weed whipping, or other disturbance, is anticipated to allow

Table 2: Opportunities and Challenges to Restoration of the Site

Opportunities	Challenges
<ul style="list-style-type: none"> • The property features populations of native trees and herbs which can naturally recolonize areas currently occupied by invasive plants. • Many native Sandhills plants establish following disturbances, such as fire; invasive plant removal treatments may simulate the beneficial effects of disturbances (e.g. create open soil and canopy conditions) and promote their establishment. • Relatively dense native tree cover within the site can deter establishment of invasive plants that require more light. 	<ul style="list-style-type: none"> • Several of the invasive plants including silver wattle and French broom feature long-lived seed banks—dormant seed within the soil from which plants re-establish following control treatment. • Many invasive plants are also adapted to disturbance; control treatments may promote their establishment. • Silver wattle and periwinkle can regenerate vegetatively from root sprouts, rhizomes, or other tissue left in the soil following initial treatment. • Silver wattle occurs on the surrounding properties and may re-establish from seed following clearing. • The relatively well-developed soil within the site can promote growth of non-Sandhills plant species that might be limited in Sandhills sites that lack high concentrations of organic matter and nutrients.

establishment of at least 40% cover of native plants. If this target is not achieved by year 3 of the restoration, then active planting of native Sandhills plants will be used to achieve the success criterion (Section 4.2). Property owners who seek to initiate native sandhills plantings prior to year 3 can do so following the planting guidelines outlined in Section 4.2.

3.3 Invasive Plant Control Treatments

Table 3 lists the proposed treatment targets and control methods for the various guilds of invasive plants within the site. The targets indicate the desired conditions immediately following treatment. Control methods identify the recommended techniques to be applied to achieve the targets.

As noted above, targets are provided for invasive vines, shrubs, and trees only. Control of exotic grasses and forbs will promote restoration of the site and is, therefore, recommended; however, only treatment of invasive vines, shrubs, and trees is required to implement this plan.

3.4 Biomass Removal

All invasive plant biomass, including trunks, branches, leaves, fruits, and seeds, should be disposed of offsite at a green waste recycling facility or other suitable location. If left on site, this material would impede restoration by:

- promote re-establishment of invasive plants;
- deter native plant re-establishment, which is limited by litter on the soil surface; and

Table 3: Control treatments for exotic plants within the restoration area

Exotic Species or Guilds	Treatment Targets ¹	Control Method(s)
Vines such as periwinkle	Remove all established individuals	Cut vines to approximately 1 foot lengths, and spray herbicide onto the cut stems
Shrubs such as French broom	Remove all established individuals	<u>Shrubs ≥6' in height:</u> Cut and immediately treat cambium with herbicide. <u>Shrubs <6' in height:</u> Pull by hand or with the aid of a weed wrench.
Trees such as silver wattle and blue gum	Remove all established individuals	<u>Adults:</u> Cut and immediately treat cambium with herbicide. <u>Seedlings or Root Sprouts:</u> Hand pull or, if dense, treat with foliar herbicide.
Exotic grasses and forbs (e.g. rip-gut brome, rattlesnake grass, sheep sorrel, and rough cat's ears)	None ¹	Weed whack dense infestations mid-winter and again in early spring, prior to seed production, taking care not to impact native plants.

¹ Control of herbaceous plants can promote restoration; however, it is not required as part of this plan.

- impede burrowing and emergence of the fossorial Mount Hermon June beetle (McGraw 2004a,b).

Woody material should be chipped directly into a container for off-site disposal (rather than piled on the ground). All other material should be similarly hauled off-site.

3.5 Treatment Frequency

Invasive plant control treatments should be conducted during years 1, 3, and 5 of this five-year restoration plan. This schedule is designed to provide effective control, while reducing costs relative to annual treatment; however, annual treatment can be implemented as resources allow. Follow-up treatments following year 5 will be necessary to prevent re-establishment of invasive plants, and should similarly be conducted as resources allow; however, treatments following the initial five-year period are not a requirement of this plan.

4 Monitoring and Adaptive Management

4.1 Monitoring

Qualitative assessments of the restoration site will be conducted following implementation of the treatments in years 1, 3, and 5. The purpose of the visual assessment will be to examine the distribution, abundance, and condition of exotic plant species, particularly the invasive species targeted for removal (Table 3), and assess the status of native plant establishment and growth and progress toward achieving

the success criterion of 40% absolute cover. Results of the monitoring will be used to inform adaptive management.

4.2 Adaptive Management

This restoration plan will be implemented as part of an adaptive management process, in which management is adjusted, as needed, based on treatment effectiveness and changed conditions, in order to attain the plan goal. The elements of this restoration plan were developed based on the initial site conditions and known aspects of the ecology of the system and species. During the course of plan implementation, it may be necessary to make adjustments to various components of the plan to meet the plan's goal.

The restoration treatments (Table 3) can be adjusted to address changes in circumstances, including re-establishment of target species, and the invasion of new species. Also, if, by year 3, native perennial plants including herbs, shrub, and trees, do not constitute at least 25% of the absolute cover within the restoration areas within each lot, then active revegetation will be used to increase the cover of native plants and ensure that the 40% cover desired is achieved by year 5.

A planting plan will be developed based on the conditions at the time and availability of native plants. Suitable species include but are by no means limited to the following: coast live oak, ponderosa pine, silverleaf manzanita, buck brush (*Ceanothus cuneatus* var. *cuneatus*), mock heather (*Ericameria ericoides*), and sticky monkeyflower (*Mimulus aurantiacus*), and yarrow (*Achillea millefolium*). Other native plants adapted to the site's unique microhabitat conditions (Section 2.2) could also be used.

To avoid causing genetic erosion, the native sandhills plants installed to the restoration area should be from genetic material (seeds or cuttings) derived from the Whispering Pines Sandhills site or the adjacent sandhills sites mapped in the *Sandhills Conservation and Management Plan* (McGraw 2004b).

Native shrubs and trees can be installed on 8 foot to 12 foot centers; perennial herbs, if used, could be planted at higher density. The plantings should complement the existing vegetation, the condition of which will also influence the total number of plants to be planted.

4.3 Reporting

Annual reports of plan implementation will be provided to the County of Santa Cruz Planning Department by January 31 the year following treatment (i.e. years 2, 4, and 6). Each annual report will include the following:

1. A description of the restoration treatments implemented during the year and to date;
2. An assessment of the site conditions including invasive plant and native plant cover and effectiveness of the restoration to date; and
3. Recommended changes to the treatments based on the adaptive management process.

5 Implementation

The owners of three new lots will be responsible for implementing the restoration plan by implementing the treatments outlined above on their respective restoration areas located on the perimeters of their lots. This requirement will be recorded on the deeds of the two newly created parcels. The restoration work must be initiated by the time work begins to develop each parcel; it can be initiated prior to development if the landowner chooses. Restoration work can also be coordinated among parcels, at the discretion of the landowner(s); while this will increase cost-effectiveness, it is not a requirement.

Landowners should contract with qualified personnel with experience in the ecology and management of Sandhills habitat in order to implement the plan. Such experts have experience implementing the restoration treatments within sensitive habitat, where steps must be taken to prevent inadvertent negative impacts due to the treatments. Notably, soil disturbance caused by work to pull invasive plants or plant native species can cause impacts to fossorial larva of the Mount Hermon June beetle, which can be salvaged and relocated by trained, permitted biologists. Sandhills biologists can also conduct monitoring and assist with reporting.

References

- California Native Plant Society (CNPS). 2014. California rare plant inventory. Available on-line at:
<http://www.rareplants.cnps.org/>.
- Department of Fish and Wildlife (DFW). 2011. California Special Animals List. Available at
<http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf>. January 2011.
- Hill, K. and R. O'Malley. 2010. A picky palate? The host plant selection of an endangered June beetle.
Journal of Insect Conservation 14:277-287.
- Hochler, R. 2014. Conversations with Rick Hochler regarding prior landowner survey for the Mount Hermon June beetle on his property at 701 Sugar Pine Road, Scotts Valley CA. July 1, 2014.
- McGraw, J. M. 2004a. Interactive effects between disturbance and exotic species on the structure and dynamics of an endemic sandhills plant community. Doctoral Dissertation in the Department of Integrative Biology, University of California at Berkeley. 309 pages.
- McGraw, J. M. 2004b. Sandhills conservation and management plan: a strategy for preserving native biodiversity in the Santa Cruz Sandhills. Report submitted to the Land Trust of Santa Cruz County, Santa Cruz, CA.
- McGraw, J. M. 2004b. Sandhills conservation and management plan: a strategy for preserving native biodiversity in the Santa Cruz Sandhills. Report submitted to the Land Trust of Santa Cruz County, Santa Cruz, CA.
- U.S. Department of Agriculture. 1980. Soil Survey of Santa Cruz County. Soil Conservation Service, United States Department of Agriculture and University of California.
- U.S. Fish and Wildlife Service. 2009. Zayante band-winged grasshopper and Mount Hermon June beetle five year review. US Fish and Wildlife Service. August 2009.
- U.S. Fish and Wildlife Service, County of Santa Cruz, and City of Scotts Valley. 2011. Interim Programmatic Habitat Conservation Plan for the Mount Hermon June Beetle and Ben Lomond Spineflower. January 2011. 96 pages.

MEMORANDUM

Date: June 8, 2015
To: Annette Olson
From: Jessica Duktig
Re: Archaeological Records Search

The archaeological records search prepared by Pacific Legacy Inc. dated May 16, 2008 was completed for two properties 701 Sugar Pine and 504 Lockwood Lane in Scotts Valley. The report review was completed under application 131271, which also covers the parcel under application 141228.



Central Coast Division/Administration
 1525 Seabright Ave.
 Santa Cruz, California 95062

Phone: 831.423.0588
 Fax: 831.423.0587
 www.pacificlegacy.com

May 16, 2008

Dr. Richard Arnold
 Entomological Consulting Services, Ltd.
 104 Mountain View Court
 Pleasant Hill, CA 94523-2188

RE: Results of Archaeological Records Search and Survey at 701 Sugar Pine Drive and 504 Lockwood Lane, Scotts Valley, Santa Cruz County, California

Dear Dr. Arnold:

This letter documents the results of a records search and archaeological survey for proposed development within the property boundary of above referenced address. The purpose of the study was to determine whether any significant archaeological or historical resources are present within the project area and subject to adverse impacts by construction activities. Results of the records search indicate that there are no cultural resources previously recorded within the project area, and no cultural resources are listed in the National Register of Historic Places, California Points of Historical Interest, or the California State Historic Landmarks. A thorough archaeological reconnaissance of the ground surface conducted April 30, 2008 yielded negative results for cultural resources. The project, as proposed, appears not to have potential significant adverse impacts on any cultural resources.

PROJECT DESCRIPTION

The project at the above-referenced address is part of a larger project involving the following activities in Scotts Valley:

- The demolition of an existing residence and construction of six new residences and a new street at 495 Lockwood Lane.
- The division of one lot into three lots, and the relocation of an existing residence onto one of these three lots at 587 Twin Pine Drive
- The construction of four new residences at the terminus of Collado Drive.
- The demolition of an existing residence at 504 Lockwood Lane, and the construction of three new residences at 504 Lockwood Lane and three new residences at 701 Sugar Pine Drive.
- The construction of 495 ft. of new living space to an existing residence at 224 Hidden Glen Drive.

PROJECT LOCATION

The project is located in the Felton 7.5' USGS quadrangle sheet, in Township 10 South, Range 2 West, Unsectioned, San Agustin Land Grant, Santa Cruz County, at UTM Zones 10S 585557 mE/4100068 mN, 585297 mE/4099803 mN, (See Figure 1).



Dr. Richard Arnold
Entomological Consulting Services, Ltd.
Page 2

CULTURAL SETTING
Native American Cultures

Archaeological evidence indicates Native Americans have lived in the Santa Cruz area for nearly 10,000 years (Jones 1991; Moratto 1984). The local environment afforded an abundance of resources for food, ornamentation, tools and economic exchange. Native cultures subsisted on seasonal gathering of resources such as acorn, grass seeds, kelp, and shellfish; hunting of terrestrial and marine mammals (deer, elk, rabbit, bear, seal, and sea lion); and fishing in freshwater streams and inshore marine habitats. Archaeological evidence indicates that trade and exchange took place with native groups as distant as the east side of the Sierra Nevada.

Native Americans living in the San Francisco and Monterey Bay areas were referred to by Spanish explorers of the 18th century as "Costaño" or "coast people." Costaño groups were recognized as speaking seven closely related languages (Shipley 1978). This linguistic group is now often referred to as Ohlone. The 18th century Ohlone community located in the vicinity of Mission Santa Cruz is believed to have been called Uypi, as recorded in mission records (King 1994; Milliken 1994). Establishment of Mission Santa Cruz and the introduction of European diseases by settlers for which the Ohlone had little natural resistance resulted in a rapid and dramatic decline in their population. Subsequent persecution and suppression of Ohlone cultural expressions by Spanish, Mexican and American ruling governments contributed to the decline of traditional Ohlone culture. Today, Ohlone descendants are celebrating a revival of their native culture and a growing appreciation of their place in the multicultural environment of California.

Historic Era

Father Junipero Serra and Captain Gaspar de Portola began the land-based exploration and settlement of Alta California in 1769. Mission Santa Cruz was founded in 1791, and was the first permanent European settlement in the Santa Cruz area (Clark 1986; Hoover et al. 1990). Shortly afterward, Diego de Borcia, the Governor of Alta California, selected the Santa Cruz area as the best location to fortify Alta California against the colonial interests of Russia, France, and Great Britain and established Pueblo de Branciforte in 1797 on a bluff across the San Lorenzo River from the mission. After mission secularization (1833-1834), the site of Mission Santa Cruz (actually the mission's second location, built in 1794) became Holy Cross Church.

Santa Cruz County, established in 1850 (first called Branciforte County), was named after the mission and was one of California's original 27 counties. By this time, the Gold Rush had caused a huge influx of settlers to California. Santa Cruz County grew and enjoyed a prosperous economy based on logging, lime processing, agriculture, and commercial fishing.



Dr. Richard Arnold
Entomological Consulting Services, Ltd.
Page 3

The town of Scotts Valley was named for Hiram Scott, who bought Rancho San Agustin from Joseph Ladd Majors in 1850. Majors, in turn, had been granted the Rancho by the Mexican government in 1841. Over the next few years, a predominantly agricultural settlement began to grow up around the Scott House. The local economy was primarily based on the dairy industry (Clark 1986).

In 1966 the City of Scotts Valley was incorporated, and over the next several decades, the population of Scotts Valley grew as commuters to San Jose and Santa Cruz took up residence, as did students from both UC Santa Cruz and Bethany Bible College.

ARCHIVAL RESEARCH

The Northwest Information Center (NWIC) of the California Historical Resources Information Center conducted a records search of the project area (File No.07-1497), which included a review of:

- NWIC site and study base maps;
- National Register of Historic Places (*Directory of Determinations of Eligibility*), California Office of Historic Preservation, Volumes I and II, 1990;
- *California Historical Landmarks*(State of California 1990);
- *California Points of Historical Interest*listing (May 1992).

The archival search indicated five studies had previously been performed in the project APE(S-3913, S-4125, S-6296, S-16703, S-16704), and that 51 had been performed within ½ mile of the project APE. None of these studies found resources within the project APE

There are no cultural resources previously recorded in the project APE nor are there any other resources listed in the National Register of Historic Places, the California Points of Historical Interest, or the California State Historic Landmarks. Within ½ mile of the project APE, there are three previously recorded Prehistoric cultural resources (CA-SCR-78, CA-SCR-338, and CA-SCR-343), and two previously recorded mixed-component (prehistoric and historic) archaeological sites (CA-SCR-88/H, CA-SCR-112/H). Copies of the site records are available under confidential cover upon request.

A request was submitted to the California Native American Heritage Commission to consult their Sacred Lands Files in order to identify other culturally significant properties at the project location. In a letter dated April 25 2008, the Commission reported that no sacred lands were known to the Commission within the project area (see Attachment).

ARCHAEOLOGICAL SURVEY

An archaeological reconnaissance was conducted for this project by Patricia Paramoure, B.A. on April 30, 2008. Mr. Paramoure has three years of California archaeology and cultural resource management experience.



Central Coast Division/Administration
 1525 Seabright Ave.
 Santa Cruz, California 95062

Phone: 831.423.0588
 Fax: 831.423.0587
 www.pacificlegacy.com

Dr. Richard Arnold
 Entomological Consulting Services, Ltd.
 Page 4

Dense vegetation limited visibility. Nonetheless, a thorough inspection of the ground surface over the entirety of both properties indicates that there are no cultural resources present. However, a raised berm was found on the Sugar Pine Lane property, and was likely the result of previous grading activity. Also, Bea Burns, the resident at 504 Lockwood stated that local rumor held that a person had been buried where the garage currently stands, and that a stagecoach stop had been present at this location. However, Ms. Paramoure found no indication that either statement was true.

STUDY FINDINGS

No heritage resources are previously recorded within the project area. No prehistoric or historic resources were newly identified within the project area during the reconnaissance survey.

RECOMMENDATIONS

Clearance for the project is recommended as no heritage resources are known to be present in the project area. No adverse affect to historic properties are anticipated and no protection measures are recommended. Because there are no indications that cultural resources exist in the project area further archaeological work is not recommended. If archaeological remains are discovered in the course of construction activities, construction should be halted and the potential resource evaluated by a qualified archaeologist. The archaeologist will recommend appropriate mitigation measures.

If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted, the Santa Cruz County coroner notified, and the provisions of Public Resources Code 5097.98-99, Health and Safety Code 7050.5 carried out. If the remains are determined to be Native American, then the Native American Heritage Commission (NAHC) will be notified within 24 hours as required by Public Resources Code 5097. The NAHC will notify designated Most Likely Descendants who will provide recommendations for the treatment of the remains within 48 hours of being granted access to the site. The NAHC will mediate any disputes regarding treatment of remains.

Please contact me with any questions at 423-0588 ext. 17, or by email at armstrong@pacificlegacy.com

Sincerely,

Matthew Armstrong, M.A.
 Archaeologist/Project Supervisor



Central Coast Division/Administration
1525 Seabright Ave.
Santa Cruz, California 95062

Phone: 831.423.0588
Fax: 831.423.0587
www.pacificlegacy.com

Dr. Richard Arnold
Entomological Consulting Services, Ltd.
Page 5

cc: Northwest Information Center, Sonoma State University
cc: Thomas L. Jackson

Attachments: Figure 1. Project Vicinity Map
Figure 2. Project Location Map
Native American consultation correspondence

REFERENCES CITED:

- Clark, D. T.
1986 *Santa Cruz County Place Names: A Geographical Dictionary*. Santa Cruz Historical Society, Santa Cruz, CA.
- Edwards, R. and C. Simpson-Smith
1998 Reconnaissance Survey Extending the Boundaries of CA-SCR-93/H, an Urban Prehistoric Site in the City of Santa Cruz, Santa Cruz County, California. On file, Northwest Information Center, Sonoma State University, Rohnert Park, CA.
- Hoover, M. B., H. E. Rensch, E. G. Rensch, and W. N. Abeloe
1990 *Historic Spots in California* Stanford University Press, Stanford, CA.
- Jones, T. L.
1991 Marine-Resource Value and the Priority of Coastal Settlement: A California Perspective. *American Antiquity* 56:419-443.
- King, C.
1994 Central Ohlone Ethnohistory. In, *The Ohlone Past and Present: Native Americans of the San Francisco Bay Region*, edited by L.J. Bead, pp. 203-228. Ballena Press, Menlo Park, CA.
- Milliken, R.
1994 The Costanoan-Yokuts Language Boundary in the Contact Period. In, *The Ohlone Past and Present: Native Americans of the San Francisco Bay Region* edited by L.J. Bead, pp. 165-181. Ballena Press, Menlo Park, CA.
- Moratto, M.J.
1984 *California Archaeology*. Academic Press, Orlando, FL.



Central Coast Division/Administration
1525 Seabright Ave.
Santa Cruz, California 95062

Phone: 831.423.0588
Fax: 831.423.0587
www.pacificlegacy.com

Dr. Richard Arnold
Entomological Consulting Services, Ltd.
Page 6

Pulcheon, A., T. E. Jones, and M. Konzak
2006 Cultural Resources Background Report and Archaeological Sensitivity Map for the City of Santa Cruz General Plan Update, Santa Cruz, Santa Cruz County, California. On file, Northwest Information Center, Sonoma State University, Rohnert Park, California.

Shipley, W.F.
1978 Native Languages of California. In, *Handbook of North American Indians* edited by W. Sturtevant, Volume 8 (California), pp. 80-90. Smithsonian Institution, Washington, D.C.



SOURCE: TOPO! National Geographic Holdings, California CD-ROM, 2004.

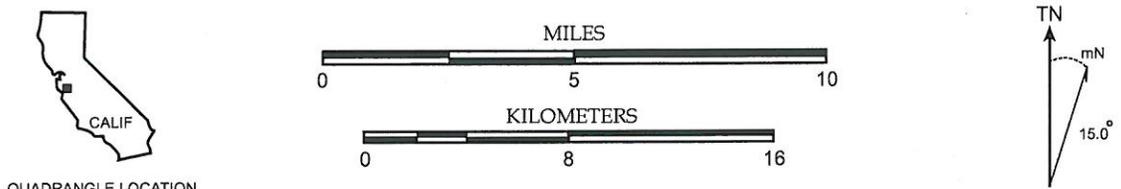
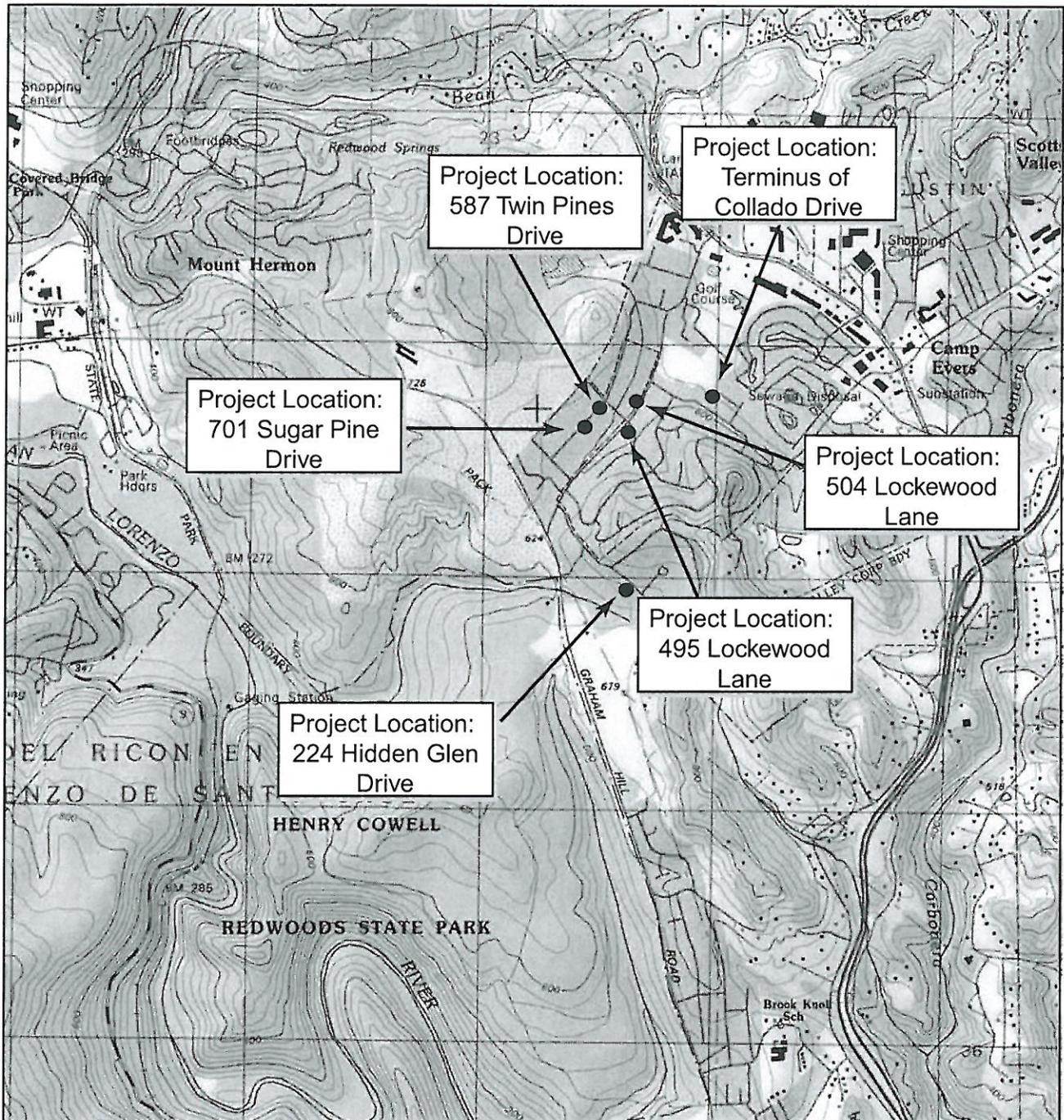


Figure 1. Whispering Pines Project Vicinity Map





SOURCE: USGS 7.5' Santa Cruz, Calif. 1954 (Revised 1994); SCALE: 1:24,000

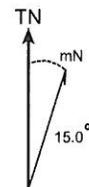
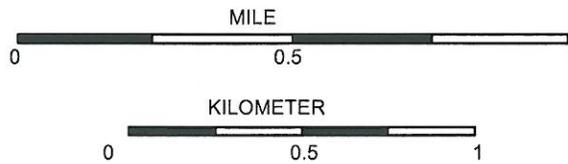


Figure 2: Project Location Map - Whispering Pines, Scotts Valley, Santa Cruz County.



ATTACHMENT 1
NATIVE AMERICAN HERITAGE COMMISSION CORRESPONDENCE

STATE OF CALIFORNIAArnold Schwarzenegger, Governor**NATIVE AMERICAN HERITAGE COMMISSION**

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov



April 25, 2008

Matthew Armstrong, MA rPA
Archaeologist/Project Supervisor
Central Coast Division
PACIFIC LEGACY
1525 Seabright Ave.
Santa Cruz, CA 95062

Sent by Fax: 831-423-0587
Number of Pages: 2

Re: Proposed: Whisperin Pines Project, Santa Cruz County.

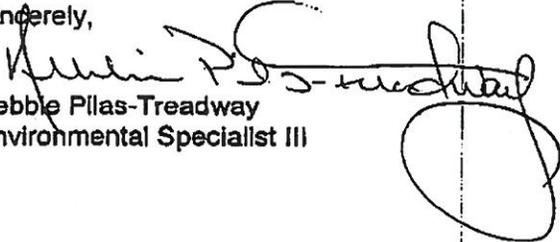
Dear Mr. Armstrong:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,


Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
Santa Cruz County
April 25, 2008

<p>Linda G. Yamane 1585 Mira Mar Ave. Seaside , CA 93855-3326 (831) 394-5915</p>	<p>Ohlone/Costanoan</p>	<p>Amah/Mutsun Tribal Band Irene Zwielerlein, Chairperson 789 Canada Road Woodside , CA 94062 amah_mutsun@yahoo.com (650) 851-7747 - Home (650) 851-7489 - Fax</p>	<p>Ohlone/Costanoan</p>
<p>Jakki Kehl 720 North 2nd Street Patterson , CA 95363 jakki@bigvalley.net (209) 892-2436 (209) 892-2435 - Fax</p>	<p>Ohlone/Costanoan</p>	<p>Costanoan Ohlone Rumsen-Mutsen Tribe Patrick Orozco 644 Peartree Drive Watsonville , CA 95075 yanapvoic@earthlink.net (831) 728-8471 (831) 728-8471</p>	<p>Ohlone/Costanoan</p>
<p>Amah Mutsun Tribal Band Valentin Lopez, Chairperson 3015 Eastern Ave. #40 Sacramento , CA 95821 vlopez@amahmutsun.org (916) 481-5785</p>	<p>Ohlone/Costanoan</p>	<p>Indian Canyon Mutsun Band of Costanoan Ann Marie Sayers, Chairperson P.O. Box 28 Hollister , CA 95024 ams@garlic.com 831-637-4238</p>	<p>Ohlone/Costanoan</p>
<p>Amah Mutsun Tribal Band Edward Ketchum 35867 Yosemite Ave Davis , CA 95616 aerieways@aol.com</p>	<p>Ohlone/Costanoan Northern Valley Yokuts</p>	<p>Trina Marine Ruano Family Ramona Garibay, Representative 16010 Halmar Lane Lathrop , CA 95330</p>	<p>Ohlone/Costanoan Bay Miwok Plains Miwok Patwin</p>

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Whisperin Pines project, Santa Cruz County.

ATTACHMENT 2
CALIFORNIA HISTORIC INFORMATION SYSTEM
CORRESPONDENCE



MEMO

Date: 22 April 2008

To: Matthew Armstrong, Pacific Legacy, Inc., 1525 Seabright Avenue, Santa Cruz,
CA 95062

From: Lisa Hagel

Re: 2135-01, Whispering Pines; NWIC File #: 07-1497

Felton 7.5'

Sites in or within 1/2 mile radius of the project area: There were no recorded sites within the project areas. CA-SCR-78 & 88/H; P-44-116, 439, & 493 are within 1/2 mile. Enclosed are copies of the site record forms. The site locations are plotted on your map.

Studies in or within 1/2 mile radius of the project area: S-3913, 4125, 6524, 16703, 16704, & 6296 are within the project areas. S-6365, 4029, 3889, 11302, 11492, 18843, 11963, 8139, 14239, 9816, 7848, 10535, 3812, 3877, 3930, 10701, 11470, 15942, 5954, 11366, 13328, 24572, 8313, 7032, 17528, 10841, 3855, 4113, 18671, 19012, 20127, 11454, 10201, 16354, 11374, 14012, 11251, 4124, 3993, 28809, 26410, 29406, 28468, 20624, 24149, 24207, 23538, 32116, 31499, & 28491 are within 1/2 mile. Enclosed are bibliographic references for the reports. The study locations are plotted on the enclosed map.

OHP Historic Properties Directory: Copied the indices for Scotts Valley & vicinity.

California Inventory of Historical Resources: There were no listings in Scotts Valley.

ATTACHMENT 3
RESUMES OF PACIFIC LEGACY PERSONNEL



Matthew D. Armstrong

Project Supervisor / Archaeologist

Summary of Qualifications

Mr. Armstrong has been involved in archaeology since 1996, and has worked as a professional archaeologist since 2002. His experience includes working in capacities ranging from field technician through project manager and primary report author for projects throughout California, including work as a contractor and later as an intern at Vandenberg Air Force Base in Santa Barbara County, California.

Mr. Armstrong has executed cultural resources inventory and survey plans, monitoring plans, and significance testing plans. In addition, he has worked as part of multi-disciplinary NEPA teams in producing general environmental planning and compliance documents.

Education

M.A., Anthropology - Archaeology Emphasis, University of California, Santa Barbara, 2006
B.A., Anthropology (Major), History (Minor), University of California, Santa Cruz, 1998
Certificate in archaeological field and lab techniques, Cabrillo College, Aptos, California, 2000

Selected Experience

As Crew Chief

University of California – Led cartography crew for UC Santa Barbara's 2005 field school. Created topographic maps of archaeological sites, and taught the techniques to students at the field school.

Various Municipal and County Governments – Performed road surveys, parcel surveys, CRHR eligibility evaluation excavation, and archaeological site boundary testing in support of applications for building permits in the counties of Santa Cruz, Monterey, San Luis Obispo, Ventura, and Santa Barbara. Performed as an employee of Garcia and Associates, URS Corporation, and Pacific Legacy, Inc.

As Field Director or Project Manager

Private Clients for Municipal and County Governments – Performed or supervised parcel surveys, CRHR eligibility testing, and archaeological site boundary testing for properties in Santa Cruz, Monterey, and Santa Barbara Counties. Wrote reports for all projects. Performed as an employee of URS Corporation and Pacific Legacy, Inc.

FHWA/Caltrans – Performed and supervised archaeological survey and wrote and prepared report for FHWA/Caltrans projects in Santa Barbara County.

Energy Projects and Utilities – Performed and supervised archaeological survey and recovery, prepared reports, and consulted with public agencies for electrical transmission lines, gas/oil pipelines, water pipelines, hydroelectric facilities, and oil fields in the counties of Ventura, Los Angeles, Tulare, Kern, Placer, and El Dorado.

General Work History

June 2007 to present

Project Supervisor/Archaeologist, Pacific Legacy, Inc.

- Planned and executed cultural resources surveys and excavations.
- Report author.
- Consulted with clients, Native American individuals and organizations, and government agencies.

February 2006 to May 2007

Archaeologist/Project Scientist, URS Corporation, Santa Barbara, CA

- Planned and executed cultural resources surveys and excavations.



Matthew D. Armstrong

Project Supervisor / Archaeologist

- Report author.
- Consulted with clients, Native American individuals and organizations, and government agencies.
- As necessary, assisted personnel from other resource areas (biology, geology, etc.)

September 2005 to February 2007

Project Manager, GIS Records Project, Central Coast Archaeological Information Center, University of California, Santa Barbara.

- Trained, supervised, and coordinated personnel.
- Performed quality control on archaeological site shapefiles generated by project personnel.

April 2004 to September 2005

Archaeologist/Environmental Intern, Vandenberg Air Force Base, California

- Assisted in project review to determine necessity of cultural resources studies.
- Performed surveillance of threatened and sensitive archaeological sites.
- Helped to maintain databases to allow Native American traditional use access to the base.
- Performed review of documents submitted by cultural resources contractors.
- Built and maintained an archaeological/historic site database.

2002-2004

Field and Laboratory Technician/Archaeologist, Applied Earthworks, Lompoc, California

- Field technician on NRHP/CRHR eligibility testing excavations and data recovery excavations.
- Lab technician, performing basic lab work, and faunal analysis.

Professional Affiliations & Memberships

Society for American Archaeology
Society for California Archaeology
Register of Professional Archaeologists



Patricia Paramoure

Archaeological Field Technician

Summary of Qualifications

Ms. Paramoure has been involved in archaeology for over fifteen years, and has been working as a field technician for the last three years.

Education

B.A., Anthropology, University of California, Santa Barbara, 1991
Certificate in archaeological field and lab techniques, Cabrillo College, Aptos, California, 2006
A.A. in archaeological field and lab techniques, Cabrillo College, Aptos, California, 2006

Work Experience

Archaeological Resources Management, San Jose, CA, 2006-2008

As a field technician for Archaeological Resources Management, Ms. Paramoure performed archaeological survey, excavation, burial recovery, and construction monitoring for projects in Santa Cruz, Santa Clara, Monterey, and San Benito Counties.

Pacific Legacy, Inc., Santa Cruz, CA 2007-2008:

As a field technician for Pacific Legacy, Inc., Ms. Paramoure has performed archaeological surveys and monitoring under the guidance of supervisory staff. This has included projects in Santa Cruz, Monterey, and Tulare Counties.

Cogstone Resources Management, Santa Ana, CA 2004

Ms. Paramoure participated in survey and excavation at the Santa Ysabela Ranch site in San Luis Obispo County.

Professional Affiliations & Memberships

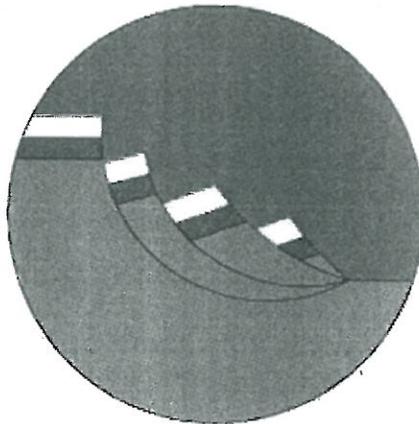
Santa Cruz Archaeological Society
Society for California Archaeology
Archaeological Conservancy

GEOTECHNICAL INVESTIGATION

504 Lockwood Lane
Scotts Valley, Santa Cruz County, California

Submitted to:

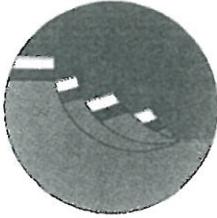
Hochler Construction
325 Canham Road
Scotts Valley, California 95066



Prepared by:

CMAG ENGINEERING, INC.

Project No. 14-125-SC
September 10, 2014



CMAG ENGINEERING, INC.

P.O. BOX 640 APTOS, CALIFORNIA 95001

PHONE: 831.475.1411

WWW.CMAGENGINEERING.COM

September 10, 2014
Project No. 14-125-SC

Hochler Construction
325 Canham Road
Scotts Valley, California 95066

Attn: Rick Hochler

SUBJECT: GEOTECHNICAL INVESTIGATION
Proposed 3 Lot Minor Land Division
504 Lockwood Lane, Scotts Valley, Santa Cruz County, California
APN 067-041-14

Dear Mr. Hochler:

In accordance with your authorization, we have completed a geotechnical investigation for the subject project. This report summarizes our findings, conclusions, and recommendations for development of the minor land division from a geotechnical standpoint. It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

CMAG ENGINEERING, INC.



Adrian L. Garner, PE, GE
Principal Engineer
C 66087, GE 2814
Expires 6/30/16

- Attachments 1. Figures and Standard Details
- Appendices 1. Appendix A Field Exploration Program
2. Appendix B Laboratory Testing Program

Distribution: Addressee (4 Hard Copies; Electronic Copy)

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Terms of Reference	1
1.2	Site Location	1
1.3	Surface Conditions	1
2.0	PROJECT DESCRIPTION	2
3.0	FIELD EXPLORATION AND LABORATORY TESTING PROGRAMS	2
4.0	SUBSURFACE CONDITIONS AND EARTH MATERIALS	2
4.1	General	2
4.2	Santa Margarita Sandstone - Tsm	2
4.3	Groundwater	3
5.0	GEOTECHNICAL HAZARDS	3
5.1	General	3
5.2	Seismic Shaking	3
5.3	Collateral Seismic Hazards	4
6.0	DISCUSSIONS AND CONCLUSIONS	4
7.0	RECOMMENDATIONS	4
7.1	General	4
7.2	Site Grading	5
7.2.1	Site Clearing	5
7.2.2	Preparation of On-Site Soils	5
7.2.3	Cut and Fill Slopes	7
7.2.4	Utility Trenches	7
7.2.5	Vibration During Compaction	7
7.2.6	Excavating Conditions	8
7.2.7	Surface Drainage	8
7.3	Foundations	9
7.3.1	Conventional Shallow Foundations	9
7.3.2	Concrete Slabs-on-Grade	9
7.3.3	Settlements	10
7.4	Retaining Structures	10
7.4.1	General	10
7.4.2	Lateral Pressure Due to Earthquake Motions	10
7.4.3	Lateral Earth Pressures	10
7.4.4	Backfill	11
7.4.5	Backfill Drainage	11
7.5	Plan Review	12
7.6	Observation and Testing	12

8.0 LIMITATIONS 13

REFERENCES 14

TABLES

Table 1. Seismic Design Parameters - 2013 CBC..... 4

Table 2. Lateral Earth Pressures..... 11

FIGURES AND STANDARD DETAILS

Figure 1: Surcharge Pressure Diagram

Figure 2: Typical Backdrain Detail

APPENDICES

APPENDIX A
Field Exploration Program

APPENDIX B
Laboratory Testing Program

1.0 INTRODUCTION

This report presents the results of our geotechnical investigation for the proposed 3 Lot Minor Land Division for the construction of 3 single family residences at 504 Lockwood Lane in Santa Cruz County, California.

The purpose of our investigation was to provide information regarding the surface and subsurface soil and bedrock conditions, and based on our findings, provide geotechnical recommendations for the design and construction of the proposed 3 single family residences. Conclusions and recommendations related to site grading, drainage, conventional shallow foundations, slabs-on-grade, retaining structures, and pavements are presented herein.

1.1 Terms of Reference

CMAG Engineering, Inc.'s (CMAG) scope of work for this phase of the project included site reconnaissance, review of the subsurface exploration and laboratory testing performed by Butano Geotechnical Engineering, Inc., and preparation of this report.

The work was undertaken in accordance with CMAG's *Proposal for Geotechnical Services* dated August 9, 2014.

The recommendations contained in this report are subject to the limitations presented in Section 8.0 of this report.

1.2 Site Location

The project site is located on the east side of Highway 9 and west of Highway 17, southwest of Scotts Valley in Santa Cruz County, California. The site location is shown on the Location Map, Appendix A, Figure A-1.

1.3 Surface Conditions

The parcel is approximately 37,000 square feet in size and rectangular in shape. The parcel ascends from Lockwood Lane with a slight slope. An existing single family residence is located on the property. The property is vegetated with brush and scattered trees. A portion of the property has recently been cleared of brush and trees.

2.0 PROJECT DESCRIPTION

It is our understanding that the project consists of the construction of 3 new single family residences and associated improvements. The existing residence is to be removed prior to the construction of the proposed 3 single family residences. Anticipated construction for the proposed residences consists of wood frame walls and roofs, with raised wood floors founded on conventional shallow foundations with garage concrete slabs-on-grade. Exact wall, column, and foundation loads are unavailable, but are expected to be typical of such construction.

3.0 FIELD EXPLORATION AND LABORATORY TESTING PROGRAMS

Adrian L. Garner, PE, GE performed the field exploration and laboratory testing under Butano Geotechnical Engineering, Inc. in 2006. We have attached the field exploration and laboratory testing appendices to this report. Three borings were advanced to depths between 8.5± and 25.5± feet below the existing grades on September 6, 2006. Details of the field exploration program, including the Boring Logs, are presented in Appendix A. Details of the laboratory testing program are presented in Appendix B. Test results are presented on the Boring Logs and in Appendix B.

4.0 SUBSURFACE CONDITIONS AND EARTH MATERIALS

4.1 General

The geologic map of Santa Cruz County (Brabb, 1989) depicts the subject property as underlain by Santa Margarita Sandstone (Tsm; Upper Miocene) consisting of very thick bedded to massive thickly cross bedded yellowish-gray to white friable granular medium-to-fined-grained arkosic sandstone; locally calcareous and locally bituminous.

Three borings were advanced in the vicinity of the proposed single family residences. The subsurface profile consisted of highly weathered Santa Margarita Sandstone that exhibited characteristics of soil and not bedrock. Complete soil profiles are presented on the Boring Logs, Appendix A, Figures A-4 through A-6. The boring locations are shown on the Boring Location Plan, Figure A-2.

4.2 Santa Margarita Sandstone - Tsm

The subsurface profile generally consisted of silty sands and poorly graded sands with silt that varied in color, moisture content, and density. The near surface soils were generally very loose to loose increasing in density to medium dense with depth. The sand was generally fine to medium grained.

4.3 Groundwater

Groundwater was not encountered during the field exploration.

It should be noted that groundwater conditions, perched or regional, may vary with location and may fluctuate with variations in rainfall, runoff, irrigation, and other changes to the conditions existing at the time our field investigation was performed.

5.0 GEOTECHNICAL HAZARDS

5.1 General

In our opinion, the geotechnical hazards that could potentially affect the proposed project are:

- Seismic shaking

5.2 Seismic Shaking

The seismic hazard due to seismic shaking in California is high in many areas, indicative of the number of large earthquakes that have occurred historically. Intense seismic shaking may occur at the site during the design lifetime of the proposed structures from an earthquake along one of the local fault systems. Generally, the intensity of shaking will increase the closer the site is to the epicenter of an earthquake, however, seismic shaking is a complex phenomenon and may be modified by local topography and soil conditions. The transmission of earthquake vibrations from the ground into the structures may cause structural damage.

The County of Santa Cruz has adopted the seismic provisions set forth in the 2013 California Building Code (2013 CBC) to address seismic shaking. The seismic provisions in the 2013 CBC are minimum load requirements for the seismic design for the proposed structures. The provisions set forth in the 2013 CBC will not prevent structural and nonstructural damage from direct fault ground surface rupture, coseismic ground cracking, liquefaction and lateral spreading, seismically induced differential compaction, or seismically induced landsliding.

Table 1 has been constructed based on the 2013 CBC requirements for the seismic design of the proposed structures. The Site Class has been determined based on the field investigation and laboratory testing.

Table 1. Seismic Design Parameters - 2013 CBC

S_s	S_1	Site Class	F_a	F_v	S_{MS}	S_{M1}	S_{DS}	S_{D1}	PGA_M
1.500g	0.600g	D	1.0	1.5	1.500g	0.900g	1.000g	0.600g	0.524g

5.3 Collateral Seismic Hazards

In addition to seismic shaking, other seismic hazards that may have an adverse affect to the site and/or the structures are: fault ground surface rupture, coseismic ground cracking, seismically induced liquefaction and lateral spreading, seismically induced differential compaction, and seismically induced landsliding. It is our opinion that the potential for collateral seismic hazards to affect the site, and to damage the proposed structures is low.

6.0 DISCUSSIONS AND CONCLUSIONS

The site is generally underlain by silty sands and poorly graded sands with silt that vary from very loose to medium dense, however are generally very loose to loose in the upper 3+ feet. The near surface silty sands should be considered to be highly erodible.

Groundwater was not encountered during the course of our field exploration.

7.0 RECOMMENDATIONS

7.1 General

Based on the results of the field investigation, laboratory testing, and engineering analysis, it is our opinion, from the geotechnical standpoint, the subject site will be suitable for the proposed development provided the recommendations presented herein are implemented during grading and construction.

We recommend that the proposed single family residences be founded on conventional shallow foundation systems. To help alleviate the potential for differential settlement due to the very loose near surface silty sands beneath conventional shallow foundations, concrete slabs-on-grade, drive areas, and new fills, site preparation consisting of overexcavation and recompaction will be required. See Subsection 7.2.2 for earthwork recommendations.

To help alleviate the potential for surface water, and/or irrigation water to migrate beneath the proposed residences, and to alleviate the potential for erosion of the near surface soils to adversely affect the foundation systems, we recommend that the exterior footings be founded a minimum of 24 inches below finished grade.

7.2 Site Grading

7.2.1 Site Clearing

Prior to grading, the areas to be developed for structures, pavements and other improvements, should be stripped of any vegetation and cleared of any surface or subsurface obstructions, including any existing foundations, utility lines, basements, septic tanks, pavements, stockpiled fills, and miscellaneous debris.

Surface vegetation and organically contaminated topsoil should be removed from areas to be graded. The required depth of stripping will vary with the time of year the work is done and should be observed by the Geotechnical Engineer. It is generally anticipated that the required depth of stripping will be 6 to 12 inches.

Holes resulting from the removal of buried obstructions that extend below finished site grades should be backfilled with compacted engineered fill compacted to the requirements of Subsection 7.2.2.

7.2.2 Preparation of On-Site Soils

The results of the field investigation and laboratory testing indicate that the near-surface soils on the subject site are very loose to loose. In order to ensure uniform compression characteristics and to obviate any potential for differential settlements, site preparation, consisting of overexcavation and recompaction will be required prior to placement of conventional shallow foundations, concrete slabs-on-grade, drive areas, and new fills. The depths of overexcavation and recompaction recommended herein are subject to review during grading.

For conventional shallow foundations (including site retaining walls), the native soil should be overexcavated a minimum of 1 foot below the bottom of the footing, or 1.5 feet below existing grade, whichever is greater. The exposed surface should then be scarified, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The material which was removed should then be replaced with engineered fill compacted to a minimum of 90 percent relative compaction. This zone of reworking shall extend a minimum of 3 feet laterally beyond the conventional shallow foundation footprint.

For concrete slabs-on-grade, the native soil should be overexcavated a minimum of 1 foot below the bottom of the crushed rock, or 1.5 feet below existing grade, whichever is greater. The exposed surface should then be scarified, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The material which was removed should then be replaced with engineered fill compacted to a minimum of 90 percent relative compaction. This zone of reworking shall extend a minimum of 3 feet laterally beyond the concrete slabs-on-grade.

In drive areas (including concrete, asphalt, and non-permeable pavers), the native soil should be overexcavated to a minimum of 1 foot below the bottom of the aggregate base course, or 1.5 feet below existing grade, whichever is greater. The exposed surface should then be scarified, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The material which was removed should then be replaced as engineered fill compacted to a minimum of 90 percent relative compaction. The upper 6 inches of subgrade and all aggregate base and subbase in drive areas shall be compacted to achieve a minimum relative compaction of 95 percent. This zone of reworking should extend laterally a minimum of 2 feet beyond the drive areas.

Beneath new fills, the native soil should be removed to a minimum of 1.5 feet below existing grade. The exposed surface should then be scarified, moisture conditioned, and compacted to a minimum of 90 percent relative compaction. The material which was removed should then be replaced as engineered fill compacted to a minimum of 90 percent relative compaction.

The on-site soils may be used as engineered fill. The soil should be verified by a representative of CMAG in the field during grading operations. All soils, both existing on-site and imported, to be used as fill, should contain less than 3 percent organics and be free of debris and gravel over 2.5 inches in maximum dimension.

Imported fill material should be approved by a representative of CMAG prior to importing. Soils having a significant expansion potential should not be used as imported fill. **The Geotechnical Engineer should be notified not less than 5 working days in advance of placing any fill or base course material proposed for import.** Each proposed source of import material should be sampled, tested, and approved by the Geotechnical Engineer prior to delivery of any soils imported for use on the site.

All fill should be compacted with heavy vibratory equipment. Fill should be compacted by mechanical means in uniform horizontal loose lifts not exceeding 8 inches in thickness. The relative compaction and required moisture content shall be based on the maximum dry density and optimum moisture content obtained in accordance with ASTM D1557. **The Geotechnical Engineer should observe the overexcavations, and placement of engineered fill.**

Any surface or subsurface obstruction, or questionable material encountered during grading, should be brought immediately to the attention of the Geotechnical Engineer for proper processing as required.

7.2.3 Cut and Fill Slopes

Cut and Fill slopes are not anticipated for the project at this time. Cut and fill slopes may affect the stability of the site, and should be analyzed for overall stability and suitability by the Geotechnical Engineer if project requirements change.

7.2.4 Utility Trenches

Bedding material should consist of sand with SE not less than 30 which may then be jetted.

The on-site soils may be utilized for trench backfill. Imported fill should be free of organic material and gravel over 2.5 inches in diameter. Backfill of all exterior and interior trenches should be placed in thin lifts and mechanically compacted to achieve a relative compaction of not less than 95 percent in paved areas and 90 percent in other areas per ASTM D1557. Care should be taken not to damage utility lines.

Utility trenches that are parallel to the sides of a building should be placed so that they do not extend below a line sloping down and away at an inclination of 2:1 H:V (horizontal to vertical) from the bottom outside edge of all footings.

A 3 foot concrete plug should be placed in each trench where it passes under the exterior footings. Anti-seep collars (trench dams) should also be placed in utility trenches on steep slopes to prevent migration of water and sand.

Trenches should be capped with 1.5+ feet of impermeable material. Import material should be approved by the Geotechnical Engineer prior to its use.

Trenches must be shored as required by the local regulatory agency, the State Of California Division of Industrial Safety Construction Safety Orders, and Federal OSHA requirements.

7.2.5 Vibration During Compaction

The neighboring residences are within close proximity to the proposed single family residences. The contractor should take all precautionary measures to minimize vibration on the site during grading operations. This may require that the engineered fill be placed in thin lifts using a static roller or hand operated equipment. It is the contractor's responsibility to ensure that the process in which the engineered fill is placed does not adversely affect the neighboring parcels.

7.2.6 Excavating Conditions

We anticipate that excavation of the on-site soils may be accomplished with standard earthmoving and trenching equipment.

Caving, due to the cohesionless nature of the on-site soils, should be anticipated during excavation.

7.2.7 Surface Drainage

Pad drainage should be designed to collect and direct surface water away from structures to approved drainage facilities. A minimum gradient of 2+ percent should be maintained and drainage should be directed toward approved swales or drainage facilities. Concentrations of surface water runoff should be handled by providing the necessary structures, paved ditches, catch basins, etc.

All roof eaves should be guttered with the outlets from the downspouts provided with adequate capacity to carry the storm water away from the structures to reduce the possibility of soil saturation and erosion.

Drainage patterns approved at the time of construction should be maintained throughout the life of the structures. The building and surface drainage facilities must not be altered nor any grading, filling, or excavation conducted in the area without prior review by the Geotechnical Engineer.

Irrigation activities at the site should be controlled and reasonable. Planter areas should not be sited adjacent to walls without implementing approved measures to contain irrigation water and prevent it from seeping into walls and under foundations and slabs-on-grade.

The surface soils are classified as highly erodible. Therefore, the finished ground surface should be planted with erosion resistant landscaping and ground cover and continually maintained to minimize surface erosion.

7.3 Foundations

7.3.1 Conventional Shallow Foundations

We recommend that conventional shallow foundations be founded on compacted engineered fill per Subsection 7.2.2.

To help alleviate the potential for surface water, and/or irrigation water to migrate beneath the proposed residences, and to alleviate the potential for erosion of the near surface soils to adversely affect the foundation systems, we recommend that the exterior footings be founded a minimum of 24 inches below finished grade.

Footing widths should be based on the allowable bearing value but not less than 12 inches for 1 story and 15 inches for 2 story structures. Interior footings depths should be at least 12 inches for 1 story and 18 inches for 2 story sections. Embedment depths should not be allowed to be affected adversely, such as through erosion, softening, digging, etc. Should local building codes require deeper embedment of the footings or wider footings, the codes must apply.

The allowable bearing capacity used should not exceed 3,000 psf. The allowable bearing capacity may be increased by one-third in the case of short duration loads, such as those induced by wind or seismic forces. In the event that footings are founded in structural fill consisting of imported materials, the allowable bearing capacities will depend on the type of these materials and should be re-evaluated.

A passive pressure of 290 psf/ft (equivalent fluid pressure) may be assumed for design purposes. Neglect passive pressure in the top 18 inches of soil. Passive pressures may be increased by one-third for seismic loading. A friction coefficient of 0.4, between near surface soil and rough concrete may be assumed for design purposes. Where both friction and the passive resistance are utilized for sliding resistance, either of the values indicated should be reduced by one-third.

Footing excavations should be observed by the Geotechnical Engineer before steel reinforcement is placed and concrete is poured.

7.3.2 Concrete Slabs-on-Grade

We recommend that concrete slab-on-grade be founded on compacted engineered fill per Subsection 7.2.2. The subgrade should be proof-rolled just prior to construction to provide a firm, relatively unyielding surface, especially if the surface has been loosened by the passage of construction traffic.

The slab-on-grade should be underlain by a minimum 4 inch thick capillary break of clean crushed rock. It is recommended that neither Class II baserock nor sand be employed as the capillary break material. Where moisture sensitive floor coverings are anticipated or vapor transmission may be a problem, a vapor retarder should be placed between the granular layer and the floor slab in order to reduce moisture condensation under the floor coverings. The vapor retarder should be specified by the slab designer. It should be noted that conventional slab-on-grade construction is not waterproof. Under-slab construction consisting of a capillary break and vapor retarder will not prevent moisture transmission through the slab-on-grade. CMAG does not practice in the field of moisture vapor transmission evaluation or mitigation. Where moisture sensitive floor coverings are to be installed, a waterproofing expert should be consulted for their recommended moisture and vapor protection measures.

7.3.3 Settlements

Total and differential settlements beneath conventional shallow foundations are expected to be within tolerable limits. Vertical movements are not expected to exceed 1 inch. Differential movements are expected to be within the normal range ($\frac{1}{2}$ inch) for the anticipated loads and spacings. These preliminary estimates should be reviewed by the Geotechnical Engineer when foundation plans for the proposed structures become available.

7.4 Retaining Structures

7.4.1 General

Site retaining walls may be founded on shallow foundations per the recommendations of Subsections 7.2.2 and 7.3.1.

7.4.2 Lateral Pressure Due to Earthquake Motions

For design purposes, the lateral force on retaining walls due to earthquake motions is $6H^2$ lbs/horizontal foot, acting at a point $\frac{1}{3}H$ above the wall base, where H is the height of the wall in feet.

7.4.3 Lateral Earth Pressures

The lateral earth pressures presented in Table 2 are recommended for the design of retaining structures with a backdrain and backfill consisting of the native soils.

Table 2. Lateral Earth Pressures

Soil Profile (H:V)	Equivalent Fluid Pressure (psf/ft)	
	Active Pressure	At-Rest Pressure
Level	45	77
6:1	60	90
3:1	75	102

Pressure due to any surcharge loads from adjacent footings, traffic, etc., should be analyzed separately. Pressures due to these loading can be supplied upon receipt of the appropriate plans and loads. Refer to Figure 2.

7.4.4 Backfill

Backfill should be placed under engineering control. Backfill should be compacted per Subsection 7.2.2, however, precautions should be taken to ensure that heavy compaction equipment is not used immediately adjacent to walls, so as to prevent undue pressures against, and movement of, the walls.

It is recommended that granular, or relatively low expansivity, backfill be utilized, for a width equal to approximately 1/3 times the wall height, and not less than 1.5 feet, subject to review during construction.

The granular backfill should be capped with at least 12 inches of relatively impermeable material.

The use of water-stops/impermeable barriers and appropriate waterproofing should be considered for any basement construction, and for building walls which retain earth.

7.4.5 Backfill Drainage

Backdrains should be provided in the backfill, or weepholes/weepslits should be provided in retaining walls. (It is recommended that backdrains be provided for walls over 4+ feet high, for retaining walls which form part of a building structure, and where any staining or efflorescence due to dripping from weepholes/weepslits would be aesthetically unacceptable.)

Backdrains should consist of 4 inch diameter SDR 35 PVC perforated pipe or equivalent, embedded in Caltrans Class 1, Type A permeable drain rock. The drain should be a minimum of 18 inches in thickness and should extend to within 12 inches from the surface. The upper 12 inches should be capped with native soils. Mirafi 140N filter fabric should be placed between the drain rock and the native soil cap. The pipe should be 4± inches above the trench bottom; a gradient of 2± percent being provided to the pipe and trench bottom; discharging into suitably protected outlets. See Figure 2 for the standard detail for the backdrain.

Perforations in backdrains are recommended as follows: 3/8 inch diameter, in 2 rows at the ends of a 120 degree arc, at 3 inch centers in each row, staggered between rows, placed downward.

Backdrains should be observed by the Geotechnical Engineer after placement of bedding and pipe and prior to the placement of clean crushed gravel.

An unobstructed outlet should be provided at the lower end of each segment of backdrain. The outlet should consist of an unperforated pipe of the same diameter, connected to the perforated pipe and extended to a protected outlet at a lower elevation on a continuous gradient of at least 1 percent.

7.5 Plan Review

The recommendations presented in this report are based on preliminary design information for the proposed project and on the findings of our geotechnical investigation. When completed, the Grading Plans, Foundation Plans and design loads should be reviewed by CMAG prior to submitting the plans and contract bidding. Additional field exploration and laboratory testing may be required upon review of the final project design plans.

7.6 Observation and Testing

Field observation and testing must be provided by a representative of CMAG to enable them to form an opinion regarding the adequacy of the site preparation, the adequacy of fill materials, and the extent to which the earthwork is performed in accordance with the geotechnical conditions present, the requirements of the regulating agencies, the project specifications, and the recommendations presented in this report. Any earthwork performed in connection with the subject project without the full knowledge of, and not under the direct observation of CMAG will render the recommendations of this report invalid.

C MAG should be notified **at least 5 working days** prior to any site clearing or other earthwork operations on the subject project in order to observe the stripping and disposal of unsuitable materials and to ensure coordination with the grading contractor. During this period, a preconstruction meeting should be held on the site to discuss project specifications, observation and testing requirements and responsibilities, and scheduling.

8.0 LIMITATIONS

The recommendations contained in this report are based on our field explorations, laboratory testing, and our understanding of the proposed construction. The subsurface data used in the preparation of this report was obtained from the borings drilled during our field investigation. Variation in soil, geologic, and groundwater conditions can vary significantly between sample locations. As in most projects, conditions revealed during construction excavation may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the Project Geotechnical Engineer and the Geologist, and revised recommendations be provided as required. In addition, if the scope of the proposed construction changes from the described in this report, our firm should also be notified.

Our investigation was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report.

This report is issued with the understanding that it is the responsibility of the Owner, or of his Representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.

This firm does not practice or consult in the field of safety engineering. We do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.

The findings of this report are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether they be due to natural events or to human activities on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, this report may become invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

The scope of our services mutually agreed upon did not include any environmental assessment or study for the presence of hazardous to toxic materials in the soil, surface water, or air, on or below or around the site. CMAG is not a mold prevention consultant; none of our services performed in connection with the proposed project are for the purpose of mold prevention. Proper implementation of the recommendations conveyed in our reports will not itself be sufficient to prevent mold from growing in or on the structures involved.

REFERENCES

American Society of Civil Engineers (2010). *Minimum Design Loads for Buildings and Other Structures*. ASCE Standard 7-10.

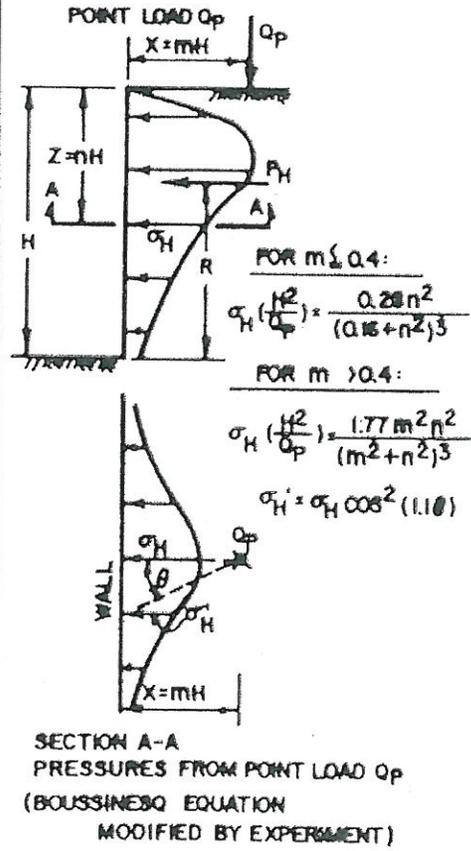
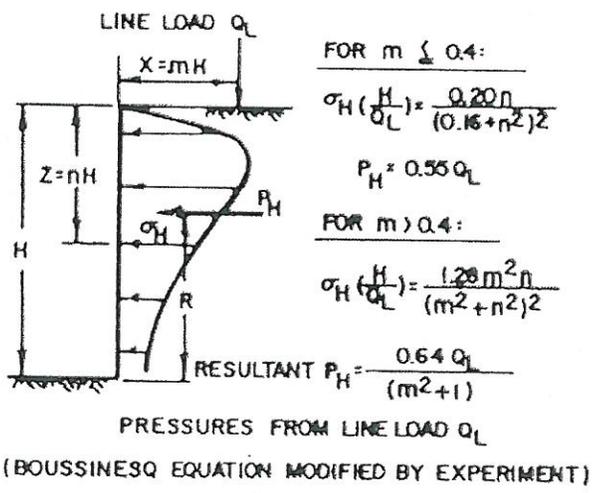
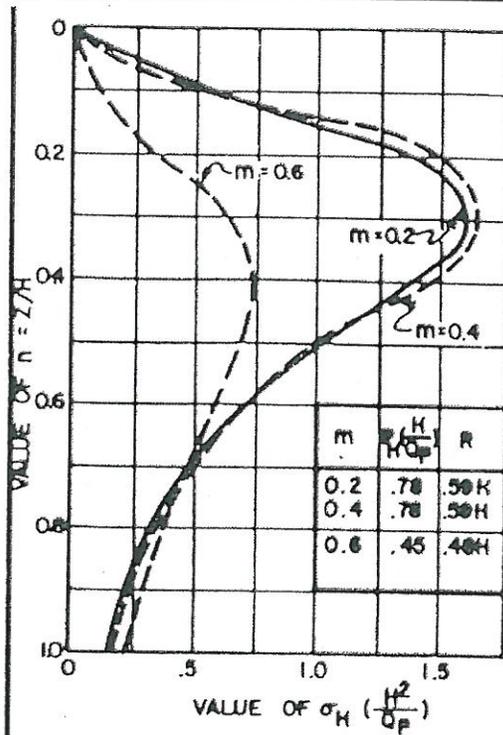
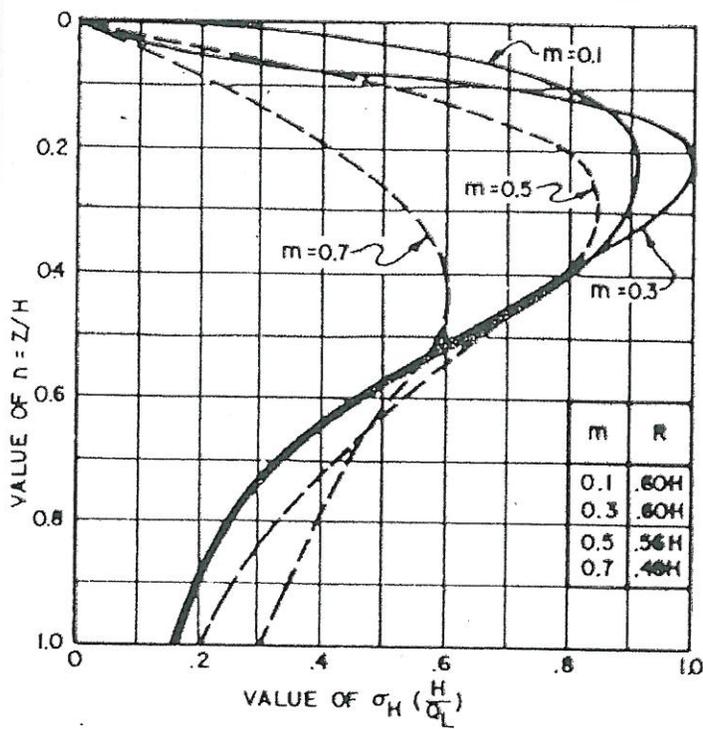
ASTM International (2008). *Annual Book of ASTM Standards, Section Four, Construction*. Volume 4.08, Soil and Rock (I): D 430 - D 5611.

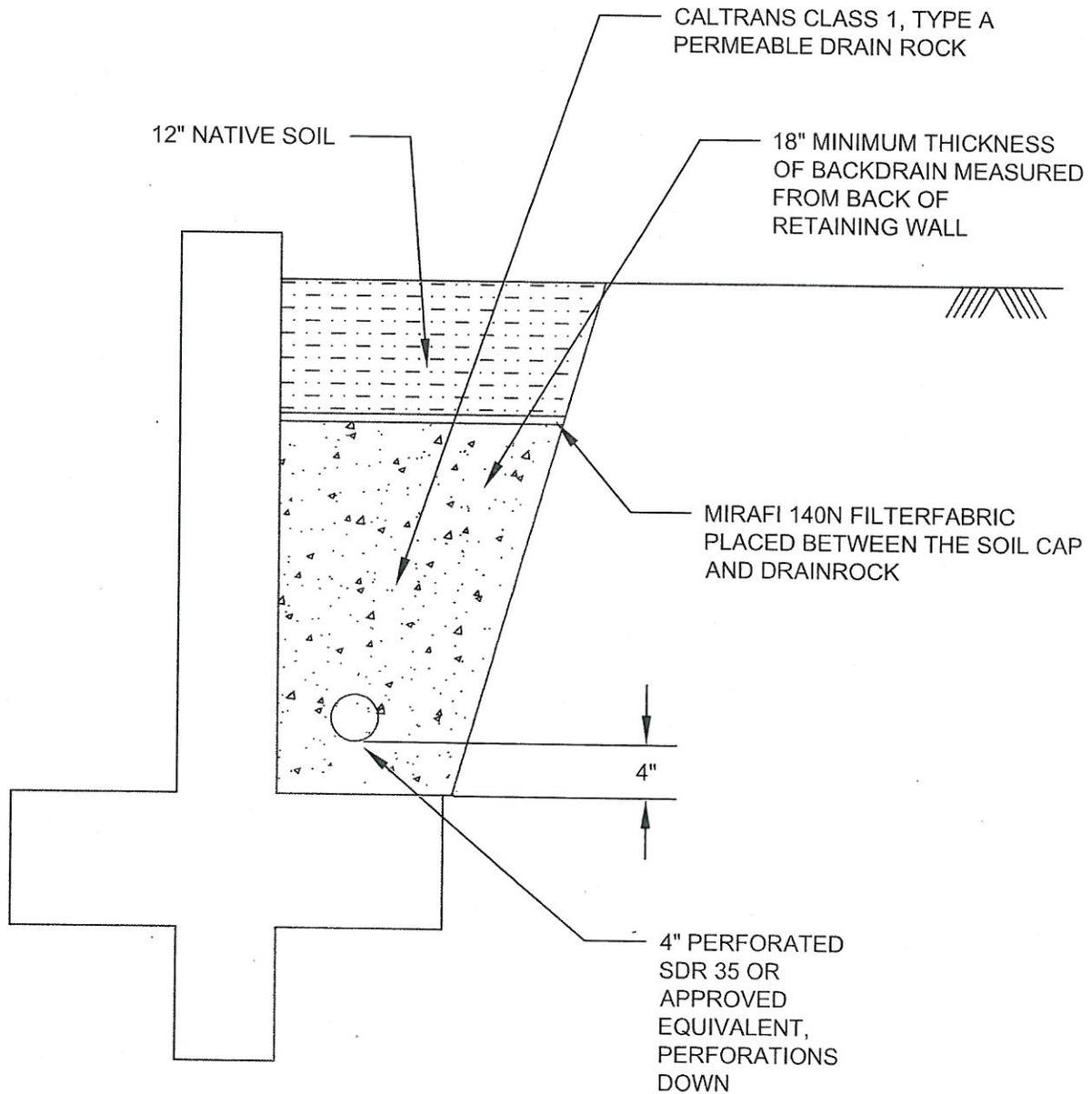
ASTM International (2008). *Annual Book of ASTM Standards, Section Four, Construction*. Volume 4.09, Soil and Rock (II): D 5714 - Latest.

Brabb, E.E. (1989). *Geologic Map of Santa Cruz County, California*. U.S. Geological Survey Miscellaneous Investigation Series, Map I-1905, scale 1:62500.

CMAG Engineering, Inc. (August 9, 2014). *Proposal for Geotechnical Services, Proposed 3 Lot Minor Land Division, 504 Lockwood Lane, Scotts Valley, Santa Cruz County, California APN 067-041-14*. Proposal No. P14-42.

International Code Council (2013). *California Building Code*. Volume 2.





NOTES:

1. DRAWING IS NOT TO SCALE
2. 2+ PERCENT TO PIPE AND TRENCH BOTTOM
3. PERFORATED SDR 35 PVC PIPE, OR APPROVED EQUIVALENT, CONNECTED TO CLOSED CONDUITS THAT DISCHARGE TO AN APPROVED LOCATION
4. INSTALL CLEAN OUTS AT APPROVED LOCATIONS

CMAG ENGINEERING

TYPICAL BACKDRAIN DETAIL

FIGURE

2

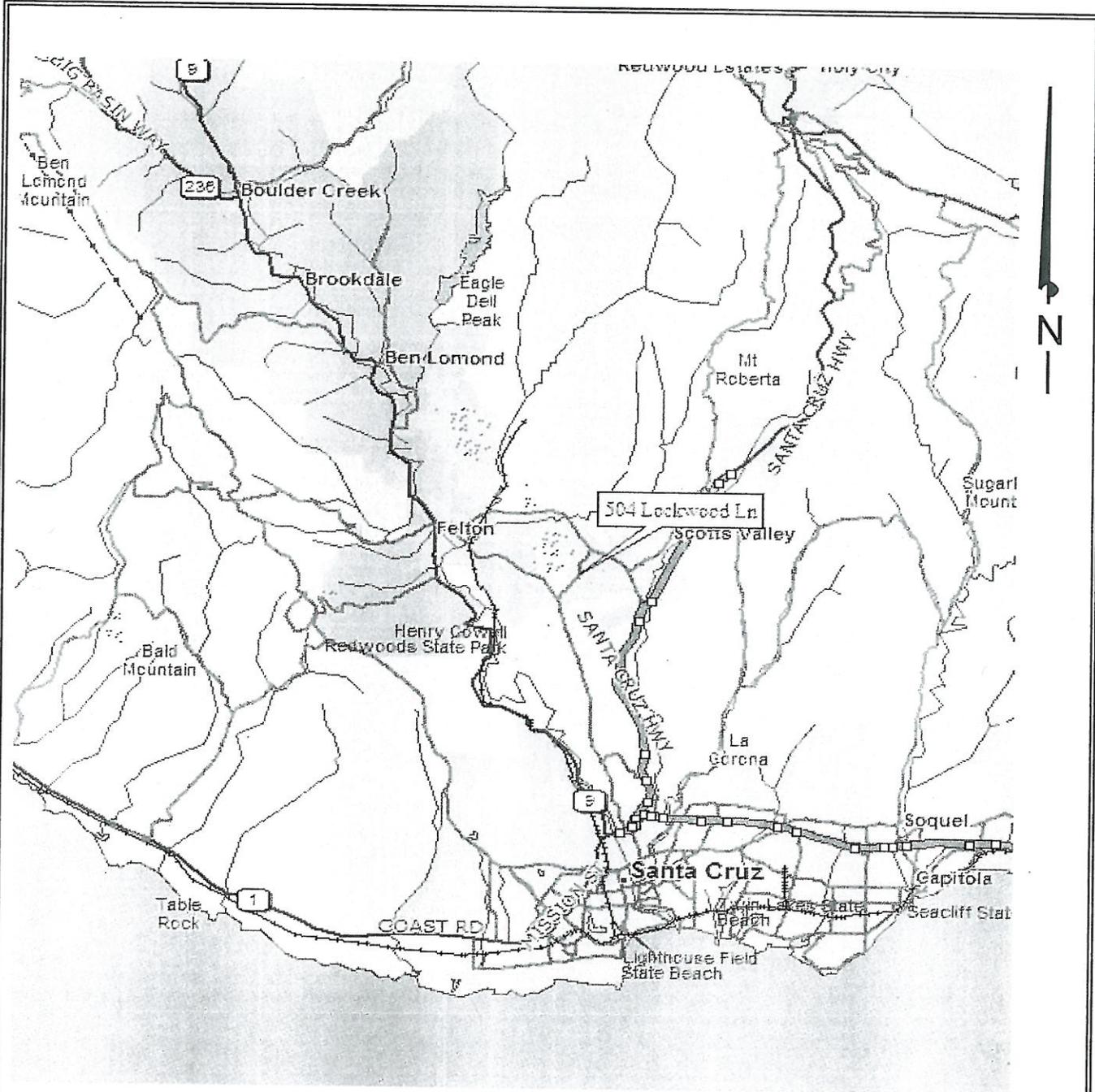
APPENDIX A

FIELD EXPLORATION PROGRAM

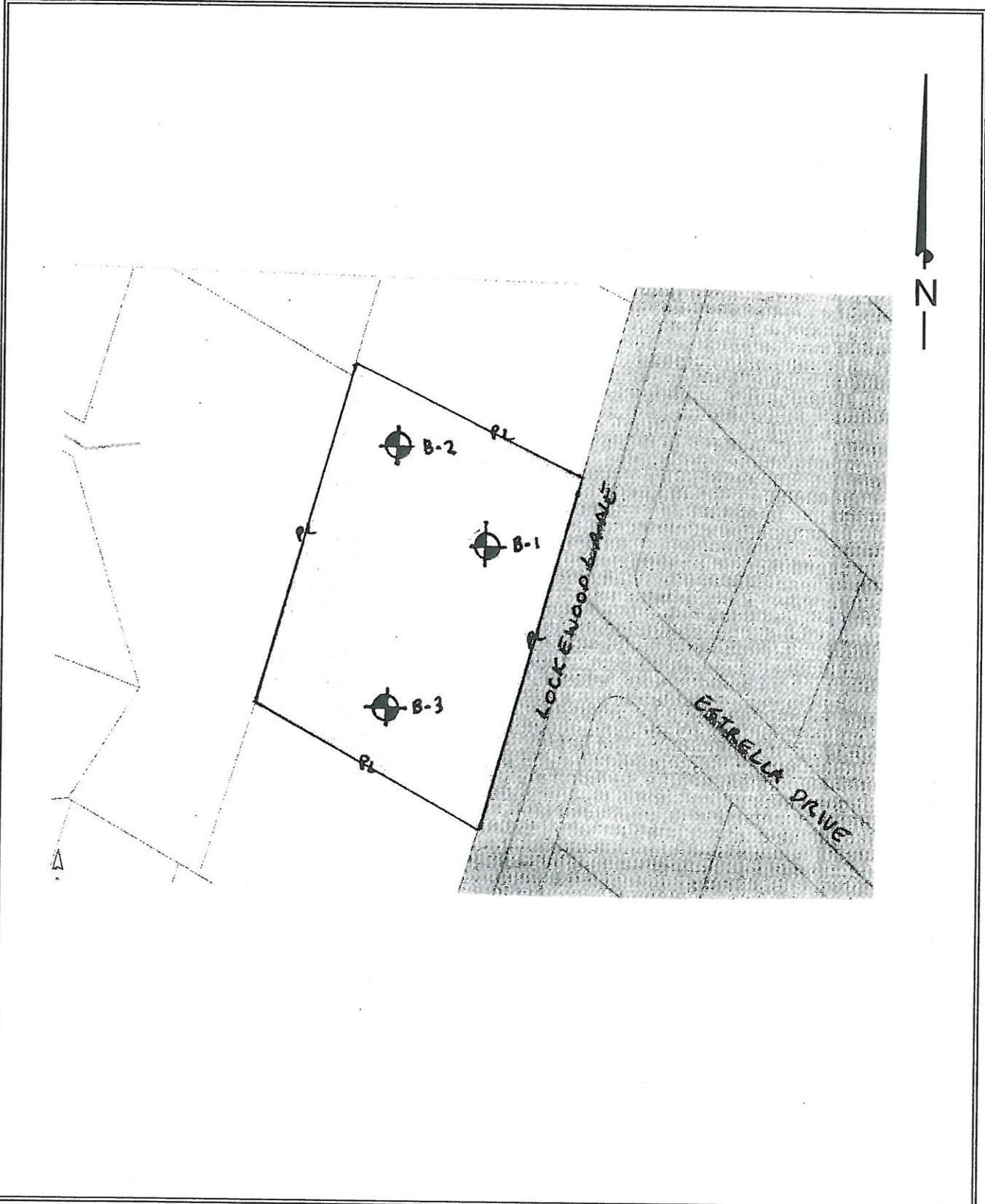
A-1.	Field Exploration Procedures	Page A-1
A-2.	Site Location Plan	Figure A-1
A-3.	Boring Location Plan	Figure A-2
A-4.	Key to Logs	Figure A-3
A-5.	Logs of the Borings	Figures A-4 through A-6

FIELD EXPLORATION PROCEDURES

- A-1. Subsurface conditions were explored by drilling 3 borings to depths between 25.5± and 8.5± feet below the existing grade. The borings were drilled with a truck mounted drill rig equipped with 4 inch diameter solid stem augers. The Key to The Logs and the Logs of the Borings are included in Appendix A, Figures A-3 through A-6. The approximate location of the borings are shown on the Boring Location Plan, Figure A-2.
- A-2. The drill holes were located in the field by pacing from known landmarks. Their locations as shown are therefore within the accuracy of such measurement.
- A-3. The soils encountered in the borings were continuously logged in the field by a representative of Butano Geotechnical Engineering, Inc. Bulk and relatively undisturbed soil samples for identification and laboratory testing were obtained in the field. These soils were classified based on field observations and laboratory tests. The classification is in accordance with the Unified Soil Classification System (Figure A-3).
- A-4. Representative soil samples were obtained by means of a drive sampler, the hammer weight and drop being 140 lb and 30 inches, respectively. These samples were recovered using a 3 inch outside diameter Modified California Sampler or a 2 inch outside diameter Terzaghi Sampler. The number of blows required to drive the samplers 12 inches are indicated on the Boring Logs. The penetration test data has been normalized to a 2 inch outside diameter sampler and presented as N_{60} values. The N_{60} values are also indicated on the Boring Logs.
- A-5. Groundwater was not encountered during our field investigation.
- A-6. The borings were backfilled with the cuttings.



BUTANO GEOTECHNICAL ENGINEERING, INC.	SITE LOCATION PLAN	FIGURE A-1
	504 Lockwood Lane	



<p>BUTANO GEOTECHNICAL ENGINEERING, INC.</p>	<p>BORING LOCATION PLAN 504 Lockwood Lane</p>	<p>FIGURE A-2</p>
--	---	-----------------------

KEY TO LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM

PRIMARY DIVISIONS		GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More than half of the material is larger than the No. 200 sieve	GRAVELS More than half of the coarse fraction is larger than the No. 4 sieve	CLEAN GRAVELS (Less than 5% fines)	GW Well graded gravels, gravel-sand mixtures, little or no fines
		GRAVEL WITH FINES	GP Poorly graded gravels, gravel-sand mixtures, little or no fines
		GC	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
		SC	Clayey gravels, gravel-sand-clay mixtures, plastic fines
	SANDS More than half of the coarse fraction is smaller than the No. 4 sieve	CLEAN SANDS (Less than 5% fines)	SW Well graded sands, gravelly sands, little or no fines
		SAND WITH FINES	SP Poorly graded sands, gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures, non-plastic fines
		SC	Clayey sands, sand-clay mixtures, plastic fines
FINE GRAINED SOILS More than half of the material is smaller than the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50	ML	Inorganic silts and very fine sands, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

GRAIN SIZE LIMITS

SILT AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		
	No. 200	No. 40	No. 10	No. 4	3/4 in.	3 in.	12 in.
US STANDARD SIEVE SIZE							

RELATIVE DENSITY	
SAND AND GRAVEL	BLOWS/FT*
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY	
SILT AND CLAY	BLOWS/FT*
VERY SOFT	0 - 2
SOFT	2 - 4
FIRM	4 - 8
STIFF	8 - 16
VERY STIFF	16 - 32
HARD	OVER 32

MOISTURE CONDITION
DRY
MOIST
WET

* Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch I.D.) split spoon (ASTM D-1586).

BUTANO GEOTECHNICAL ENGINEERING, INC.

FIGURE

A-3

LOG OF EXPLORATORY BORING

Project No.: 06-149-SC	Boring: B1
Project: 504 Lockwood Lane Santa Cruz County, California	Location: East of Existing Residence
Date: September 6, 2006	Elevation:
Logged By: ALG	Method of Drilling: Truck Mounted Drill Rig, 4in. Solid Stem Auger, 140lb. Safety Hammer

Depth (ft.)	Soil Type	Undisturbed	Bulk	<input checked="" type="checkbox"/> 2" Ring Sample <input type="checkbox"/> 2.5" Ring Sample <input checked="" type="checkbox"/> Bulk Sample <input type="checkbox"/> Terzaghi Split Spoon Sample <input type="checkbox"/> Static Water Table	Blows / Foot	N ₆₀	Dry Density (pcf)	Moisture Content (%)	Direct Shear		Other Tests
									c (psf)	φ°	
Description											
	SM										
	SM				13	4		3.4			
5					14	10		2.5			
	SP-SM				15	12		2.9			
10											
	SP-SM				14	13		3.6			
15											
	SP-SM				22	24		5.8			
20											
	SP-SM				24	27		7.0			
25											
	Boring Terminated @ 25.5± ft. Groundwater Not Encountered. Boring Backfilled With Cuttings.										
30											
35											

BUTANO GEOTECHNICAL ENGINEERING, INC.

FIGURE

A-4

LOG OF EXPLORATORY BORING

Project No.: 06-149-SC	Boring: B2	
Project: 504 Lockewood Lane Santa Cruz County, California	Location: West of Existing Residence	
Date: September 6, 2006	Elevation:	
Logged By: ALG	Method of Drilling: Truck Mounted Drill Rig, 4in. Solid Stem Auger, 140lb. Safety Hammer	

Depth (ft.)	Soil Type	Undisturbed	Bulk	<div style="display: flex; justify-content: space-around; font-size: small;"> <div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div> 2" Ring Sample <div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(-45deg);"></div> 2.5" Ring Sample <div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(90deg);"></div> Bulk Sample </div>	Blows / Foot	N ₆₀	Dry Density (pcf)	Moisture Content (%)	Direct Shear		Other Tests
									c (psf)	φ °	
Description											
0-1	SM										
1-2	SM				7	5		2.7			
2-3	SM				11	8		3.2			
3-5	SP-SM										
5-10	SM				15	11		3.5			
10-11	SP-SM										
11-15	SM				14	12		4.8			
15-35	Boring Terminated @ 11.5± ft. Groundwater Not Encountered. Boring Backfilled With Cuttings.										

BUTANO GEOTECHNICAL ENGINEERING, INC.

FIGURE
A-5

LOG OF EXPLORATORY BORING

Project No.: 06-149-SC	Boring: B3
Project: 504 Lockwood Lane Santa Cruz County, California	Location: South of Existing Residence
Date: September 6, 2006	Elevation:
Logged By: ALG	Method of Drilling: Truck Mounted Drill Rig, 4in. Solid Stem Auger, 140lb. Safety Hammer

Depth (ft.)	Soil Type	Undisturbed	Bulk	<div style="display: flex; justify-content: space-around; font-size: small;"> <div style="border: 1px solid black; width: 15px; height: 15px; border-bottom-right-radius: 5px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="border: 1px solid black; width: 15px; height: 15px; border-bottom-right-radius: 5px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="border: 1px solid black; width: 15px; height: 15px; border-bottom-right-radius: 5px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="border: 1px solid black; width: 15px; height: 15px; border-bottom-right-radius: 5px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="display: flex; justify-content: space-around; font-size: x-small;"> <div style="border: 1px solid black; width: 15px; height: 15px; border-bottom-right-radius: 5px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="border: 1px solid black; width: 15px; height: 15px; border-bottom-right-radius: 5px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div>	Blows / Foot	N ₆₀	Dry Density (pcf)	Moisture Content (%)	Direct Shear		Other Tests										
									c (psf)	φ °											
	SM																				
	SM																				
5	SM																				
	SP-SM																				
	SM																				
10	Boring Terminated @ 8.5± ft. Groundwater Not Encountered. Boring Backfilled With Cuttings.																				
15																					
20																					
25																					
30																					
35																					

BUTANO GEOTECHNICAL ENGINEERING, INC.

FIGURE
A-6

APPENDIX B

LABORATORY TESTING PROGRAM

B-1. Laboratory Testing Procedures

Page B-1

LABORATORY TESTING PROCEDURES

B-1. Classification

Soils were classified according to the Unified Soil Classification System in accordance with ASTM D 2487 and D 2488. Moisture content and dry density determinations were made for representative, relatively undisturbed samples in accordance with ASTM D 2216. Results of moisture-density determinations, together with classifications, are shown on the Boring Logs, Figures A-4 through A-6.



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

May 11, 2015

Richard Hochler
325 Canham Rd.
Scotts Valley, CA 95066

**Subject: Review of Geotechnical Investigation by CMAG Engineering, Inc.
Dated September 10, 2014, Project No. 14-125-SC
APN 067-041-14, Application No. REV141103**

Dear Mr. Hochler,

The purpose of this letter is to inform you that the Planning Department has accepted the subject report and the following items shall be required:

1. All construction shall comply with the recommendations of the report.
2. Final plans shall reference the report and include a statement that the project shall conform to the report's recommendations.
3. After building permit plans are prepared that are acceptable to all reviewing agencies, please submit a signed and stamped *Soils (Geotechnical) Engineer Plan Review Form* to Environmental Planning. *Please note that the plan review form must reference the final plan set by last revision date.* Any updates to report recommendations necessary to address conflicts between the report and plans must be provided via a separate addendum to the soils report.

The author of the report shall sign and stamp the completed form. An electronic copy of this form may be found on our website: www.sccoplanning.com, under "Environmental", "Geology & Soils", "Assistance & Forms", "Soils Engineer Plan Review Form".

4. Please submit two original, wet-signed copies of the soils report with the building permit application.
5. Please submit grading and drainage plans prepared by a licensed civil engineer with the building permit application. The plan should provide sufficient detail to illustrate compliance with all soils report recommendations, including those for "Preparation of Onsite Soils", (overexcavation and recompaction beneath foundations, slabs-on-grade, driveway and new fill areas), as well as "Surface Drainage" recommendations, including minimum required surface drainage gradients away from foundations for positive drainage.

(over)

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the *Notice to Permits Holders* (attached). Please note: Electronic copies of all forms required to be completed by the Geotechnical Engineer may be found on our website: www.sccoplanning.com, under "Environmental", "Geology & Soils", "Assistance & Forms".

Our acceptance of the report is limited to its technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm

Please call the undersigned at (831) 454-5121 if we can be of any further assistance.

Sincerely,



Carolyn Burke
Civil Engineer

Cc: Jessica Duktig, Environmental Planning
Annette Olson, Project Planner
CMAG Engineering, Inc.



City of Scotts Valley

Public Works Department
One Civic Center Drive Scotts Valley, California 95066
Phone 831 438-5854 Facsimile 831 439-9748

August 21st, 2014

Rick Hochler
325 Canham Rd
Scotts Valley, CA 95066

Re: APN 067-041-14

This is a "Will Serve Letter" for the above stated property APN 067-041-14, address 504 Lockwood Lane in the County of Santa Cruz. With regard to the sewer hook-up(s) for this property being in the County of Santa Cruz, your property is authorized for connection to Scotts Valley City sewer.

Property owner must submit all improvement plans and any other applications and fees that the City of Scotts Valley requires prior to having the intended property(s) connected to sewer.

Sincerely,

Kimarie Jones
Engineering Tech



SAN LORENZO VALLEY WATER DISTRICT

13060 Highway 9 • Boulder Creek, CA 95006-9119

Office (831) 338-2153 • Fax (831) 338-7986

Website: www.slvwd.com

October 13, 2014

Mr. Hochler
325 Canham Rd
Scotts Valley, CA 95066

Subject: Request for Meter Review
APN: 67-041-14

Dear Mr. Hochler:

The District has on file your request for meter service on the above parcel.

Your request has been:

- Approved. Please come to the District to pay your connection charges.
- Approved. Please bring your plumbing plans and sprinkler system flow requirement to the District to determine the cost of the water connection.
- Conditions. Please contact the District office to discuss and make necessary arrangements.
- Denied. Please contact the District office to discuss this meter request if you have any questions.

- **Approval can be withdrawn at any time.**
- **Water service is never guaranteed until service has been approved, sized and all fees paid.**
- **Any addition of plumbing fixtures and/or residential fire sprinkler system to the existing water service requires an additional review by District staff and approval for compliance with meter sizing District Ordinances.**

If you have any questions regarding this matter, please contact our office.

Sincerely,

Stephanie Hill
Finance Manager

DOMESTIC or JOINT DOMESTIC/RESIDENTIAL FIRE SERVICE METER REVIEW

Request Date 9/30/14 APN 67-041-14 (504 LOCKWOOD LN.)

Why CUSTOMER TO DO MINOR LAND DIVISION - **ORIGINAL**

Existing water sources: None Well Spring Meter Account # 110 225 011

Owner's Name RICK HOCHLER ^{5/8"}

Existing Units 1
TEAR DOWN/REBUILD EXIS,
Units to be built 2 NEW

MAIL TO: RICK HOCHLER

325 CANHAM RD.

(GIS) Pad Elevation +594

SCOTTS VALLEY, CA 95066

Phone 439-8990
(C) 818-0919

ENGINEERING REVIEW: Date 10/1/14 Reimbursement Agreement for Parcel —
- EXISTING 5/8" METER - 6" MAIN FRONTING PARCEL In/Out District IN
- CUSTOMER CONSIDERING SPLITTING LOT (GIS) Tank Elevation +874
INTO 3 PARCELS, TEARING DOWN EXISTING
HOUSE AND BUILDING 3 NEW HOUSES
- PARCEL IS OUT OF S.V. CITY LIMITS
- + 120 PSI @ PARCEL
Main Size 6" AC
Zone 22
PROBATION
ROB MENZIES
Engineering Department

FIELD OPERATION REVIEW: Date 10/07/2014 Backflow Needed —
NO OPERATIONAL PROBLEMS OR FOR SERVICE DC — RP —
Amh
Operations Superintendent

WATERSHED ANALYST REVIEW: Date —
—
Watershed Analyst

MANAGER REVIEW: Date 10/07/2014 Approved Conditions — Denied —
*PROVIDE OR PARCEL SPLIT, METER SIZING -
OK FOR SERVICE.
Amh
District Manager

SECOND MANAGER REVIEW: Date — Approved — Agreement —
—
District Manager



Drainage Review

Routing No: 3 Review Date: 04/17/2015

ANNETTE OLSON (AOLSON) : Complete

Third Routing-- Complete

Application with preliminary drainage study dated January 8, 2015 and plans dated 3/17/15 by Robert L. DeWitt and Associates has been received. Please address the following prior to final map recordation:

Conditions of Approval/Compliance Comments:

- 1) Either provide an evaluation of the drainage facilities within the City of Scotts Valley maintained Lockwood Lane or provide a letter from the City accepting the development without evaluation.
- 2) Sheet P3 shows a new 12 inch culvert proposed at the rebuilt driveway entrance. Provide analysis demonstrating that this is an appropriately sized culvert based on the upstream watershed area and City of Scotts Valley standards.
- 3) Provide final grading, drainage, surfacing and mitigation information for the proposed improvements that will be built with the land division (common driveway, culvert, etc.). Per Part 3, Section C.1.c of the CDC and based on different scenarios presented on sheet P4, this project is considered a large redevelopment project. As such, the project is required to provide mitigations for pollutant and hydrologic impacts due to development. These mitigations shall include Low Impact Development (LID) measures that emphasize minimization of impacts as a first priority consistent with the general plan for minimizing impervious area impacts. The project analysis must demonstrate compliance with sections C.2 and C.3.a, b and c of the CDC.
 - a. Section C.2 Provide a narrative describing which pollutant generating activities and sources are proposed on the project site and how their impacts will be mitigated. Show these on a site map/plan. The map/plan should include or reference recommendations from the California Stormwater Quality Association (CASQA) BMP Handbook for New Development and Redevelopment or equivalent.
 - b. Section C.3.a: Based on the preliminary drainage study the project site is adequate for retaining runoff from both the 2 and 10 year storms. The project should be conditioned to retain and infiltrate runoff from the 2 and 10 year storms so that runoff leaving the site will not exceed predevelopment rates. The preliminary study further suggests that the driveway areas will be utilized for stormwater mitigation. Please note that Section I of the CDC allows a maximum design saturated permeability of 200 mm/hr (8 inches/hr) to be used when sizing retention facilities. The preliminary study used rates higher than allowed. If retention will also be used to mitigate for the 10 year storm as it appears feasible, the release rate should be updated to match the expected



Drainage Review

Routing No: 3 Review Date: 04/17/2015

ANNETTE OLSON (AOLSON) : Complete

infiltration rate when determining the storage volume to provide.

- c. Section C.3.a: Based on the assessment described in Comment 1 above, if downstream inadequacies are identified the project may be required to include downstream improvements or to provide on-site mitigations beyond the County minimum standards.
 - d. Section C.3.b: Based on the preliminary drainage study this project will retain and infiltrate the 2 year storm in order to minimize stormwater pollutants of concern.
 - e. Section C.3.c: Please include a narrative introduction to the concept of stormwater management on the site in the Stormwater Management Report that addresses each of the Site Design and Runoff Reduction measures called for in this section.
- 4) Provide grading, drainage, surfacing, and mitigation information for the proposed individual lots for impact and mitigation. While the design for the mitigation facilities on the individual lots does not need to be completed prior to final map approval, the proposed mitigation strategy(ies) needs to be identified and demonstrated to be feasible.
- 5) Provide final stormwater management plans that are adequately detailed for construction and that demonstrate compliance with the CDC. Design should include provisions for safe overflow, flow control sizing, capacity analysis, treatment, pollution prevention, contaminate screening, drain time and vector control assessment. Plans should clearly describe how runoff from all project areas that are to be constructed as part of the land division (roof, hardscapes, landscapes, rear yards, etc.) will be routed and should include details such as: surface and invert elevations, slopes, surface details, flow control structures, clean-out facilities at pipe connections/grade/direction changes, materials, installation requirements, compaction/decompaction requirements, etc.
- 6) Please confirm with the water department that the water service lines locations relative to the stormwater management is acceptable and in conformance with state and local standards.
- 7) Storm drainage easements should be provided for all common drainage facilities. The final map should clearly depict these easement areas, specifically state that these easements are to be privately maintained, and identify which party(ies) are responsible for maintenance. Easement widths shall be adequate for maintenance, repair and replacement without impact to structures or other permanent facilities.
- 8) Provide landscape and architectural plans with surfacing, grading, and drainage information for review for consistency with the civil plans.
- 9) Include signage at each proposed storm drain inlet stating "No Dumping – Drains to Bay" or



Drainage Review

Routing No: 3 Review Date: 04/17/2015

ANNETTE OLSON (AOLSON) : Complete

equivalent. This signage shall be privately maintained.

10) Recorded maintenance agreement(s) for stormwater management and mitigation facilities is required. Include detailed management activities, maintenance requirements, schedule, signs of system failure, and responsible party both in the recorded maintenance agreement as well as the final plans. The maintenance agreement should also include the standard language provided in Fig. SWM-25B of the CDC.

11) Provide a letter from the geotechnical engineer reviewing and approving the final stormwater management design. If the final plan includes infiltrative stormwater management facilities the geotechnical letter should confirm that the site soils encountered are consistent with the design infiltration rate used in the design.

Second Routing

Application with preliminary drainage study dated January 8, 2015 and plans dated 3/17/15 by Robert L. DeWitt and Associates has been received. Please address the following prior to final map recordation:

Conditions of Approval/Compliance Comments:

- 1) Either provide an evaluation of the drainage facilities within the City of Scotts Valley maintained Lockwood Lane or provide a letter from the City accepting the development without evaluation.
- 2) Sheet P3 shows a new 12 inch culvert proposed at the rebuilt driveway entrance. Provide analysis demonstrating that this is an appropriately sized culvert based on the upstream watershed area and City of Scotts Valley standards.
- 3) Provide final grading, drainage, surfacing and mitigation information for the proposed improvements that will be built with the land division (common driveway, culvert, etc.). Per Part 3, Section C.1.c of the CDC and based on different scenarios presented on sheet P4, this project is considered a large redevelopment project. As such, the project is required to provide mitigations for pollutant and hydrologic impacts due to development. These mitigations shall include Low Impact Development (LID) measures that emphasize minimization of impacts as a first priority consistent with the general plan for minimizing impervious area impacts. The project analysis must demonstrate compliance with sections C.2 and C.3.a, b and c of the CDC.



Drainage Review

Routing No: 3 Review Date: 04/17/2015

ANNETTE OLSON (AOLSON) : Complete

- a. Section C.2 Provide a narrative describing which pollutant generating activities and sources are proposed on the project site and how their impacts will be mitigated. Show these on a site map/plan. The map/plan should include or reference recommendations from the California Stormwater Quality Association (CASQA) BMP Handbook for New Development and Redevelopment or equivalent.
 - b. Section C.3.a: Based on the preliminary drainage study the project site is adequate for retaining runoff from both the 2 and 10 year storms. The project should be conditioned to retain and infiltrate runoff from the 2 and 10 year storms so that runoff leaving the site will not exceed predevelopment rates. The preliminary study further suggests that the driveway areas will be utilized for stormwater mitigation. Please note that Section I of the CDC allows a maximum design saturated permeability of 200 mm/hr (8 inches/hr) to be used when sizing retention facilities. The preliminary study used rates higher than allowed. If retention will also be used to mitigate for the 10 year storm as it appears feasible, the release rate should be updated to match the expected infiltration rate when determining the storage volume to provide.
 - c. Section C.3.a: Based on the assessment described in Comment 1 above, if downstream inadequacies are identified the project may be required to include downstream improvements or to provide on-site mitigations beyond the County minimum standards.
 - d. Section C.3.b: Based on the preliminary drainage study this project will retain and infiltrate the 2 year storm in order to minimize stormwater pollutants of concern.
 - e. Section C.3.c: Please include a narrative introduction to the concept of stormwater management on the site in the Stormwater Management Report that addresses each of the Site Design and Runoff Reduction measures called for in this section.
- 4) Provide grading, drainage, surfacing, and mitigation information for the proposed individual lots for impact and mitigation. While the design for the mitigation facilities on the individual lots does not need to be completed prior to final map approval, the proposed mitigation strategy(ies) needs to be identified and demonstrated to be feasible.
- 5) Provide final stormwater management plans that are adequately detailed for construction and that demonstrate compliance with the CDC. Design should include provisions for safe overflow, flow control sizing, capacity analysis, treatment, pollution prevention, contaminate screening, drain time and vector control assessment. Plans should clearly describe how runoff from all project areas that are to be constructed as part of the land division (roof, hardscapes, landscapes, rear yards, etc.) will be routed and should include details such as: surface and invert elevations, slopes, surface details, flow control structures, clean-out facilities at pipe connections/grade/direction changes, materials, installation requirements, compaction/decompaction requirements, etc.



Drainage Review

Routing No: 3 Review Date: 04/17/2015

ANNETTE OLSON (AOLSON) : Complete

- 6) Please confirm with the water department that the water service lines locations relative to the stormwater management is acceptable and in conformance with state and local standards.
- 7) Storm drainage easements should be provided for all common drainage facilities. The final map should clearly depict these easement areas, specifically state that these easements are to be privately maintained, and identify which party(ies) are responsible for maintenance. Easement widths shall be adequate for maintenance, repair and replacement without impact to structures or other permanent facilities.
- 8) Provide landscape and architectural plans with surfacing, grading, and drainage information for review for consistency with the civil plans.
- 9) Include signage at each proposed storm drain inlet stating “No Dumping – Drains to Bay” or equivalent. This signage shall be privately maintained.
- 10) Recorded maintenance agreement(s) for stormwater management and mitigation facilities is required. Include detailed management activities, maintenance requirements, schedule, signs of system failure, and responsible party both in the recorded maintenance agreement as well as the final plans. The maintenance agreement should also include the standard language provided in Fig. SWM-25B of the CDC.
- 11) Provide a letter from the geotechnical engineer reviewing and approving the final stormwater management design. If the final plan includes infiltrative stormwater management facilities the geotechnical letter should confirm that the site soils encountered are consistent with the design infiltration rate used in the design.

Environmental Planning

Routing No: 3 Review Date: 06/01/2015

ANNETTE OLSON (AOLSON) : Complete



Fire Review

Routing No: 1 Review Date: 11/14/2014

ANNETTE OLSON (AOLSON) : Complete

Annette,

The Scotts Valley Fire Protection District has the following comments regarding the proposal to divide a parcel into three parcels and construct a new right-of-way at 504 Lockwood Lane:

COMPLETENESS ITEMS:

No further information is needed from the applicant, at this time, in order to determine whether the project is feasible and what the impacts may be if it is constructed.

COMPLIANCE ISSUES:

This proposed project shall comply with the California Fire Code as amended by the Scotts Valley Fire Protection District including Fire Apparatus Access Roads and Fire Protection Water Supplies.

PERMIT CONDITIONS/ADDITIONAL INFORMATION:

Building permit plans shall comply with the California Fire Code as amended by the Scotts Valley Fire Protection District.

Please contact me directly with any questions or concerns regarding these project comments.

Daniel J. Grebil, Fire Chief
Scotts Valley Fire Protection District
dgrebil@scottsvalleyfire.com
Office - 831.438.0211
Cell - 831.212.8309
Fax - 831.438.0383
www.scottsvalleyfire.com

Project Review

Routing No: 3 Review Date: 04/17/2015

ANNETTE OLSON (AOLSON) : Complete

See letter.

Road Engineering Review



Road Engineering Review

Routing No: 1 Review Date: 11/10/2014

RODOLFO RIVAS (RRIVAS) : Not Required

Lockwood Lane at the location of the project is within the City of Scotts Valley's Jurisdiction. Therefore, the City of Scotts Valley will determine the road and roadside improvements for this project.

Surveyor Review

Routing No: 1 Review Date: 11/06/2014

GREG MARTIN (GMARTIN) : No Response

No comments.

Annette Olson

From: Kimarie Jones [kjones@scottsvally.org]
Sent: Thursday, April 16, 2015 4:57 PM
To: Annette Olson
Subject: FW: Minor Land Division

FYI, no further comments we are good to go with this subdivision.

Thanks!

Kimarie Jones, Engineering Tech
City of Scotts Valley
Public Works Department
701 Lundy Lane, Scotts Valley CA 95066
P: 831 438-5854
F: 831 439-9748

-----Original Message-----

From: Joel Ricca [mailto:joel@bowmanandwilliams.com]
Sent: Thursday, April 16, 2015 4:19 PM
To: Kimarie Jones
Subject: RE: Minor Land Division

Yes
Our review comments did not require a response.

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: Kimarie Jones <kjones@scottsvally.org>
Date: 04/16/2015 1:31 PM (GMT-08:00)
To: Joel Ricca <joel@bowmanandwilliams.com>
Cc: Annette.Olson@santacruzcounty.us
Subject: FW: Minor Land Division

Can you confirm that the Minor Land Division on Lockwood is complete and Annette from the SC County can proceed.

Thanks!
Kimarie

Kimarie Jones, Engineering Tech
City of Scotts Valley
Public Works Department
701 Lundy Lane, Scotts Valley CA 95066
P: 831 438-5854
F: 831 439-9748

From: Annette Olson [mailto:Annette.Olson@santacruzcounty.us]
Sent: Thursday, April 16, 2015 12:11 PM
To: Kimarie Jones

Subject: Minor Land Division

Hi Kimarie.

I'm finishing up my review of Rick Hochler's land division on Lockwood (APN 067-041-14, Application 141228) and am wondering if you are satisfied with the information you were provided.

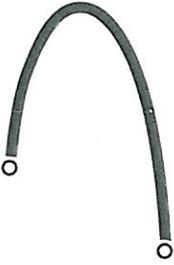
Please let me know as soon as possible as my letter is due tomorrow.

Thanks very much,
Annette

Annette Olson
Development Review Planner
County of Santa Cruz
(831) 454-3134
Work Schedule: 8:30 - 1:30: M, W, Th, F

**Robert L. DeWitt
and Associates, Inc.**

Civil Engineers & Land Surveyors



1607 Ocean Street - Suite 1
Santa Cruz, CA 95060

Telephone **831 425-1617**
Fax Number 831 425-0224
www.rldewitt.com

R14086

January 8, 2015

County of Santa Cruz
Planning Department
701 Ocean St.
Santa Cruz, CA 95060

Attn.: Annette Olson, Planner

Re: Proposed MLD Application No. 141228 Lockwood Lane
Rick Hochler, applicant

Dear Annette,

We have corresponded and met with Alyson Tom regarding the comments by DPW regarding this project. In accordance with our discussions, we have prepared a preliminary drainage study that demonstrates the feasibility of drainage design meeting the requirements of the Stormwater Management Division when the future build-out of the project is undertaken.

As suggested by Alyson, this study assumes the maximum lot coverage after deductions for setbacks and the preservation of the undisturbed areas. The actual design for each of the lots may well result in less coverage than the areas used in this study.

We enclose herewith our Preliminary Drainage Study including the schematic site plan with a table of the areas used in the drainage study, and the supporting calculations demonstrating the feasibility of the drainage design.

We have provided a copy to Alyson for her review. You may forward a copy to her for a proper routing of this submission.

Thank you for your attention to this matter.

Sincerely,

Robert L. DeWitt & Associates, Inc.

Robert L. DeWitt, P.E.

encl.

cc: Rick Hochler
Alyson Tom, DPW

R14086 to Planning 1-8-15

Robert L. DeWitt & Associates, Inc.

Civil Engineers and Land Surveyors

1607 Ocean Street, Suite 1

Santa Cruz, CA 95060

(831)425-1617 (831)425-0224 (fax)



CLIENT _____ JOB NO. _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

PRELIMINARY DRAINAGE STUDY

for the lands of

Rick Hochler

Located at:

504 Lockwood Lane

Scotts Valley, CA

A.P.N. 067-041-14

Application No. 141228

Prepared at the request of

Rick Hochler

325 Canham Rd.

Scotts Valley, CA 95006

Prepared by:

Robert L. DeWitt, P.E.



8-Jan-15

R14086

Narrative of Preliminary Drainage Review

In response to a requirement by the Stormwater management Division of the Department of Public Works, we have prepared a preliminary study of the project area to demonstrate future compliance with the drainage requirements that will be imposed when the project permits are issued for construction on the site. The current application is for approval of a tentative map for a lot-only subdivision, and does not include permitting for the future homes. However, the common driveway providing access to the lots off Lockewood Lane will be required to be designed and secured with a bond prior to recording the Parcel Map.

We have prepared a schematic site plan for this drainage study and have calculated the potential development areas available for future development on the lots. This study takes into account the following items:

1. Net area of each lot, greater than the 10,000 sq. ft. required by the R-1-10 zoning; and
2. Reduction in developable area due to the areas around the perimeter to be preserved undisturbed due to the location within the sand hills biotic area; and
3. A 16' x 20' driveway apron connecting the common drive with the future garage; and
4. An allowance for a future 2-car garage of approximately 440 sq. ft.; and
5. A 3' construction buffer adjacent to the development envelope that preserves the undisturbed areas; and
6. An allowance of 15 feet for a rear yard that does not intrude into the preserved areas behind each of the future homes; and
7. Yard setbacks appropriate to the R-1-10 zone district.

The schematic site plan includes a table of calculations of the various areas of the listed items, resulting in a maximum development area footprint for each of the future homes; and the corresponding maximum lot coverage available on each of the lots for this preliminary drainage study. As noted, for the future building permit applications, the actual development area calculation may be less than the maximums used in this study.

We have performed the Lot Retention calculations for each of the lots employing Fig. SWM 17 from the County Design Criteria. The results show that with pervious paving for the driveway aprons in front of each future garage, a shallow layer of drain rock, ranging from 2 to 3 inches, will accommodate the 2-year intensity storm. A deeper section will likely be required to restrict the runoff to the pre-development rate. The hydraulic conductivity of the soils at this site is 92 micrometers per second according to the NRCS soil survey.

The runoff from the uphill properties may be conveyed through the site along the common driveway. A private drainage easement will be shown on the Parcel Map to provide for this feature.

Our detailed calculations are attached for your information and review.

NOTES:

1. THIS SCHEMATIC SITE PLAN IS PREPARED FOR DRAINAGE MITIGATION STUDY AS REQUESTED BY THE STORM WATER MANAGEMENT DIVISION OF THE DEPARTMENT OF PUBLIC WORKS.
2. THE ACTUAL SITE PLAN FOR EACH OF THE LOTS WILL BE DEVELOPED FOR THE BUILDING PERMIT APPLICATION FOLLOWING RECORDING OF THE PARCEL MAP.
3. THE SITE AREAS FOR DEVELOPMENT ARE INTENDED TO BE THE MAXIMUM ALLOWABLE. THE ACTUAL AREAS FOR DEVELOPMENT MAY BE LESS THAN THE AREAS SHOWN IN THIS STUDY.

SCHEMATIC SITE AREA CALCULATIONS

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
NET LOT AREA	40% MAX. LOT COVERAGE	LESS FUTURE DRIVEWAY APRON	LESS ALLOWANCE FOR GARAGE	REMAINDER AVAIL LOT COVERAGE	REMAINDER LOT COVERAGE USED	TOTAL SCHEMATIC LOT COVERAGE USED	ACTUAL % OF LOT COVERAGE USED
(S.F.)	(S.F.)	(S.F.)	(S.F.)	(S.F.)	(S.F.)	(S.F.)	(%)
LOT 1: 11,835	4,734	-372	-440	3,922	2,816	3,628	31%
LOT 2: 12,315	4,926	-1,300	-440	3,156	2,816	4,586	37%
LOT 3: 10,951	4,344	-387	-440	3,517	2,474	3,301	30%

UNITS: (S.F.)

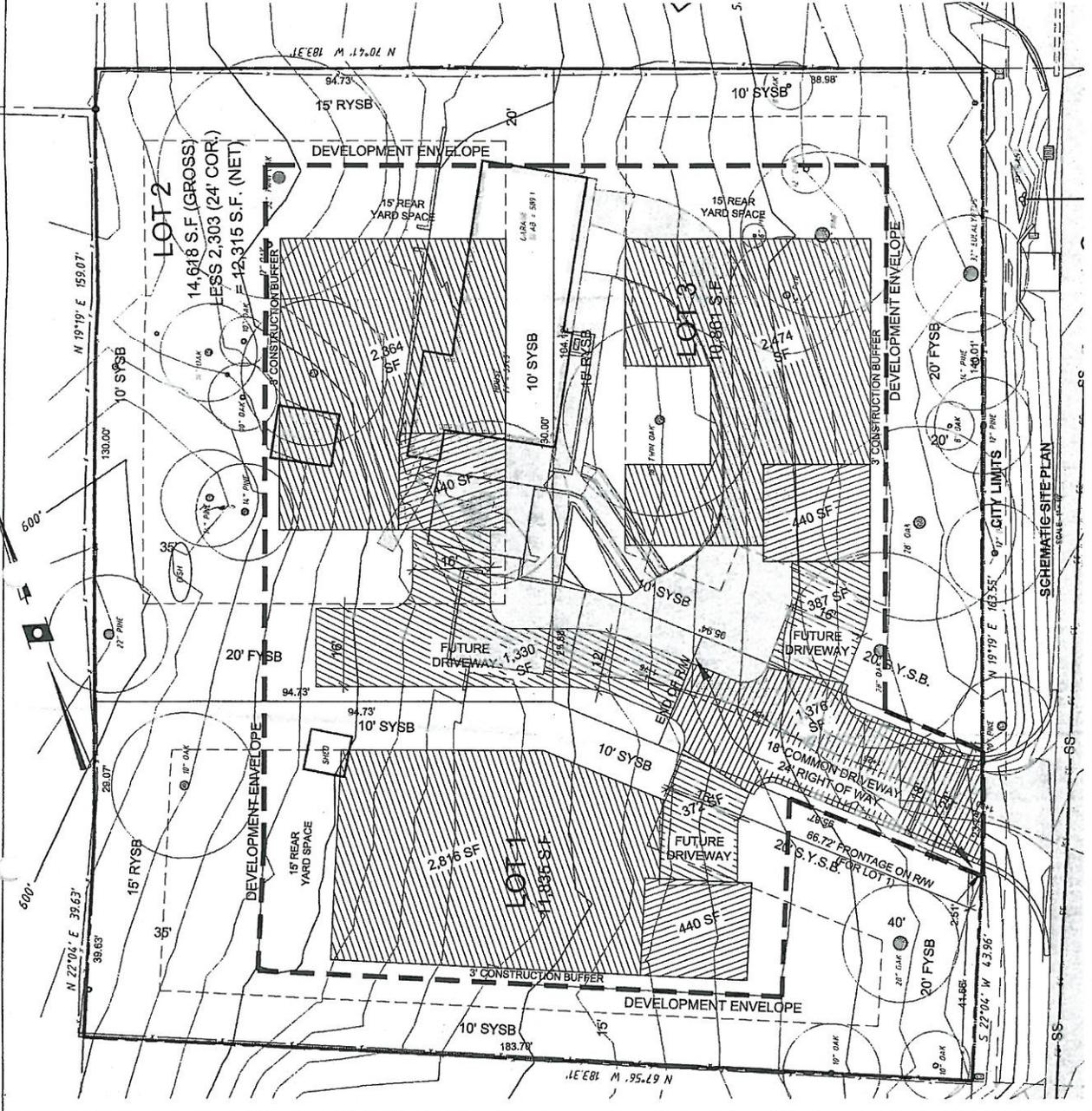
NOTES: [7] - [1] * 10%

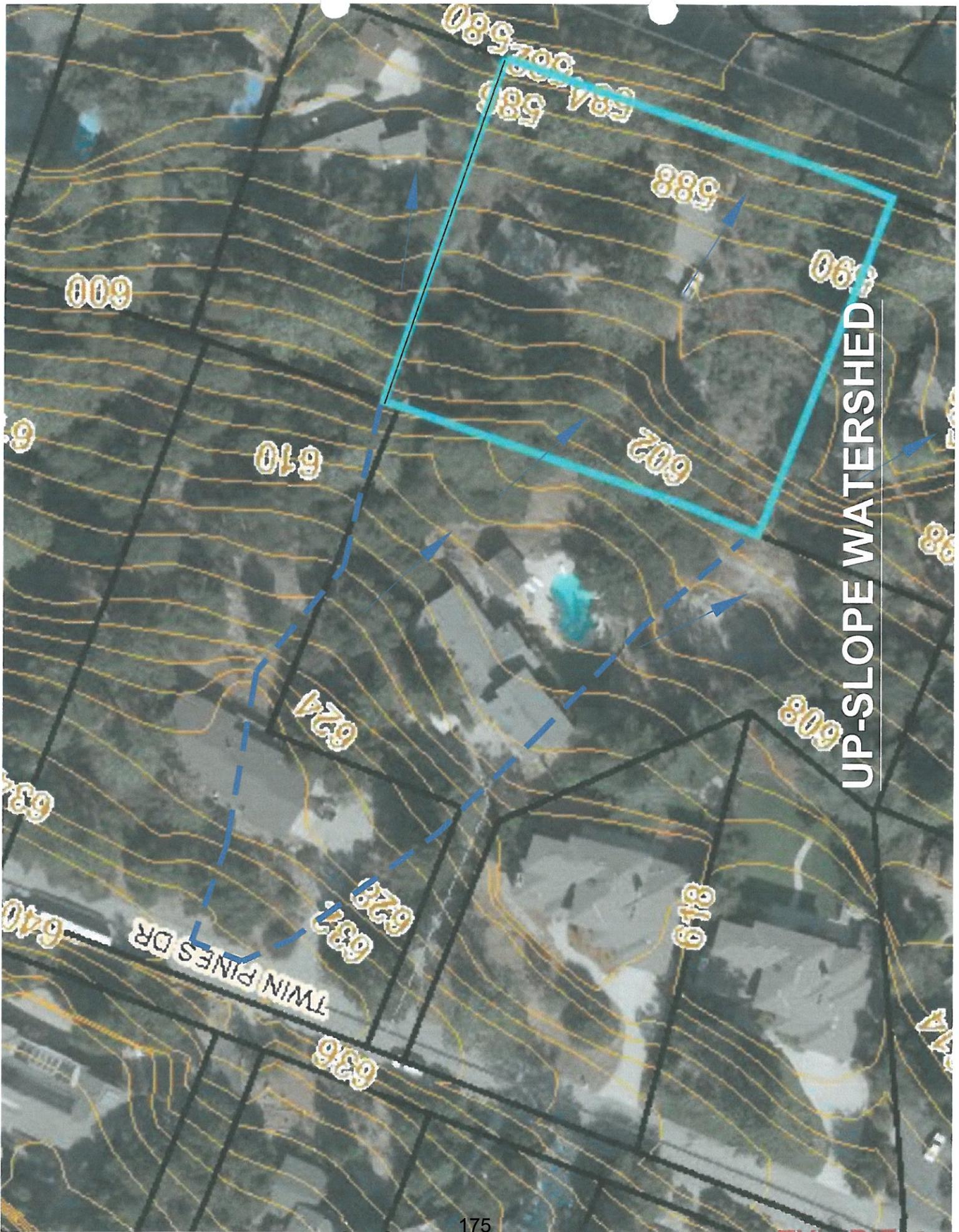
Robert L. DeWitt
 Civil Engineers & Land Surveyors
 1607 Reed Street, Suite 100
 San Jose, California 95126
 (415) 435-0178
 FAX (415) 435-0224

PROJECT: P100 / 1
 SHEET: 1

**SCHEMATIC SITE PLAN
 (FOR DRAINAGE STUDY ONLY)**

MINOR LAND DIVISION
 PREPARED AT THE REQUEST OF
 RICK HOCHLER
 A.P.N. 067-041-14
 SCOTTS VALLEY, CA.





800

889
889
889

889

807

810

802

UP-SLOPE WATERSHED

827

808

839

TWIN PINES DR

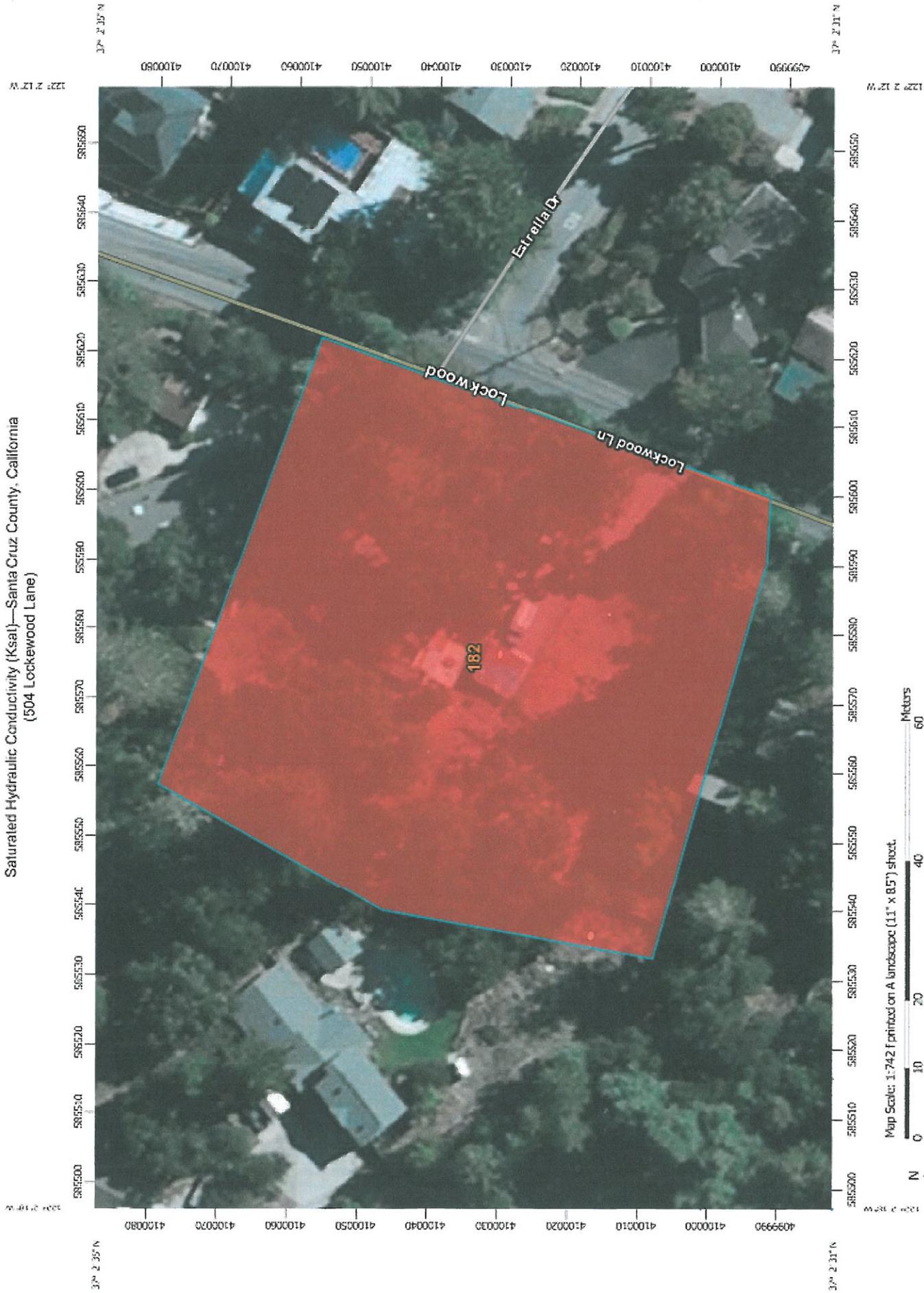
827

818

840

836

Saturated Hydraulic Conductivity (Ksat)—Santa Cruz County, California
(504 Lockewood Lane)



MAP LEGEND

- Area of Interest (AOI)
 -  Area of Interest (AOI)
- Soils
 -  = 92.0000
 -  Not rated or not available
- Soil Rating Lines
 -  = 92.0000
 -  Not rated or not available
- Soil Rating Points
 -  = 92.0000
 -  Not rated or not available
- Water Features
 -  Streams and Canals
- Transportation
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background
 -  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Santa Cruz County, California
 Survey Area Data: Version 8, Sep 16, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 12, 2010—Sep 17, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Saturated Hydraulic Conductivity (Ksat)

Saturated Hydraulic Conductivity (Ksat)— Summary by Map Unit — Santa Cruz County, California (CA087)				
Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
182	Zayante coarse sand, 5 to 30 percent slopes	92.0000	1.3	100.0%
Totals for Area of Interest			1.3	100.0%

Description

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

Rating Options

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Depth Range (Weighted Average)

Top Depth: 0

Bottom Depth: 144

Units of Measure: Inches

LOT 1 RETENTION

Post Development 'C' Value = 0.9

New Impervious Area = 3628

P60 Isopleths 1.8

2-yr factor 0.64 S.F.

Infiltration

Hydraulic Conductivity 92 Micrometers/Sec (NRCS)
 0.00362 In/Sec.
 Plan Area 372 S.F.
 Efficiency Factor 70%
 Infiltration rate 0.0786 C.F.S.

$$Q = C * i * A$$

Storm Duration (Minutes)	10-Yr. Intensity (In/Hr)	2-Yr. Intensity (In/Hr)	Flow In (C.F.S)	Flow Out (infiltration) (C.F.S)	Flow Net (C.F.S)	Storage Volume C.F.
1440	0.34	0.22	0.0164	0.079	-0.0622	-5369.875315
1200	0.36	0.23	0.0174	0.079	-0.0612	-4405.238496
960	0.39	0.25	0.0189	0.079	-0.0597	-3440.601677
720	0.44	0.28	0.0213	0.079	-0.0573	-2475.964858
480	0.52	0.33	0.0252	0.079	-0.0534	-1539.191078
360	0.58	0.37	0.0281	0.079	-0.0505	-1091.701469
240	0.68	0.44	0.0329	0.079	-0.0457	-658.1433792
180	0.76	0.49	0.0368	0.079	-0.0418	-451.8129744
120	0.90	0.58	0.0435	0.079	-0.0351	-252.4483296
90	1.00	0.64	0.0484	0.079	-0.0302	-163.2146472
60	1.18	0.76	0.0571	0.079	-0.0215	-77.4638448
45	1.32	0.84	0.0639	0.079	-0.0147	-39.8127636
30	1.55	0.99	0.0750	0.079	-0.0036	-6.5152824
20	1.82	1.16	0.0880	0.079	0.0094	11.3294384
15	2.03	1.30	0.0982	0.079	0.0196	17.6396388
10	2.39	1.53	0.1156	0.079	0.0370	22.2083992
5	3.14	2.01	0.1519	0.079	0.0733	21.9881996

Use 22.2083992

STORAGE

Pervious Driveway Plan Area 372 S.F. (from above)
 Percent Voids in storage Layer 40%
 Required Depth is Storage Layer 0.149 Ft
 1.791 In.

LOT 2 RETENTION

Post Development 'C' Value = 0.9

New Impervious Area = 4586

P60 Isoleths 1.8

2-yr factor 0.64 S.F.

Infiltration

Hydraulic Conductivity 92 Micrometers/Sec (NRCS)
 0.00362 In/Sec.
 Plan Area 400 S.F.
 Efficiency Factor 70%
 Infiltration rate 0.0845 C.F.S.

$$Q = C * i * A$$

Storm Duration (Minutes)	10-Yr. Intensity (In/Hr)	2-Yr. Intensity (In/Hr)	Flow In (C.F.S)	Flow Out (infiltration) (C.F.S)	Flow Net (C.F.S)	Storage Volume C.F.
1440	0.34	0.22	0.0208	0.085	-0.0637	-5505.78816
1200	0.36	0.23	0.0220	0.085	-0.0625	-4500.1056
960	0.39	0.25	0.0238	0.085	-0.0607	-3494.42304
720	0.44	0.28	0.0269	0.085	-0.0576	-2488.74048
480	0.52	0.33	0.0318	0.085	-0.0527	-1518.2784
360	0.58	0.37	0.0355	0.085	-0.0490	-1059.46272
240	0.68	0.44	0.0416	0.085	-0.0429	-618.25728
180	0.76	0.49	0.0465	0.085	-0.0380	-410.86224
120	0.90	0.58	0.0550	0.085	-0.0295	-212.27232
90	1.00	0.64	0.0611	0.085	-0.0234	-126.18504
60	1.18	0.76	0.0722	0.085	-0.0124	-44.50032
45	1.32	0.84	0.0807	0.085	-0.0038	-10.2618
30	1.55	0.99	0.0948	0.085	0.0103	18.47352
20	1.82	1.16	0.1113	0.085	0.0268	32.1272
15	2.03	1.30	0.1241	0.085	0.0396	35.65212
10	2.39	1.53	0.1461	0.085	0.0616	36.97576
5	3.14	2.01	0.1920	0.085	0.1075	32.24588

Use 36.97576

STORAGE

Pervious Driveway Plan Area 400 S.F. (from above)
 Percent Voids in storage Layer 40%
 Required Depth is Storage Layer 0.231 Ft
 2.773 In.

LOT 3 RETENTION

Post Development 'C' Value = 0.9

New Impervious Area = 3301

P60 Isoleths 1.8

2-yr factor 0.64 S.F.

Infiltration Hydraulic Conductivity 92 Micrometers/Sec (NRCS)
 0.00362 In/Sec.
 Plan Area 387 S.F.
 Efficiency Factor 70%
 Infiltration rate 0.0818 C.F.S.

$$Q = C * i * A$$

Storm Duration (Minutes)	10-Yr. Intensity (In/Hr)	2-Yr. Intensity (In/Hr)	Flow In (C.F.S)	Flow Out (infiltration) (C.F.S)	Flow Net (C.F.S)	Storage Volume C.F.
1440	0.34	0.22	0.0150	0.082	-0.0668	-5771.780899
1200	0.36	0.23	0.0158	0.082	-0.0659	-4746.438216
960	0.39	0.25	0.0172	0.082	-0.0646	-3721.095533
720	0.44	0.28	0.0194	0.082	-0.0624	-2695.75285
480	0.52	0.33	0.0229	0.082	-0.0589	-1695.761846
360	0.58	0.37	0.0255	0.082	-0.0562	-1214.780105
240	0.68	0.44	0.0299	0.082	-0.0518	-746.4742032
180	0.76	0.49	0.0335	0.082	-0.0483	-521.8281324
120	0.90	0.58	0.0396	0.082	-0.0422	-303.5199816
90	1.00	0.64	0.0440	0.082	-0.0378	-203.8727862
60	1.18	0.76	0.0519	0.082	-0.0298	-107.3945508
45	1.32	0.84	0.0581	0.082	-0.0237	-63.9088731
30	1.55	0.99	0.0682	0.082	-0.0135	-24.3843954
20	1.82	1.16	0.0801	0.082	-0.0017	-1.9959436
15	2.03	1.30	0.0893	0.082	0.0076	6.8215623
10	2.39	1.53	0.1052	0.082	0.0234	14.0545882
5	3.14	2.01	0.1382	0.082	0.0564	16.9302941

Use 16.9302941

STORAGE

Pervious Driveway Plan Area 387 S.F. (from above)

Percent Voids in storage Layer 40%

Required Depth is Storage Layer 0.109 Ft
 1.312 In.

RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD

Data Entry: **PRESS TAB & ENTER DESIGN VALUES** SS Ver: 1.0

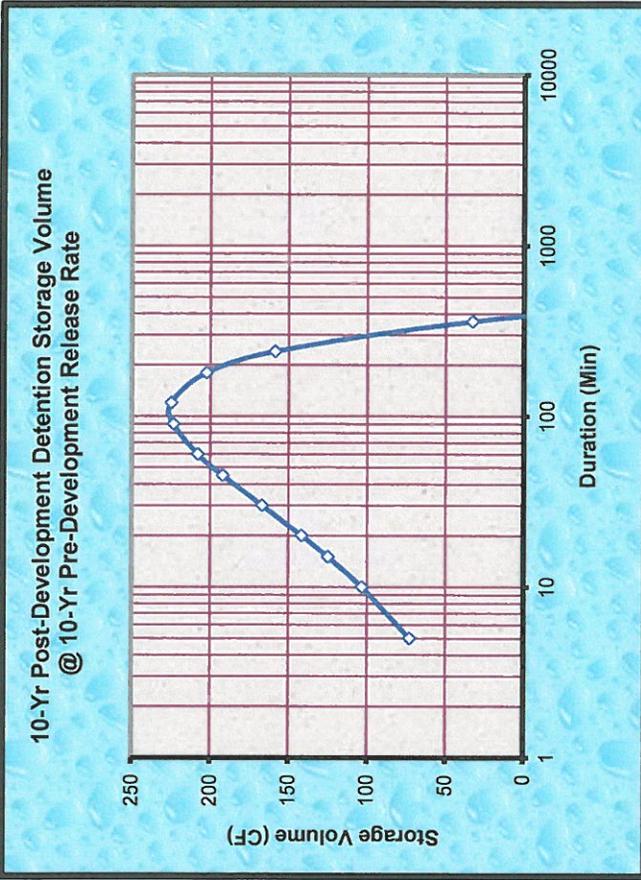
Site Location P60 Isopleth:	1.80	Fig. SWM-2 in County Design Criteria
Rational Coefficients Cpre:	0.25	See note # 2
Cpost:	0.90	See note # 2
Impervious Area:	3628	ft ² See note # 2 and # 4

STRUCTURE DIMENSIONS FOR DETENTION

225	ft ³ storage volume calculated		
100	% void space assumed		
225	ft ³ excavated volume needed		
Structure Ratios	Length	Width*	Depth*
	25.00	2.00	2.00
Dimen. (ft)	32.77	2.62	2.62

*For pipe, use the square root of the sectional area

10 - YEAR DESIGN STORM				DETENTION @ 15 MIN.	
Storm Duration (min)	10 - Year Intensity (in/hr)	10 - Yr. Release Qpre (cfs)	10 - Year Qpost (cfs)	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
1440	0.34	0.007	0.025	-0.017	-1866
1200	0.36	0.008	0.027	-0.015	-1384
960	0.39	0.008	0.030	-0.013	-927
720	0.44	0.009	0.033	-0.009	-502
480	0.52	0.011	0.039	-0.003	-126
360	0.58	0.012	0.044	0.001	33
240	0.68	0.014	0.052	0.009	159
180	0.76	0.016	0.058	0.015	203
120	0.90	0.019	0.068	0.025	225
90	1.00	0.021	0.076	0.033	224
60	1.18	0.025	0.089	0.046	208
45	1.32	0.028	0.100	0.057	192
30	1.55	0.032	0.117	0.074	167
20	1.82	0.038	0.137	0.095	142
15	2.03	0.043	0.154	0.111	125
10	2.39	0.050	0.180	0.138	103
5	3.14	0.066	0.237	0.194	73



Notes & Limitations on Use:

- 1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
- 2) Required detention volume determinations shall be based on all net new impervious areas both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
- 3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
- 4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
- 5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
- 6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.

RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD

Data Entry: **PRESS TAB & ENTER DESIGN VALUES** SS Ver: 1.0

Site Location P60 Isopleth:	1.80	Fig. SWM-2 in County Design Criteria
Rational Coefficients Cpre:	0.25	See note # 2
Cpost:	0.90	See note # 2
Impervious Area:	4586	ft ² See note # 2 and # 4

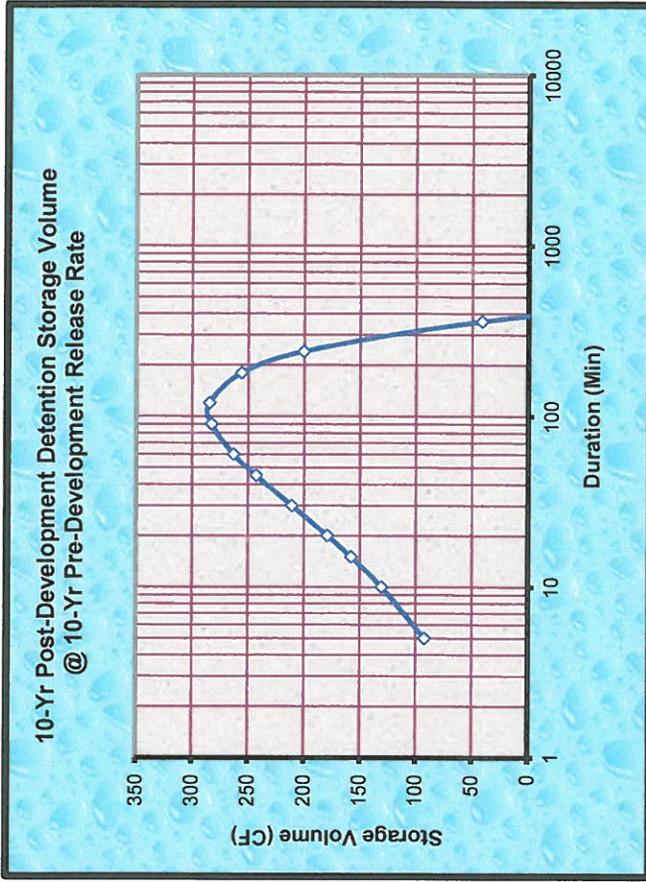
STRUCTURE DIMENSIONS FOR DETENTION

285	ft ³ storage volume calculated		
100	% void space assumed		
285	ft ³ excavated volume needed		
Structure Ratios	Length	Width*	Depth*
	25.00	2.00	2.00
Dimen. (ft)	35.43	2.83	2.83

*For pipe, use the square root of the sectional area

10 - YEAR DESIGN STORM

Storm Duration (min)	10 - Yr.			DETENTION @ 15 MIN.	
	10 - Year Intensity (in/hr)	10 - Year Release Qpre (cfs)	10 - Year Qpost (cfs)	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
1440	0.34	0.009	0.032	-0.022	-2359
1200	0.36	0.010	0.035	-0.019	-1750
960	0.39	0.010	0.038	-0.016	-1171
720	0.44	0.012	0.042	-0.012	-634
480	0.52	0.014	0.050	-0.004	-159
360	0.58	0.015	0.056	0.002	41
240	0.68	0.018	0.065	0.011	201
180	0.76	0.020	0.073	0.019	256
120	0.90	0.024	0.086	0.032	285
90	1.00	0.027	0.096	0.042	283
60	1.18	0.031	0.112	0.059	263
45	1.32	0.035	0.126	0.072	243
30	1.55	0.041	0.148	0.094	211
20	1.82	0.048	0.173	0.119	179
15	2.03	0.054	0.194	0.140	158
10	2.39	0.063	0.228	0.174	131
5	3.14	0.083	0.300	0.246	92



Notes & Limitations on Use:

- 1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
- 2) Required detention volume determinations shall be based on all net new impervious area both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
- 3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
- 4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
- 5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
- 6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.

RUNOFF DETENTION BY THE MODIFIED RATIONAL METHOD

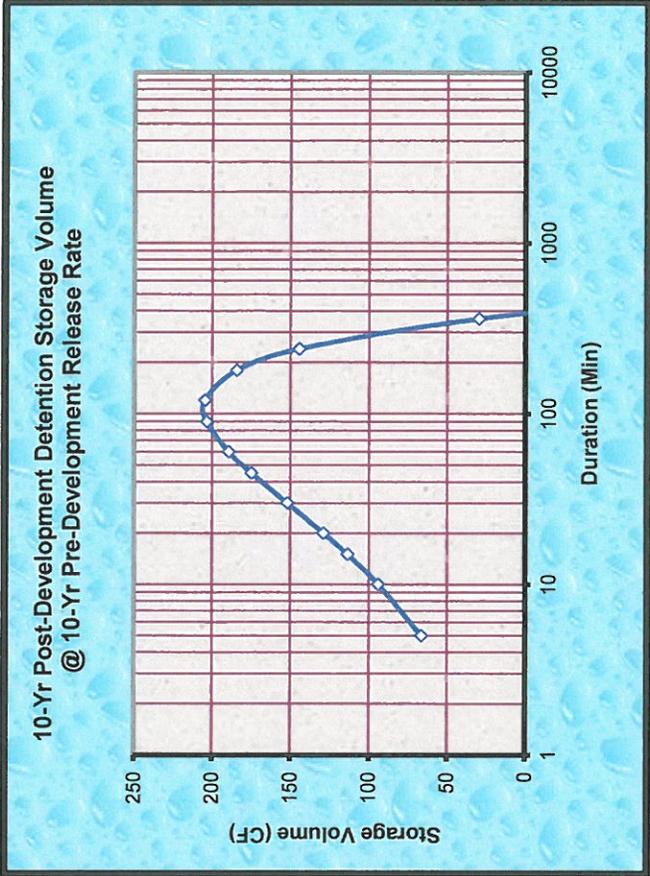
Data Entry:	PRESS TAB & ENTER DESIGN VALUES	SS Ver: 1.0
Site Location P60 Isoleth:	1.80	Fig. SWM-2 in County Design Criteria
Rational Coefficients Cpre:	0.25	See note # 2
Cpost:	0.90	See note # 2
Impervious Area:	3301 ft ²	See note # 2 and # 4

STRUCTURE DIMENSIONS FOR DETENTION

205	ft ³ storage volume calculated		
100	% void space assumed		
205	ft ³ excavated volume needed		
Structure Ratios	Length	Width*	Depth*
	25.00	2.00	2.00
Dimen.. (ft)	31.75	2.54	2.54

*For pipe, use the square root of the sectional area

10 - YEAR DESIGN STORM				DETENTION @ 15 MIN.	
Storm Duration (min)	10 - Year Intensity (in/hr)	10 - Yr. Release Qpre (cfs)	10 - Year Qpost (cfs)	Detention Rate To Storage (cfs)	Specified Storage Volume (cf)
1440	0.34	0.006	0.023	-0.016	-1698
1200	0.36	0.007	0.025	-0.014	-1260
960	0.39	0.008	0.027	-0.012	-843
720	0.44	0.008	0.030	-0.008	-456
480	0.52	0.010	0.036	-0.003	-115
360	0.58	0.011	0.040	0.001	30
240	0.68	0.013	0.047	0.008	145
180	0.76	0.015	0.053	0.014	184
120	0.90	0.017	0.062	0.023	205
90	1.00	0.019	0.069	0.030	204
60	1.18	0.022	0.081	0.042	190
45	1.32	0.025	0.091	0.052	175
30	1.55	0.030	0.106	0.068	152
20	1.82	0.035	0.125	0.086	129
15	2.03	0.039	0.140	0.101	114
10	2.39	0.046	0.164	0.125	94
5	3.14	0.060	0.216	0.177	66



Notes & Limitations on Use:

- 1) The modified rational method, and therefore the standard calculations are applicable in watersheds up to 20 acres in size.
- 2) Required detention volume determinations shall be based on all net new impervious area both on and off-site, resulting from the proposed project. Pervious areas shall not be included in detention volume sizing; an exception may be made for incidental pervious areas less than 10% of the total area.
- 3) Gravel packed detention chambers shall specify on the plans, aggregate that is washed, angular, and uniformly graded (of single size), assuring void space not less than 35%.
- 4) A map showing boundaries of both regulated impervious areas and actual drainage areas routed to the hydraulic control structure of the detention facility is to be provided, clearly distinguishing between the two areas, and noting the square footage.
- 5) The EPA defines a class V injection well as any bored, drilled, or driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system. Such storm water drainage wells are "authorized by rule". For more information on these rules, contact the EPA. A web site link is provided from the County DPW Stormwater Management web page.
- 6) Refer to the County of Santa Cruz Design Criteria, for complete method criteria.

MBUAPCD CONSISTENCY DETERMINATION PROCEDURE Ver. 4.0

Data entry Data entered by user.

Consistency Finding NO YES

6	Jurisdiction:	County of Santa Cruz Unincorp		Lead Agency selects from pull down
7	Project Name:	Rodriguez Jose Residential Development		Lead Agency enters
8	Base Year for this determination:	2010	Project Buildout/ Occupancy Year	2017
9			Proposed Project Occupied DU	20

Total buildout of Project. Sum of all years, row 26.

JURISDICTION DATA FROM AQMP & DOF (no data entry)

	Base Year	Period ending January 1st of:					Notes	
		2015	2020	2025	2030	2035		
14	DOF Population	137,873	From Calif. Dept of Finance. Est. for Jan 1 -- released in June of each year.					
15	AMBAG DU Forecast for Jurisdiction	57,498	58,075	59,321	59,808	60,257	60,802	DUs from AMBAG Travel Model, current version.
16	AMBAG Pop Forecast for Jurisdiction	135,173	134,797	137,681	138,822	139,690	141,162	Latest AMBAG Pop. & Employment forecasts.
17	AMBAG Forecast Population/ DU	2.35	2.32	2.32	2.32	2.32	2.32	Row 16/ row 15
18	Estimated Built DUs	57,244	Entry for 2010 is the DOF 1/2010 Housing Unit Estimate. Lead agency may overwrite if they have better data.					

JURISDICTION DUs w/o PROJECT

	2010	2015	2020	2025	2030	2035		
21	Housing Stock (Built DUs, Total)	56,863	56,927	57,247	57,567	57,887	58,207	Lead Agency estimates value at period end.
22	Approved but not Built DUs	64	320	320	320	320	320	Lead Agency estimates value at period end.
23	Total Built & Approved DUs	56,927	57,247	57,567	57,887	58,207	58,527	Sum of Row 21 + 22

PROPOSED NEW PROJECT DUs

	2015	2020	2025	2030	2035		
26	Proposed New Project DUs	20					Data entry by Lead Agency.
27	TOTAL, New Project + Built & Approved DUs	57,267	57,567	57,887	58,207	58,527	Sum of Row 23 + 26

NEW PROJECT CONSISTENCY DETERMINATION

29	Over (Under) AQMP DUs	(808)	(1,754)	(1,921)	(2,050)	(2,275)	Row 27 - Row 15
30	Is the project consistent in this Period?	YES	YES	YES	YES	YES	If Row 30 is (negative) = YES, if positive = NO.

OPTIONS IF INCONSISTENT (Choose one):

Year:	2015	2020	2025	2030	2035	
38	A. Mitigate the impact by reducing project DUs by this amount:					Preferred option. Reduce project DUs by this amount for the inconsistent period, or redistribute project DUs between periods until all are consistent.
	B. Obtain commitment from AMBAG to add this number of dwelling units to it's next forecast for this Jurisdiction.					Commitmet from AMBAG would enable consistency with the next AQMP.
40	C. OR For EIRs, declare overriding benefit, AND request AMBAG to add the above number of persons and dwelling units to it's next forecast for this Jurisdiction.					



City of Scotts Valley

Public Works Department
One Civic Center Drive Scotts Valley, California 95066
Phone 831 438-5854 Facsimile 831 439-9748

August 21st, 2014

Rick Hochler
325 Canham Rd
Scotts Valley, CA 95066

Re: APN 067-041-14

This is a "Will Serve Letter" for the above stated property APN 067-041-14, address 504 Lockwood Lane in the County of Santa Cruz. With regard to the sewer hook-up(s) for this property being in the County of Santa Cruz, your property is authorized for connection to Scotts Valley City sewer.

Property owner must submit all improvement plans and any other applications and fees that the City of Scotts Valley requires prior to having the intended property(s) connected to sewer.

Sincerely,

Kimarie Jones
Engineering Tech



SAN LORENZO VALLEY WATER DISTRICT

13060 Highway 9 • Boulder Creek, CA 95006-9119

Office (831) 338-2153 • Fax (831) 338-7986

Website: www.slvwd.com

October 13, 2014

Mr. Hochler
325 Canham Rd
Scotts Valley, CA 95066

Subject: Request for Meter Review
APN: 67-041-14

Dear Mr. Hochler:

The District has on file your request for meter service on the above parcel.

Your request has been:

- Approved. Please come to the District to pay your connection charges.
- Approved. Please bring your plumbing plans and sprinkler system flow requirement to the District to determine the cost of the water connection.
- Conditions. Please contact the District office to discuss and make necessary arrangements.
- Denied. Please contact the District office to discuss this meter request if you have any questions.

- **Approval can be withdrawn at any time.**
- **Water service is never guaranteed until service has been approved, sized and all fees paid.**
- **Any addition of plumbing fixtures and/or residential fire sprinkler system to the existing water service requires an additional review by District staff and approval for compliance with meter sizing District Ordinances.**

If you have any questions regarding this matter, please contact our office.

Sincerely,

Stephanie Hill
Finance Manager

9/28/14

Design Guidelines
For a 3-lot Minor Land Division at 504 Lockewood Lane
County of Santa Cruz
APN 067-041-14

The design and ultimate build-out of the Minor Land Division at 504 Lockewood Lane will result in a high quality, esthetically pleasing and environmentally sensitive project. The Design Guidelines provide a framework for neighborhood planning, architecture, and landscaping. These Guidelines are intended to guide the design within a Development Envelopment for each of the three parcels and yet still maintain flexibility.

The basic objectives of the Design Guidelines are to:

- Assure high quality community character and land use compatibility within the allowable developable area.

- Create a design which is sensitive to the privacy of neighbors, compatible with the neighborhood and the existing environment.

- Support energy and water conservation and fire safety.

Landscaping: Landscape for the individual lots shall incorporate drought tolerant and native plants. All vegetation shall be trimmed to meet fire access requirements.

Fencing: Fencing along property lines shall comply with the County height standards. All fences shall be constructed of solid wood and be designed as “good neighbor fences.” If they are stained or painted they should be of natural color.

Home Design: It will be encouraged that each home be designed and oriented to optimize solar access. Window orientation and design should be sensitive to the privacy of the existing homes in the neighborhood. Residential architectural styles may vary. There is no intent to establish a universal design standard or type of architecture.

Home size shall conform to County rules and regulations. Front porches and wrap-around porches are encouraged. All sides of the home elevations shall have the same level of detail. Siding material may be wood, stucco or a combination of both. Homes shall include a combination of one and two-story elements to create visual diversity. Architectural elements such as chimneys, balconies, and porches are encouraged. Roof elements shall include dormers, gables and eaves to break up mass.

Use of natural materials such as wood, wood trim, stone, rock or brick are encouraged for design accent and trim. Material color values should generally be light earth tones with darker tones and

white used for trim and accent. Accent color should be used for shutters, trim, fascia, balcony rails, stucco recesses or cornice bands.

Driveways and parking areas may be brick, stone, concrete or similar natural materials and the use of pervious or semi-pervious material is encouraged. Asphalt should only be used for the main street of Lockewood Lane to match up to the driveway approach.

Roof pitch may vary but generally not be flatter than 4 inches vertical to 12 inches horizontal. Varied plates and ridge heights are encouraged to create offsets in the ridgeline to better articulate roof forms and building massing. Roof colors are encouraged to be neutral earth tones or shades of black or gray where appropriate with the home architecture. Concrete, clay, cement tile and composition shingle should be used for roof material.

Building elevations should be harmonious and compatible with the design elements of the architectural style of each home. Each home should have a predominant façade material and color that differentiates it from the adjacent home.

Exposed gutters and downspouts should be painted to match roof fascia trim or wall colors. Patina finishes such as copper are acceptable. All flashing, sheet metal, vents and pipes should be painted to match the adjacent surface. Sky lights are encouraged as part of the roof design.

Fire Prevention Requirements: All open space will be maintained in accordance with CalFire Prevention Standards. Driveways will be a minimum of 12 feet in width. All other requirements as specified by CalFire shall be incorporated into the plans and permit.

Water: Domestic water will be provided by San Lorenzo Valley Water as evidenced in the “will serve” letter.

Sewage Disposal: Sewer hook ups are in the street and available through the Scotts Valley Sewer district as evidenced in the “will serve” letter.

The intention of these Design Guidelines is to insure that the Lockewood Lane MLD is constructed in a manner compatible with the neighborhood, its natural surroundings, is environmentally sound, and will ensure that the owners maintain the natural beauty of the property while providing necessary elements for health and safety.

NEIGHBORHOOD MEETING TO DISCUSS A MINOR LAND DIVISION

Where: 504 Lockewood Lane

When: Sunday, October 12th

Time: 11:00

Proposal to divide a one acre parcel into 3 parcels

If you are unable to attend and you have any questions,
concerns, or comments, please contact:

Rick Hochler

325 Canham Rd.

Scotts Valley, CA 95066

831-439-8990

Neighborhood Meeting to Discuss a Minor Land Division

504 Lockwood Lane, Scotts Valley, CA 95066

Sunday, October 12, 11:00

List of concerns brought up by neighbors:

1. Quality of the houses to be built. High quality construction is desired. Desire to see examples of other houses built by contractor. Not dense, cheap housing.
2. Water usage in drought conditions.
3. Dust and noise. Can grading for all three be done at once so biggest disturbance happens one time only?
4. Length of time for construction in terms of neighborhood disturbance. All three built at once or one by one?
5. Feasibility of building one house rather than three.
6. Loss of view from other properties.
7. Manzanita silver leaf/ protected species of trees? How many trees will be cut?
8. Drainage and fencing. How will development affect water on Lockwood Lane. What will the fencing look like on Lockwood Lane?
9. Traffic on Estrella. Adding more cars and traffic. Concern about speed of drivers on Lockwood Lane. Difficulty of residents in entering and leaving their drive ways. Can speed bumps be put in to slow drivers down?
10. Parking for these new houses. If they have a party there is no parking on Lockwood Lane, so everyone parks on Estrella, which is already impacted.
11. Will soil have to be compacted? On Dunn Lane the compaction was very noisy.
12. More animals? More barking dogs.
13. Fence in the back of the property is falling down and needs to be repaired.

Neighbors in attendance:

Joe and Sarah Siderine, 523 Lockwood Lane, 408-910-5344

Mark and Fran Ordway, 500 Lockwood Lane, 831-295-2542

Doug and Claudia Bender, 587 Twin Pines Drive

Fred Richey, 125 Estrella Drive

Billy and Diana Robers, 498 Lockwood Lane, 831-278-0078

Greg and Peggy Cotton, 469 Twin Pines Drive, 831-234-7554, gpcotton@comcast.net (send them a list of houses you have built)

Lauri and Jim McNeill, 455 Twin Pines Drive, 602-703-6025, concerned about condition of fence between the properties

Marion Pokriots, 520 Lockwood Lane, 438-1438

Michael Lazarus, 150 Estrella Drive

Darylin Druhe, 535 Lockewood Lane 438-2821

Paul Hougl, 525 Lockewood Lane, 831-438-2688

Kirit Patel, 831-439-9611

*Join Next Door, Whispering Pines facebook page

02107203 OO
DRUHE DARYLIN M U/W SS
535 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

02107117 OO
ANDERSON DANIEL P & MARGARET S H/W J
123 ESTRELLA DR
SCOTTS VALLEY, CA 95066

06704134 OO
FOSSGREEN DONALD & VERONIQUE H/W JT
494 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

02107202 OO
HOUGH PAUL R
525 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

02107205 OO
RATCLIFFE CHRISTOPHER & ANASTASIA E
520 PINECONE DR
SCOTTS VALLEY, CA 95066

02123113 OO
PERRY CHARLES N JR & SHERRALYN
126 DUNN LN
SCOTTS VALLEY, CA 95066

02130121 OO
ELLIS LARRY B & SANDRA J CO-TRUSTEES
551 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

06704128 OO
DRAPER SUSAN LINN TRUSTEE
455 TWIN PINES DR
SCOTTS VALLEY, CA 95066

02107206 AO
ROGERS HILDE A TRUSTEE
530 PINE CONE DR
SCOTTS VALLEY, CA 95066

02107207 OO
STAHL INGEBORG E TRUSTEE
540 PINECONE DR
SCOTTS VALLEY, CA 95066

06704120 OO
NOMI TREVOR & JENNIFER CO-TRUSTEES
100 TAN OAK DR
SCOTTS VALLEY, CA 95066

06704112 AO
ROGERS WILLIAM E & DIANA A
498 LOCKWOOD LN
SCOTTS VALLEY, CA 95078

02130114 OO
COWAN LEONARD ALLISON & ANN J TRUSTE
545 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

02107103 OO
NGUYEN LAN W/H CP RS ETAL
499 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

06704133 AO
KEYS MARK WILLIAM & ROBIN LE ANN H/W
P O BOX 702
BROOKDALE, CA 95007

02107204 OO
LAZARUS MICHAEL P S/M
150 ESTRELLA DR
SCOTTS VALLEY, CA 95066

06704124 OO
BENDER DOUGLAS F & CLAUDIA J TRUST
587 TWIN PINES DR
SCOTTS VALLEY, CA 95066

06704131 AO
MACK DICK A TRUSTEE ETAL
600 LOCKWOOD LN
SCOTTS VALLEY, CA 95066

06704113 OO
ORDWAY MARK & FRAN N H/W
500 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

06704125 OO
GRAHAM KAYE A TRUSTEE
397 TWIN PINES DR
SCOTTS VALLEY, CA 95066

06704114 AO
HOCHLER RICHARD S TRUSTEES ETAL
325 CANHAM ROAD
SCOTTS VALLEY, CA 95066

06704115 OO
POKRIOTS WILFORD L & MARION D
520 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

06704127 OO
BELL CORA B TRUSTEE
321 TWIN PINES DR
SCOTTS VALLEY, CA 95066

02107201 AO
SIDERINE JOSEPH I & SARAH A TRUSTEES
P O BOX 66111
SCOTTS VALLEY, CA 95067

06704130 OO
ROWLAND JOHN E & JACQUELINE R TRUSTE
598 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066

02123111 OO
SMITH STEVEN E & KATHERINE E TRUSTEE
122 DUNN LN
SCOTTS VALLEY, CA 95066

06704136 AO
NIJOR ROBIN & AMRIK
549 TWIN PALMS DR
SCOTTS VALLEY, CA 95066

02107118 OO
RICHEY FREDERIC LYNN & KATHLEEN LYNN
ESTRELLA DR
SCOTTS VALLEY, CA 95066

02123110 OO
VAN METER MARK G & FRANCINE M H/W CP
120 DUNN LN
SCOTTS VALLEY, CA 95066

06704135 AO
PATEL KIRIT & RASHMI
1101 OCEAN ST
SANTA CRUZ, CA 95060

06704129 AO
COTTON GREGORY & PEGGY R
469 TWIN PINES
SCOTTS VALLEY, CA 95066

02123102 AO
VALLEY GARDENS GOLF COURT
263 MT HERMON RD
SCOTTS VALLEY, CA 95066

02123112 AO
LOCKEWOOD LANE CORPORATION
700 EL SALTO DR
CAPITOLA, CA 95010

02123116 AO
LONE PINE LANE OWNERS ASSOCIATION
700 EL SALTO DR

CAPITOLA, CA 95010

06704114 1R
Resident
504 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066-3945

J2107201 1R
Resident
523 LOCKEWOOD LN
SCOTTS VALLEY, CA 95066-3919

06704136 1R
Resident
549 TWIN PINES DR
SCOTTS VALLEY, CA 95066-3941

06704135 1R
Resident
505 TWIN PINES DR
SCOTTS VALLEY, CA 95066-3941

06704129 1R
Resident
469 TWIN PINES DR
SCOTTS VALLEY, CA 95066-3940

Annette Olson

From: prcotton@comcast.net
Sent: Friday, November 06, 2015 2:19 PM
To: Annette Olson
Cc: prcotton@comcast.net
Subject: 504 Lockwood Lane Scotts Valley

To Annette Olson,

We just received our notice of public hearing for the discussion of 504 Lockwood Lane on November 18th. Unfortunately we have an appointment at Standford Hospital and will not be able to attend. We did attend the meeting on Oct 28th which was cancelled and a complete waste of our time.

We are in complete opposition of building three more homes in this very busy area of Lockwood Lane. We are still in a serious drought with all of the neighborhood having dead lawns and landscaping. Everyone has been watching their use of showering and water usage, yet we are going to have 3 more families flushing toilets, taking showers etc? During the development huge water trucks will be necessary to the construction process. We just don't have the water!

Another issue is that at the neighborhood meeting earlier this year, we were told that they would be building one house at a time. This means that the process of noise, dust, and traffic will be going on for years!

Greg and Peggy Cotton
469 Twin Pines Dr
Scotts Valley CA 95066