

**COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT**

DATE: October 14, 2020

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of an appeal of the Coastside Design Review Committee's decision to approve a Design Review Permit and Grading Permit pursuant to Section 6565.3 of the County Zoning Regulations and Section 9283 of the County Ordinance Code, for the construction of a new 2,771 sq. ft. two-story single-family residence, with an attached 507 sq. ft. two car garage, 330 cubic yards of grading and no tree removal, on a vacant 5,230 sq. ft. parcel, located between 631 and 647 El Granada Boulevard , in the unincorporated El Granada area of San Mateo County.

County File Number: PLN 2019-00162 (Love/Zheng)

PROPOSAL

Appeal. The appellant, Jeremiah Armstrong, neighbor, has filed an appeal of the approval of the proposed development, which alleges, among other things, that: General Plan chapters regarding natural and environmental concerns have not been addressed; pending litigation between the appellant and applicant calls the applicant's right to access the property into question; roof eaves inappropriately encroach into setbacks; a qualified geotechnical engineer has not been retained for the project; and a lack of transparency in the review process.

Project History. The landowner, Wei Zheng, proposes to construct a 2,771 sq. ft. two-story single-family residence, including an attached 507 sq. ft. two-car garage on a legal, non-conforming undeveloped parcel. Earthwork includes 330 cubic yards of cut. No trees are proposed for removal. The design of the residence was recommended for approval by the Coastside Design Review Committee (CDRC) on April 9, 2020 after being revised to respond to initial comments from the CDRC. Upon recommendation of approval, the Community Development Director approved the Design Review and Grading Permits required for the project.

RECOMMENDATION

Deny the appeal and uphold the decision of the Community Development Director to approve the Design Review Permit and Grading Permit, based on the findings and subject to the conditions of approval contained in Attachment A.

SUMMARY

Staff has reviewed the appellants appeal points, summarized below, and has found the project to conform to the applicable General Plan and Zoning Regulations requirements, as conditioned and discussed further in the staff report.

The project was heard before the Coastside Design Review Committee (CDRC) at its November 14, 2019, February 13, 2020, and April 9, 2020 public meetings. As requested by the CDRC, the project was redesigned twice to reduce massing by lowering the grade of the residence, thus triggering the need for a Grading Permit. The project was recommended for approval by the CDRC on April 9, 2020.

Staff has reviewed the project for General Plan policy conformance regarding geotechnical and fire hazards as well as grading and drainage. The Geotechnical Section, Drainage Section, and the Coastside Fire Protection District have reviewed and granted conditional approval. The geotechnical engineer of record, having prepared the geotechnical report, is a licensed civil engineer as required by California Business and Professions Code. Potential sediment impacts were also reviewed by the Drainage Section which granted conditional approval based on the required installation of appropriate erosion and drainage controls. Coastside County Water District and Granada Community Services District have also granted conditional approval. The project has been redesigned to remove the roof eave encroachment (roof eaves are allowed to encroach within setbacks by up to two feet). Finally, the project conforms to the Grading Ordinance and will not have a significant adverse effect on the environment, as conditioned. The dispute between the appellant and applicant regarding the applicant's access to the site is a civil matter that does not have any bearing on the Planning Commission's consideration of the appeal, which is based on whether the project conforms to relevant County standards.

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County File Number: PLN 2019-00162 (Love/Zheng)

PROPOSAL

Appeal. The appellant, Jeremiah Armstrong, neighbor, has filed an appeal of the approval of the proposed development, that includes the following allegations:

1. The proposal does not consider natural hazards data, constraints, or appropriate mitigation measures as identified in General Plan Chapter 15.
2. The proposal does not comply with General Plan fire policies, General Plan Chapter 15.
3. There is pending litigation between the appellant and the applicant regarding the determination of a prescriptive easement along the left property line.
4. The roof eaves encroach into the left-side yard setback and encroaches into the alleged prescriptive easement.
5. A qualified Geotechnical Engineer has not been retained for the project.
6. The proposal compromises the integrity of the hillside causing sedimentary pollution in nearby waterways.
7. The proposal should comply with General Plan policies regarding environmental concerns, General Plan Chapter 1 and Chapter 2.

8. The proposal exacerbates fire danger in a highly vulnerable zone.
9. Planning and Building Department's analysis lacks transparency and appears designed to avoid appellate review of staff decisions.

Project History. The landowner, Wei Zheng, proposes to construct a 2,771 sq. ft. two-story single-family residence, including an attached 507 sq. ft. two-car garage on a legal conforming undeveloped parcel. Earthwork includes 330 cubic yards of cut and no tree removal. The residence was recommended for approval by the Coastside Design Review Committee (CDRC) on April 9, 2020 after being redesigned to respond to initial comments from the CDRC. Upon recommendation of approval, the Community Development Director approved the permits required for the project.

RECOMMENDATION

Deny the appeal and uphold the decision of the Community Development Director to approve the Design Review Permit and Grading Permit, based on the findings and subject to the conditions of approval contained in Attachment A.

BACKGROUND

Report Prepared By: Olivia Boo, Project Planner, oboo@smcgov.org

Appellant: Jeremiah Armstrong

Applicant: Ed Love, Architect

Owner: Wei Zheng

Location: Undeveloped parcel located between 631 and 647 El Granada Boulevard

APN: 047-151-120

Size: 5,230 sq. ft.

Existing Zoning: R-1/S-17/CD/DR (Single-Family Residential/S-17 Combining District/Coastal Development/Design Review)

General Plan Designation: Medium Density Residential (6.1-8.7 du/net acre)

Sphere-of-Influence: Half Moon Bay

Existing Land Use: Vacant with existing low growing vegetation. There are no existing trees.

Water Supply: Coastside County Water District.

Sewage Disposal: Granada Community Services District.

Flood Zone: The project site is located in Flood Zone X (Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level), per FEMA Panel No. 06081C0140E, effective October 16, 2012.

Parcel legality: Legal parcel. Certificate of Compliance (PLN 2016-00031) recorded.

Environmental Evaluation: Categorically exempt pursuant to Section 15303, Class 3(a), of the California Environmental Quality Act (CEQA) Guidelines, related to new construction of small structures, including single-family residences in a residential zone.

Setting: The project site is a vacant parcel located on El Granada Boulevard between 631 and 647 El Granada Boulevard, near Dolphine Avenue, east of Cabrillo Highway. The site is vegetated with wild grass and low growing vegetation. The site is located within a developed single-family residential neighborhood.

Chronology:

<u>Date</u>	<u>Action</u>
May 3, 2019	- Application submitted.
November 14, 2019	- The project was reviewed and continued by the Coastside Design Review Committee in order to provide the applicant with the opportunity to reduce massing by decreasing internal height and lowering the grade of the house, in response to feedback from the Coastside Design Review Committee.
February 13, 2020	- Revised project continued by the Coastside Design Review Committee in order to allow the applicant to further respond to concerns about massing by recessing the second story from the first story and reducing the front entry door columns from two-story to one-story.
April 9, 2020	- Revised project reviewed and recommended for approval by the Coastside Design Review Committee.
May 11, 2020	- Design Review and Grading Permit approved by Community Development Director.
May 15, 2020	- Revised Decision Letter mailed to correct project appeal end date from May 25, 2020 to May 26, 2020 due to the Memorial Day Holiday.
May 26, 2020	- Project appeal filed.

DISCUSSION

A. **KEY ISSUES**

1. **COASTSIDE DEVELOPMENT REVIEW COMMITTEE ACTION AND COMPLIANCE WITH COASTSIDE DESIGN REVIEW STANDARDS**

Coastside Design Review Committee Hearing (November 2019)

The Coastside Design Review Committee initially reviewed the development proposal for a new 2,762 sq. ft. single-family residence, which includes an attached 481 sq. ft. two-car garage, on November 14, 2019 (Attachment C – Original Proposal). Upon review, the CDRC considered the design and public testimony and requested redesign to reduce the mass of the house and blend it to be more similar in size the adjacent homes, including lowering the roofline and making sure all the information is included on all applicable plan sheets.

The CDRC continued the hearing to a future date, recommending that the applicant address the following items:

- a. Redesigning the house with massing similar to the adjacent house on the downhill side.
- b. Lowering the footprint/grade of the garage and the house.
- c. Lowering the roofline of the garage.
- d. Stepping the house down the hill in the direction of the natural grade. Reduce the size of the crawl space under the house.
- e. Redesigning the dormer over the entry to reduce the roof height and inner volume.
- f. Provide the specific model and manufacturer’s cutsheet of the garage door.
- g. Either open the furred walls at the front entry or add their area to the floor area ratio (FAR).
- h. Update the civil sheets to be consistent with the floor plan and the landscape plan.

Coastside Design Review Committee Hearing (February 2020)

The Applicant redesigned the project to comply with the CDRC comments (Attachment D – Revision 2). The revised drawings show an overall lowered height of approximately 5 feet which included lowering internal ceilings and the height of the crawl space. The Coastside Design Review Committee (CDRC) reviewed the revised proposal on February 13, 2020 and considered testimony from the public including opposition citing continued inconsistencies with the mass of the proposed residence. After consideration, the applicant agreed to further reduce the house mass by recessing the second-story back from the first-story (Attachment D) and to address the additional CDRC requirements, as follows:

- a. Making the shed roofs that flank each side of the front entry larger to set the second-floor back.
- b. Changing the entry expression to be a single-story expression.
- c. Shifting the master bedroom suite away from the south property line in order to introduce the first-floor roof and set the second-floor back from the first-floor.
- d. Removing the story poles within one week.

Suggestion (not required by the CDRC)

- a. Step down the master suite/living room/kitchen area to visually break up the roofline and follow the natural grade.

Coastside Design Review Committee Hearing (April 2020)

The applicant redesigned the project to comply with the CDRC February 13, 2020, comments (Attachment E – Revision2). As modified, the 2,771 sq. ft. Residence and attached 507 sq. ft. two-car garage, reduced massing by recessing the second- story back from the first-story, adding a shed roof on each side of the front door entry, and changing the front door entry from two-stories to one-story. The Coastside Design Review Committee reviewed this revised proposal on April 9, 2020 and considered public testimony citing continued opposition to the bulk of the proposed residence, the lack of articulation to the second-story master bedroom and bathroom, overall height, and the house front left corner roof eave encroachment into the left side yard setback. The CDRC stated the applicant made significant changes to reduce the massing of the house and recommended approval of the project with a vote of 3-0. (Attachment F –Approval Letter).

B. APPEAL OF THE COMMUNITY DEVELOPMENT DIRECTOR'S APPROVAL

On May 26, 2020, Planning staff received an appeal filed by the property owner of 631 El Granada Boulevard (a parcel to the south of the project site, within viewing distance).

The following discussion summarizes the major points of the appeal, shown by underlines, followed by Staff's response:

1. Under General Plan Policy 15.3, the Commission is to "integrate data on natural hazards into review of land use and development proposals in order to identify hazardous areas, potential constraints to development and/or appropriate mitigation measures." Under the regulatory umbrella of General Plan policy numbers 15.3, 15.12, 15.13, 15.20, 15.21, 15.26, and 15.27, Mr. Zheng's proposed project presents Geotechnical, Erosion and Fire Hazards, as defined under General Plan Policy Numbers 15.5, 15.6, 15.9, 15.10, et seq.

Staff's Response: Policies 15.3, (*Incorporate Information of Natural Hazards into Land Use and Development Decisions*), 15.5 (*Definition of Geotechnical Hazards*), 15.9 (*Designation of Geotechnical Hazard Areas*), 15.12 (*Locating New Development in Areas Which Contain Natural Hazards*), 15.13 (*Abatement of Natural Hazards*), 15.20 (*Review Criteria for Locating Development in Geotechnical Hazard Areas*), and 15.21 (*Requirement for Detailed Geotechnical Investigations*), discuss integrating data on natural hazards into the review of land use and development proposals in order to identify hazardous areas, potential constraints to development and/or appropriate mitigation measures. These policies also define and designate hazards, including geotechnical, fire, and flooding.

According to the San Mateo County Geographic Information System, the property and surrounding area is not located in a mapped Alquist-Priolo Earthquake Fault Zone, or a landslide or liquefaction zone. FEMA maps indicate the property to be in Zone X, an area of minimal flooding. As required by the Grading Regulations, the applicant submitted a Geotechnical Report and revised drainage plans on July 21, 2020. The Geotechnical Report, prepared by Sigma Prime, stated that the report was based on: *published information on the geologic and seismic conditions in the site vicinity, site reconnaissance, subsurface study (including 2 soil borings at the site), engineering analysis and evaluation of subsurface data to develop geotechnical design criteria, and recommendation for the proposed structure.*

The report concluded that the site is suitable for the proposed construction. As noted in the report, based on soil borings and field investigation, there is

no likelihood of liquefaction or differential compaction, as the parcel contains competent bedrock, and the design of the residence will be constructed to meet current earthquake resistance standards. Recommendations for foundations, impervious surface drainage, and observation and testing of earthwork will be further reviewed at the building permit stage by the Building Division's Geotechnical and Drainage Engineers once the structural plans are submitted. As is typical of projects during the Planning entitlements stage, geotechnical approval is conditional, pending more detailed review during the building permit stage.

Regarding fire hazards, the parcel is located in a Very High Fire Severity Zone. The Coastside Fire Protection District has reviewed the project and granted conditional approval. In addition to standard conditions for new residences (hard wired smoke detectors and automatic fire sprinkler system), roofing (Class A), attic ventilation, exterior walls, windows, exterior doors, decking, floors and underfloor protection are required to comply with California Residential Code *R337 Materials and Construction Methods for Exterior Wildlife Exposure* requirements. Vegetation management for defensible space is also required.

The project has been reviewed for potential hazards and is compliant as conditioned.

2. The project does not comply with the following fire policies, 15.6 (Definition of Fire Hazards), 15.10 (Designation of Fire Hazard Areas), 15.26 (Determination of the Existence of a Fire Hazard), and 15.27 (Appropriate Land Uses and Densities in Fire Hazard Areas) which discuss designated Fire Hazard areas as defined by the California Department of Forestry/County Fire Department, in higher density areas, to have adequate access for the fire protection vehicles and demonstrate adequate water supply and fire flow insure adequate service by CDF/ County Fire Department or appropriate fire protection service.

Staff's Response: The project is located in a wildland urban interface area, where development meets undeveloped wildland or vegetation fuels. As discussed above, the project has been reviewed and received conditional approval from the Coastside Fire Protection District, the fire authority for this area. At the building permit stage, the applicant will be required to upgrade the fire hydrant, located within the required 500 feet from the property, and substantiate adequate fire flow and pressure in addition to any road improvements necessary to maintain a 20-foot wide asphalted road.

3. The appellant states he has a 1,200 sq. ft. prescriptive easement, established by the prior property owner, on the subject property which affects the lot coverage, floor area ratio and right-side setbacks of the proposed single-family residence. The proposed residence sits on top of

the easement and also the left front roof eave encroaches into the easement. Litigation between the appellant and the applicant regarding the alleged prescriptive easement is currently ongoing.

Staff's Response: The appellant has filed a civil suit against the applicant to claim a prescriptive easement on the applicant's property. Specifically, the appellant alleges an easement area of approximately 1,200 sq. ft. located within the proposed left side yard, running parallel to the left property line is within the easement area. The civil suit is ongoing, and the trial court has not made a determination about the alleged prescriptive easement, both in terms of the existence of the easement itself, and what rights they appellant may or may not be entitled to. The appellant argues that the roof tiles and vegetation that has existed on this area of the property for five years, has established a prescriptive easement of approximately 1,200 sq. ft. in the appellant's favor. The appellant further asserts that, taking into account the alleged prescriptive easement, the applicant's proposed setbacks, lot coverage, and floor area require adjustments to account for a smaller gross lot size.

The applicant wishes to proceed with a hearing on the appeal of the planning permits despite the pending litigation, and the existence of the litigation does not prevent County from processing the permits required to construct the project. In the event the appellant receives a judgement quieting title as to the disputed property area, the proposed residence may need to be redesigned, which would likely require a new application and review process by the Coastside Design Review Committee and Community Development Director.

4. The roof eave encroaches into the left -side yard setback beyond what is permitted for a standard roof eave depth and it also encroaches into the 1,200 sq. ft. prescriptive easement.

Staff Response: Roof eaves of up to two feet in depth are allowed to encroach into setbacks. The original roof eave in this location was designed properly with the standard 2 feet depth with exception to the corner point where the eave encroaches into the left side yard setback by 2 ft. 6 inches, where 2 feet is allowed. Staff noted this encroachment after CDRC approval and requested that the applicant redesign the roof eave to comply. The applicant has done so and the roof eave no longer encroaches into the left side yard setback, beyond the 2 ft. normally permitted. This change was approved as a minor modification by the Design Review Officer as allowed under Condition #1.

5. The project has not retained a qualified geotechnical engineer to perform required analysis and prepare proper reports, particularly in view of the modified design. Charlies Kissick, of Sigma Prime Geosciences Inc., is a

civil engineer, rather than a registered Geotechnical Engineer per the qualifications established by the California State Board of Professional Engineers, Lands Surveyors, and Geologists. The project plans have changed multiple times since Mr. Kissicks July 2019 report. The Planning Department's May 11, 2020 approval letter indicates the geotechnical analysis will occur, after the project receives Planning Department approval, but it is imprudent given that the geotechnical implications directly affect the feasibility of building a large house on a steep hillside. The project does not comply with General Plan policy 15.20a-b, avoiding construction in steeply sloping areas (generally above 30 percent).

Staff Response: State law allows civil engineers to prepare geotechnical reports pursuant to California Business and Professions Code, Division 3, Chapter 7, Article 3, Section 6735(a) which states: *All civil (including structural and geotechnical) engineering plans, calculations, specifications, and reports (hereinafter referred to as "documents") shall be prepared by, or under the responsible charge of, a licensed civil engineer and shall include his or her name and license number.* The geotechnical license is an additional license that a civil engineer may choose to obtain, but it does not provide a civil engineer with any additional practice authority. Further, a geotechnical license allows the license holder to use the title of geotechnical engineer, but all licensed engineers can offer and provide geotechnical engineering services. As is common with development, geotechnical reports may be modified in response to changes in project scope or as a result of Department review. As conditioned, the project conforms to General Plan Policy 15.20.a-b, particularly with Policy 15.20(d) that *allows for residences in steeply slopes areas when appropriate structural design measures to ensure safety and reduce hazardous conditions to an acceptable level are incorporated into the project.* The report concluded that the site is suitable for the proposed construction provided the recommendations in the report are followed.

6. The proposal compromises the integrity of the hillside, thereby endangering neighboring properties and causing sedimentary pollution in nearby waters. The project lacks a proper drainage system and erosion control.

Staff Response: The proposed Drainage Plan and Drainage Calculations, prepared by the civil engineer, was subsequently revised July 21, 2020, after Planning approval was issued and has been reviewed and granted conditional approval by the Building Division's drainage engineer. The revised drainage system will provide the required protection and complies with the County's drainage requirements. Further, the erosion and sediment control plan has been reviewed by drainage staff and meets County requirements.

7. General Plan policies indicate that environmental concerns are critical when considering building a project. The project should comply with General Plan policies 1.23 (Regulate Development to Protect Vegetative, Water, Fish and Wildlife), 1.25 (Protect Vegetative Resources), 1.26 (Protect Water Resources), 2.2 (Minimize Soil Erosion), 2.9 (Definition of Soil Erosion), 2.17 (Regulate Development to Minimize Soil Erosion and Sedimentation), 2.23 (Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion), and 2.25 (Regulate Topsoil Removal Operations Against Accelerated Soil Erosion). The Planning Commission should prevent environmental damage particularly erosion control effects to waterways and riparian corridors.

Staff's Response: The submitted biologist report noted that no special-status wildlife species are documented or likely to occur within the project area. To ensure no potential adverse impacts to special-status species, a condition of approval is recommended to require pre-construction surveys for nesting birds prior to shrub removal activities, and that these vegetation removal activities occur during the non-nesting season. There is no anticipated impact to natural creeks or waterways; upon review of the County's Geographic Information System map, the nearest creek is Deer Creek, approximately 600 feet west of the parcel and the subject neighborhood. The Drainage Plan, Drainage Calculations, and Erosion and Sediment Control Plan have been reviewed by drainage staff, found to comply with all applicable standards, and provide for the protection of water quality both during and after construction.

8. The proposal exacerbates fire danger in a highly vulnerable zone and does not provide sufficient setback for vegetation management. The property is located in a "very high fire hazard severity zone". Given the proposed side setbacks of 10 feet, it will be virtually impossible for fire personnel to have ground access to fight a wildfire. As a result, the design plan endangers both Mr. Zheng's proposed house along with those of the entire neighborhood if a fire were to enter the canyon and move up the hillside.

Staff's response: See staff's response under Sections B.1. and 2., above

9. The Planning and Building Department's analysis lacks transparency and appears designed to avoid appellate review of staff's decision. On November 6, 2019, the appellant requested a geotechnical report and soils report related to the project. The report was not provided. The May 11, 2020 approval letter noted a submitted biologist report for the project. This report was also not provided to the public nor posted on the website.

Staff Response: Prior to the CDRCs initial request to redesign the residence, a grading permit was not required because the project is not located in a known geotechnical hazard area. If a project is not located in a

known geotechnical hazard area, a geotechnical/soils report is not required during Planning permit processing. Subsequent to the redesign, however, the applicant proposed 330 cubic yards of grading, which requires a grading permit and an associated geotechnical/soils report. Staff requested the geotechnical/soils report from the applicant on January 24, 2020. Independent of staff's request for a geotechnical/soils report, however, the landowner prepared the report and it was provided to the appellant after the November 14, 2019 CDRC hearing. The biologist report was submitted to the Department on January 16, 2020 and the appellant was provided a copy on September 3, 2020, following his request for the report, which was submitted in conjunction with the appeal.

C. ANALYSIS OF PROJECT COMPLIANCE WITH APPLICABLE COUNTY POLICIES AND REGULATIONS

1. Conformance with the County General Plan

Upon review of the applicable provisions of the General Plan, staff has determined that the project complies with all General Plan Policies, including the following:

a. Soil Resource Policies

Policies 2.17 (*Regulate Development to Minimize Soil Erosion and Sedimentation*) and 2.23 (*Regulation Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion*) discuss ensuring minimizing soil erosion and sedimentation, stabilization of disturbed areas, and protection of natural plant communities and areas of fish and wildlife.

The submitted Geotechnical Investigation report, prepared by Sigma Prime, evaluated the project area. The site is not located in an Alquist- Priolo special studies area or zone where fault rupture is considered likely. Active faults are not believed to be existing beneath the site and the potential for fault rupture to occur is low. The site is located in an active seismic area, with moderate to large earthquakes probable. The proposed single-family residence should be designed and constructed in accordance with current earthquake resistance standards. Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle. The likelihood of significant damage to the structure from differential compaction is low. Liquefaction, loose silty sands below a water table and soils susceptible, do not exist at the site, therefore liquefaction is not expected to occur at the site. The rear of the property has a slope of 50 to 60 percent. About 300 feet below the house site shows scattered shallow soil failures, these types of failures

are not expected to impact the proposed house site due to the steep canyons are quite a distance below the top of the hillside. Grading totaling 330 cubic yards is proposed to implement the project for the new single-family residence with an attached two-car garage.

The applicant has submitted an erosion control plan prepared by Sigma Prime that includes a temporary construction entrance, concrete washout, and fiber rolls. The erosion control plan will require fiber rolls on the downslope (westward of the proposed residence) and has been reviewed by Planning staff. Staff has conditioned the project to prohibit grading during the wet season (October 1-April 30) to avoid the increased potential for soil erosion (unless an Exception to the Winter Grading Moratorium is granted by the Community Development Director).

b. Visual Quality

Policy 4.26 (*Earthwork Operations*) discusses keeping grading or earth -moving operations to a minimum and when grading is necessary, make graded areas blend with adjacent landforms through the use of contour grading rather than harsh cutting or terracing of the site.

Earthwork includes, 330 cubic yards of cut to is proposed for the project which will be to recess the house into the ground in order to reduce the overall mass. The cubic yards is considered a minimal amount (just exceeding the amount of 250 cubic yards covered by a building permit). The grading will be limited to construct the proposed development and revegetation will be done as part of the approved landscape plan.

Policy 4.35 (*Urban Area Design Concept*) calls for new development to maintain and, where possible, improve upon the appearance and visual character of development in urban areas, and ensures that new development in urban areas is designed and constructed to contribute to the orderly and harmonious development of the locality.

The Design Review standards implement this policy within Design Review Zoning Districts of the County, including the Midcoast. In approving the project, the CDRC found that upon redesign of the single-family residence, the project complies with this policy 4.35. A discussion of compliance with design review standards is detailed under section C.3.b. of this report.

c. Urban Land Use

Policy 8.38 (*Height, Bulk and Setbacks*) regulates the height, bulk and setback requirements in zoning districts to: (1) ensure that the size and scale of development are compatible with the parcel size, (2) provide sufficient light and air in and around the structures, (3) ensure that development of permitted densities is feasible, and (4) ensure public health and safety.

The proposed two-story structure meets the zoning district height standards and is compatible in design, scale and size with other residences located in the neighborhood. The appearance of mass and bulk of the new residence is reduced by the second-story stepping back from the first-story, the positioning and minimization of the roof mass relative to the main floor has reduced the overall bulk. The house and its foundation has been recessed into the existing grade in order to lower the overall height. The design of the new structure is complementary to the existing neighborhood context, as supported by the Coastside Design Review Committee's approval.

d. Water Supply

Policy 10.10 (*Water Suppliers in Urban Areas*) recommends water systems as the preferred method of water supply in urban areas. Discourages use of wells to serve urban uses.

The Coastside County Water District has confirmed that a water service connection is available for this site.

e. Wastewater

Policies: 11.5 (*Wastewater Management in Urban Areas*) Consider sewerage systems as the appropriate method of wastewater management in urban areas.

Granada Community Services District has provided staff with a project review comment letter indicating adequate capacity to serve the project, subject to conditions, including requiring the Applicant to obtain a Sewer Connection Permit.

f. Natural Hazards

Policy 15.20 (*Review Criteria of Locating Development in Geotechnical Hazard Areas*) and Policy 15.21 (*Requirement for Detailed Geotechnical Investigation*) seek to avoid siting structures in areas where they are jeopardized by geotechnical hazards; avoid areas that would increase geotechnical hazard to neighboring

properties; where possible, avoid construction in steeply sloping areas (generally above 30 percent); require adequate geotechnical investigation for private development proposals located in an Alquist-Priolo Special Studies Zone.

As discussed under Policies 2.17 and 2.23, the site is not located in an Alquist-Priolo special studies area or zone where fault rupture is considered likely. Active faults are not believed to be existing beneath the site and the potential for fault rupture to occur is low. Additionally, the grading will be limited to construct the proposed development. The proposed single-family residence should be designed and constructed in accordance with current earthquake resistance standards. Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle. The likelihood of significant damage to the structure from differential compaction is low. The rear of the property, beyond the area of the proposed construction, has a slope of 50 to 60 percent, thus the project is not proposed in an area of greater slope than 30 percent. About 300 feet below the house site location, the land shows scattered shallow soil failures, these types of failures are not expected to impact the proposed house site as the steep canyons are quite a distance below the top of the hillside.

Fire Hazards

Policies 15.27(a) (*Appropriate Land Uses and Densities in Fire Hazard Areas*), 15.28 (*Review Criteria for Locating Development in Fire Hazard Areas*), Policy 15.30 (*Standards for Water Supply and Fire Flow for New Development*) and policy 15.31 (*Standards for Road Access for Fire Protection Vehicles to Serve New Development*) require higher density land uses to be appropriate if development can be served by CDF/County Fire Department, a fire protection district or a city fire department, that adequate access for fire protection vehicles is available, sufficient water supply and fire flow can be guaranteed; when development is proposed in hazardous fire areas, require that it be reviewed by the County Fire Warden to ensure that building materials, access, vegetative clearance from structures, are in conformance to the fire policies of the General Plan; spacing and installation of fire hydrants in accordance with standards of the responsible fire protection agency, consider additional on site fire protection devices such as residential sprinkler systems; adequate access for fire protection vehicles, adequate turn around radius, road widths, shoulders and other road improvements on conformance with the standards of the agency responsible.

The project is located within a High Fire Hazard Severity Zone. The project plans have been reviewed by the Coastside Fire Protection District, and conditionally approved. Public access exists using El Granada Blvd., an existing improved right of way that is currently used to access existing homes in the neighborhood. At the

building permit stage, the applicant will be required to upgrade the fire hydrant, located within the required 500 feet from the property, install residential sprinklers and substantiate adequate fire flow and pressure in addition to any road improvements necessary to maintain a 20-foot wide asphalted road. Again, Coastside Fire Protection District has granted conditional approval of the project. Coastside County Water District has reviewed the project and indicated that water service can be provided.

2. Conformance with the Local Coastal Program (LCP)

The project qualifies for a Coastal Development Permit Exemption as the site is located in the Single-Family Residence Development Categorical Exclusion Area. The parcel is not located in a scenic corridor, nor is the property adjoin in an area of sensitive habitat. Because the project parcel meets the minimum lot size prescribed by the S-17 combining district and this project requires no exceptions to such standards, the project qualifies for a Coastal Development Exemption; as a result, additional LCP policies do not apply.

3. Conformance with the Zoning Regulations

The proposal complies with the property's R-1/S-17/DR/CD Zoning provisions, as indicated in the following table:

	S-17 Development Standards	
	Required	Proposed
Minimum Building Site	5,000 sq. ft.	5,230 sq. ft.(existing)
Minimum Side Yard	Combined 15 ft, minimum 5 ft on one side	10 ft. (Left side) 5 ft. (Right side)
Minimum Front Yard	20 ft.	7 ft. 6 in.(allowed per Section 6408, Zoning Regulations)
Minimum Rear Yard	20 ft.	40 ft.
Maximum Building Height	28 ft.	23 ft. 8 inches
Maximum Lot Coverage	25% (4,350 sq. ft.)	15% (1,830 sq. ft.)
Floor Area Ratio	53% (2,771 sq. ft.)	53%(2,771 sq. ft.)

4. Conformance with Design Review District Standards

The CDRC considered the project at regularly scheduled CDRC meetings on November 14, 2019, February 13, 2020 and April 9, 2020.

After redesign of the project, on April 9, 2020, the CDRC adopted the findings to approve the project, pursuant to the Design Review Standards for One-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Zoning Regulations, specifically elaborated as follows:

Section 6565.20 (C) SITE PLANNING AND STRUCTURE PLACEMENT; 1. Integrate Structures with the Natural Setting; b. Grading; (3): Despite its location on a hillside, design limits grading to 330 cubic yards for the footprint of the garage and its immediate vicinity.

Section 6565.20 (D) ELEMENTS OF DESIGN; 2. Architectural Style and Features; d. Garages; (1): Use of a decorative garage door is consistent with the style of the house, avoids making the garage the dominant feature as seen from the street, and complements the articulation of the front elevation facade.

Section 6565.20 (D) ELEMENTS OF DESIGN; 3. Roof Design; a. Massing and Design of Roof Forms; (1): Secondary roof forms and single-story expression in the front elevation serve to reduce the house's apparent mass and scale, provide visual interest, and are compatible with the slope and material of the primary roof form.

5. Conformance with the County Grading Ordinance

- (a) **That the granting of the permit will not have a significant adverse effect on the environment.**

The proposed single-family residence is in conformance with the General Plan and Zoning Designation for the property. The proposed grading supports the construction of the residence and allows for the house to have a lower ridge height and set into the slope of the property, thereby reducing bulk and mass of the structure. The submitted biologist report noted that no special-status wildlife species are documented nor are any such species likely to occur within the project area. To ensure no potential adverse impacts to special-status species occurs, a condition of approval is recommended to require pre-construction surveys for nesting birds for shrub or tree removal activities and that these

vegetation removal activities occur during the non-nesting season.

Further, this project has been reviewed and recommended conditional approval by the Department of Public Works, Geotechnical staff, Building Inspection Section and the Coastside Fire Protection District. With implementation of the proposed Grading Plan prepared by a licensed civil engineer and associated conditions of approval, regarding protection of special-status species will ensure the project will not have a significant adverse effect on the environment.

- (b) **The project conforms to the criteria of Chapter 5, Division VII, San Mateo County Ordinance Code, including the standards referenced in Section 9296.**

Planning staff, the Geotechnical Section, the Building Inspection Section, Coastside Fire Protection District) and the Department of Public Works have reviewed the project and have determined its conformance to the criteria of Chapter 5, Division II, San Mateo County Ordinance Code, including the standards referenced in section 9296 and the San Mateo County General Plan, including timing of grading activity, implementation of erosion and sediment control measures, and dust control measures.

- (c) **That the project is consistent with the General Plan.**

The subject site has a General Plan land use designation of Medium Density Residential Urban. The proposed single-family residence is in-fill development which is consistent with the allowed density and use of the designation. The project also conforms with the Design Review standards for the Midcoast area and with the development standards of the S-17 Zoning District which aids in the orderly and harmonious development of the parcel as it relates to the surrounding neighborhood. Therefore, the project as proposed and conditioned is consistent with the San Mateo County General Plan.

D. ENVIRONMENTAL REVIEW

This project is exempt from environmental review pursuant to the California Environmental Quality Act (CEQA), Section 15303, Class 3(a), relating to the construction of one single-family residence in an urban, residential zone.

E. REVIEWING AGENCIES

Building Inspection Section
Department of Public Works
Geotechnical Section
Coastside Fire Protection District
Granada Community Services District
Coastside County Water District

ATTACHMENTS

- A. Recommended Findings and Conditions of Approval
- B. Vicinity Map
- C. Original Proposal Plans
CDRC comments
- D. Revision 1 Plans
CDRC comments
- E. Revision 2 Plan
- F. CDRC Approval Letter
- G. Appeal Statement
- H. Revised Plan (Dated July 21, 2020)
- I. Site Photos
- J. Biologist Report
- K. Geotechnical Report
- L. April 8, 2020 Letter

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County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2019-00162 Hearing Date: October 14, 2020

Prepared By: Olivia Boo, Project Planner For Adoption By: Planning Commission

RECOMMENDED FINDINGS

The Planning Commission finds that:

For the Environmental Review Find:

1. This project is exempt from environmental review pursuant to the California Environmental Quality Act (CEQA), Section 15303, Class 3(a), relating to the construction of one single-family residence in an urban, residential zone.

For the Design Review Find:

2. The project has been reviewed under and found to be in compliance with the Design Review Standards for One-Family and Two-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Regulations, specifically discussed as follows:
 - a. Section 6565.20 (C) SITE PLANNING AND STRUCTURE PLACEMENT; 1. Integrate Structures with the Natural Setting; b. Grading; (3): Despite its location on a hillside, design limits grading to 330 cubic yards for the footprint of the garage and its immediate vicinity.
 - b. Section 6565.20 (D) ELEMENTS OF DESIGN; 2. Architectural Style and Features; d. Garages; (1): Use of a decorative garage door is consistent with the style of the house, avoids making the garage the dominant feature as seen from the street, and complements the articulation of the front elevation facade.
 - c. Section 6565.20 (D) ELEMENTS OF DESIGN; 3. Roof Design; a. Massing and Design of Roof Forms; (1): Secondary roof forms and single-story expression in the front elevation serve to reduce the house's apparent mass and scale, provide visual interest, and are compatible with the slope and material of the primary roof form.

For the Grading Permit

3. That the granting of the permit will not have a significant adverse effect on the environment. As discussed in this staff report, no sensitive habitats or special-status wildlife species are documented nor are any such species likely to occur within the project area. No tree removal is proposed.
4. That the project conforms to the criteria of this chapter [Grading Ordinance Section 9280], including the standards referenced in Section 9296 and that the project is consistent with the General Plan. The project, as proposed and conditioned, conforms to the standards in the Grading Regulations, including those relative to erosion and sediment control, dust control, fire safety, and timing of grading activity.
5. That the project is consistent with the General Plan specifically policies related to vegetative, water, fish, and wildlife resources and soil resources. The project will be in an urban residentially zoned area. The Drainage Plan, Drainage Calculations, and Erosion and Sediment Control Plan have been reviewed by drainage staff and granted conditional approval. The project, as proposed and conditioned, complies with applicable design review standards and will connect to local public utilities. Conditions of approval have been provided to ensure that grading operations minimize erosion and sedimentation resulting from the project.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The project shall be constructed in compliance with the plans approved by the Planning Commission on October 14, 2020. Any changes or revisions to the approved plans shall be submitted to the Community Development Director for review and approval prior to implementation. Minor adjustments to project design may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Alternatively, the Design Review Officer may refer consideration of the revisions to the Coastside Design Review Committee, with applicable fees to be paid.
2. The Grading Permit and Design Review Permit shall be valid for five (5) years from the date of approval, in which time a Building Permit shall be issued and a completed inspection (to the satisfaction of the Building Inspector) shall have occurred within 180 days of its issuance. The design review permit may be extended by a one (1)-year increment with submittal of an application for permit extension and payment of applicable extension fees sixty (60) days prior to the expiration date.
3. The applicant shall include a copy of this letter on the top pages of the building plans.

4. The applicant shall provide “finished floor elevation verification” to certify that the structure is actually constructed at the height shown on the submitted plans. The applicant shall have a licensed land surveyor or engineer establish a baseline elevation datum point in the vicinity of the construction site.
 - a. The applicant shall maintain the datum point so that it will not be disturbed by the proposed construction activities until final approval of the building permit.
 - b. This datum point and its elevation shall be shown on the submitted site plan. This datum point shall be used during construction to verify the elevation of the finished floors relative to the existing natural or to the grade of the site (finished grade).
 - c. Prior to Planning approval of the building permit application, the applicant shall also have the licensed land surveyor or engineer indicate on the construction plans: (1) the natural grade elevations at the significant corners (at least four) of the footprint of the proposed structure on the submitted site plan, and (2) the elevations of proposed finished grades.
 - d. In addition, (1) the natural grade elevations at the significant corners of the proposed structure, (2) the finished floor elevations, (3) the topmost elevation of the roof, and (4) the garage slab elevation must be shown on the plan, elevations, and cross-section (if one is provided).
 - e. Once the building is under construction, prior to the below floor framing inspection or the pouring of the concrete slab (as the case may be) for the lowest floor(s), the applicant shall provide to the Building Inspection Section a letter from the licensed land surveyor or engineer certifying that the lowest floor height, as constructed, is equal to the elevation specified for that floor in the approved plans. Similarly, certifications on the garage slab and the topmost elevation of the roof are required.
 - f. If the actual floor height, garage slab, or roof height, as constructed, is different than the elevation specified in the plans, then the applicant shall cease all construction and no additional inspections shall be approved until a revised set of plans is submitted to and subsequently approved by both the Building Official and the Community Development Director.
5. The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program “General Construction and Site Supervision Guidelines,” including, but not limited to, the following:
 - a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

- b. Protection of adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
- c. Performing clearing and earth-moving activities only during dry weather.
- d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.
- e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.
- f. Control and prevention of the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges, to storm drains and watercourses.
- g. Use of sediment controls or filtration to remove sediment when dewatering the site and obtain all necessary permits.
- h. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
- i. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.
- j. Limiting construction access routes and stabilization of designated access points.
- k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.
- l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.
- m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.
- n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

6. All new power and telephone utility lines from the street or nearest existing utility pole to the main dwelling and/or any other structure on the property shall be placed underground.
7. The applicant shall apply for a building permit and shall adhere to all requirements from the Building Inspection Section, the Drainage Section, the Geotechnical Section, the Coastside Fire Protection District, the Granada Community Services District, and the Coastside County Water District.
8. No site disturbance shall occur, including any grading or vegetation removal, until a building permit has been issued.
9. This permit does not allow for the removal of any trees. Removal of any tree with a diameter equal to, or greater than, 12 inches as measured 4.5 feet above the ground shall require a separate tree removal permit.
10. To reduce the impact of construction activities on neighboring properties, comply with the following:
 - a. All debris shall be contained on-site; a dumpster or trash bin shall be provided on-site during construction to prevent debris from blowing onto adjacent properties. The applicant shall monitor the site to ensure that trash is picked up and appropriately disposed of daily.
 - b. The applicant shall remove all construction equipment from the site upon completion of the use and/or need of each piece of equipment which shall include but not be limited to tractors, back hoes, cement mixers, etc.
 - c. The applicant shall ensure that no construction-related vehicles shall impede through traffic along the right-of-way on El Granada Boulevard. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on El Granada Boulevard. There shall be no storage of construction vehicles in the public right-of-way.
11. The exterior color samples submitted to the CDRC are approved. Color verification shall occur in the field after the applicant has applied the approved materials and colors but before a final inspection has been scheduled.
12. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving and Christmas (San Mateo County Ordinance Code Section 4.88.360).
13. Installation of the approved landscape plan is required prior to final inspection.

14. At the building permit application stage, the project shall demonstrate compliance with the Water Efficient Landscape Ordinance (WELo) and provide the required forms. WELo applies to new landscape projects equal to or greater than 500 sq. ft. and rehabilitated landscape projects equal to or greater than 2,500 square feet. A prescriptive checklist is available as a compliance option for projects under 2,500 square feet. The Performance approach is applicable to new and/or rehabilitated landscape projects over 2,500 square feet.
15. The applicant shall implement the following dust control measures during grading and construction activities:
 - a. Water all active construction and grading areas at least twice daily.
 - b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
 - c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at the project site.
 - d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public street/roads.
 - e. Enclose, cover, water twice daily or apply (non -toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

Grading Conditions

16. No grading shall be allowed during the winter season (October 1 to April 30) to avoid potential soil erosion. The applicant shall submit a letter to the Current Planning Section, a minimum of two (2) weeks prior to commencement of grading, stating the date when grading will begin. A Winter Grading Exception may be granted for grading during the winter season at the discretion of the Community Development Director.
17. The applicant shall include an erosion and sediment control plan to comply with the County's Erosion Control Guidelines on the plans submitted for the building permit. This plan shall identify the type and location of erosion control measures to be installed upon the commencement of construction in order to maintain the stability of the site and prevent erosion and sedimentation off-site.
18. No grading activities shall commence until the property owner has been issued a grading permit (issued as the "hard card" with all necessary information filled out and signatures obtained) by the Current Planning Section.

19. Prior to any land disturbance and throughout the grading operation, the property owner shall implement the erosion control plan, as prepared and signed by the engineer of record and approved by the decision maker. Revisions to the approved erosion control plan shall be prepared and signed by the engineer and submitted to the Community Development Director for review and approval.
20. Prior to issuance of the grading permit "hard card," the property owner shall submit a schedule of all grading operations to the Current Planning Section, subject to review and approval by the Current Planning Section. The submitted schedule shall include a schedule for winterizing the site. If the schedule of grading operations calls for the grading to be completed in one grading season, then the winterizing plan shall be considered a contingent plan to be implemented if work falls behind schedule. All submitted schedules shall represent the work in detail and shall project the grading operations through to completion.
21. It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.
22. For the final approval of the grading permit, the property owner shall ensure the performance of the following activities within thirty (30) days of the completion of grading at the project site: (a) The engineer shall submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval/mitigation measures, and the Grading Regulations, to the Department of Public Works and the Planning and Building Department's Geotechnical Engineer, and (b) The geotechnical consultant shall observe and approve all applicable work during construction and sign Section II of the Geotechnical Consultant Approval form, for submittal to the Planning and Building Department's Geotechnical Engineer and the Current Planning Section.
23. An Erosion Control Pre-Construction Site Inspection shall be conducted prior to the issuance of a grading permit "hard card" and building permit to ensure the approved erosion control and/or tree protection measures are installed adequately prior to the start of ground disturbing activities.
24. if shrub removal is to occur during the bird nesting season (February 15 - August 15), a pre-construction nesting bird survey by a qualified biologist is required to avoid potential impacts to special-status or non-special status bird species.

If active nests are observed, the qualified biologist will determine suitable buffers based upon nest location and bird species. Buffers will be dependent upon species, nest location and project activities, but may range between 25-75 feet for passerine birds and up to 250 feet for raptors.

Building Inspection Section

25. A building permit is required.

Drainage Section

26. An updated Drainage Report prepared and stamped by a registered civil engineer.
27. A final Grading and Drainage Plan prepared and stamped by a registered civil engineer.
28. An updated C3 C6 Checklist (if changes to the amount of impervious area were made during the design phase).

Geotechnical Section

29. The peer review of the soils report will occur at the time of building permit application.

Department of Public Works

30. Prior to the issuance of the building permit or planning permit (for Provision C3 Regulated Projects), the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.
31. Prior to the issuance of the building permit or planning permit (if applicable), the applicant shall submit a driveway "Plan and Profile," to the Department of Public Works, showing the driveway access to the parcel (garage slab) complying with County Standards for driveway slopes (not to exceed 20 percent) and to County Standards for driveways (at the property line) being the same elevation as the center of the access roadway. When appropriate, as determined by the Department of Public Works, this plan and profile shall be prepared from elevations and alignment shown on the roadway improvement plans. The driveway plan shall also include and show specific provisions and details for both the existing and the proposed drainage patterns and drainage facilities.

32. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.
33. Prior to the issuance of the Building Permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed building per Ordinance No. 3277.
34. The applicant shall include a driveway curb cut for the proposed project.

Coastside Fire Protection District

35. Smoke Detectors which are hard wired: As per the California Building Code, State Fire Marshal regulations, and Coastside Fire Protection District Ordinance 2016-01, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hardwired, interconnected, and have battery backup. These detectors are required to be placed in each new and recondition sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final. Date of installation must be added to exterior of the smoke alarm and will be checked at final. (Add note to plans).
36. Smoke alarm/detector are to be hardwired, interconnected, or with battery backup. Smoke alarms to be installed per manufactures instruction and NFPA 72. (Add note to plans)
37. Escape or rescue windows shall have a minimum net clear openable area of 5 sq. ft., 5.0 sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor. (CFC 1030). (Add note to plans).
38. Identify rescue windows in each bedroom and verify that they meet all requirements. (Add note to plans).
39. New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. The letters/numerals for permanent address signs shall be 4 inches in height with a minimum 1/2-inch stroke. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. Where buildings are located remotely to the public roadway, additional signage at the driveway/roadway entrance leading to the building and/or on each individual building shall

be required by the Coastside Fire Protection District. This remote signage shall consist of a 6-inch by 18-inch green reflective metal sign with 3-inch reflective Numbers/Letters similar to Hy-Ko 911 or equivalent. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE). Add note to plans).

40. The building is in a Very High Fire Hazard Severity Zone and will require a Class A roof. (Add note to plans)
41. Vegetation Management (LRA) – The Coastside Fire Protection District Ordinance 2016-01, the 2016 California Fire Code 304.1.2. (Add note to plans).
 - a. A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. This is neither a requirement nor an authorization for the removal of living trees.
 - b. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity.
 - c. Remove that portion of any existing trees, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.
42. Fire Access Roads – Add note to plans: The applicant must have a maintained asphalt surface road for ingress and egress of fire apparatus. The City of Half Moon Bay Department of Public Works, San Mateo County Department of Public Works, the Coastside Fire Protection District Ordinance 2016-01, and the California Fire Code shall set road standards. As per the 2016 CFC, dead-end roads exceeding 150 feet shall be provided with a turnaround in accordance with Coastside Fire Protection District specifications. As per the 2016 CFC, Section Appendix D, road width shall not be less than 20 feet. Fire access roads shall be installed and made serviceable prior to combustibles being placed on the project site and maintained during construction. Approved signs and painted curbs or lines shall be provided and maintained to identify fire access roads and state the prohibition of their obstruction. If the road width does not allow parking on the street (20-foot road) and on-street parking is desired, an additional improved area shall be developed for that use. (Add note to plans).
43. Dead end emergency access exceeding 150 feet shall be provided with width and turnaround provisions meeting California Fire Code appendix D. (Add note to plans)

44. Fire Hydrant: There is a hydrant within the required 500 feet but it is a dry barrel hydrant or non-compliant hydrant. Applicant shall change it to the required (Clow 960) hydrant. As per 2016 CFC, Appendix B the hydrant must produce a minimum fire flow of 500 gallons per minute at 20 pounds per square inch residual pressure for 2 hours. Contact the local water purveyor for water flow details. (Add note to plans).
45. Automatic Fire Sprinkler System: (Fire Sprinkler plans will require a separate permit). As per San Mateo County Building Standards and Coastside Fire Protection District Ordinance Number 2016-01, the applicant is required to install an automatic fire sprinkler system throughout the proposed or improved dwelling and garage. All attic access locations will be provided with a pilot head on a metal upright. Sprinkler coverage shall be provided throughout the residence to include all bathrooms, garages, and any area used for storage. The only exception is small linen closets less than 24 sq. ft. with full depth shelving. The plans for this system must be submitted to the San Mateo County Planning and Building Department. A building permit will not be issued until plans are received, reviewed and approved. Upon submission of plans, the County or City will forward a complete set to the Coastside Fire Protection District for review. (Add note to plans).
46. An approved Automatic Fire Sprinkler System meeting the requirements of NFPA-13D shall be required to be installed for your project. Plans shall be submitted to the San Mateo County Building Department for review and approval by the authority having jurisdiction.
47. Add note to the title page that the building will be protected by an automatic fire sprinkler system. (Add note to plans).
48. CRC 2016 Section R337: This project is located in a Local Very High Responsibility Area for wildfire protection. Roofing, attic ventilation, exterior walls, windows, exterior doors, decking, floors and underfloor protection shall comply with CRC 2016 Section R337 requirements. You can visit the Office of the State Fire Marshal's website at [and click the new products link to view the "WUI Products Handbook."](#)
49. Copy R-337 Worksheet to a plan sized sheet and check appropriate boxes.
50. Provide window and door schedule showing it meets R-337 and add it to work sheet. All exterior doors including garage door must meet R-337.
51. Provide Eave and Gutter details that meet R-337 include all materials.
52. Add R-337 required vents to worksheet.

53. All fire conditions and requirements must be incorporated into your building plans, (see attached conditions) prior to building permit issuance. It is your responsibility to notify your contractor, architect and engineer of these requirements.
54. Contact the Fire Marshal's Office to schedule a Final Inspection prior to occupancy and Final Inspection by a building inspector. Allow for a minimum 72-hour notice to the Fire Department at 650/573-3846.
55. Any chimney or woodstove outlet shall have installed onto the opening thereof an approved (galvanized) spark arrester of a mesh with an opening no larger than 1/2-inch in size or an approved spark arresting device. Maintain around and adjacent to such buildings or structures a fuelbreak/firebreak made by removing and cleaning away flammable vegetation for a distance of not less than 30 feet and up to 100 feet around the perimeter of all structures or to the property line, if the property line is less than 30 feet from any structure. This is not a requirement nor an authorization for the removal of live trees. Remove that flammable portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe, or within 5 feet of any portion of any building or structures. Remove that dead or dying portion of any tree which extends over the roof line of any structure.
56. All dead-end roadways shall be appropriately marked to standards of the Department of Public Works. Inspection required at time of installation.
57. All dead-end roadways shall be terminated by a turnaround bulb of not less than 96 feet in diameter.

Granada Community Services District (District)

58. The applicant must obtain a sewer connection permit to connect the project to the District's wastewater facilities.

Coastside County Water District (CCWD)

59. The project is required to comply with Coastside County Water District regulations on water service and meters. The District performs inspections to verify compliance with all District regulations during construction and a final inspection when construction is complete.
60. If fire sprinklers are required by Coastside Fire Protection District, fire sprinklers are served from an independent and dedicated water service connection with a separate fire meter. Coastside County Water District does not allow passive purge systems to be installed on fire protection serviced. Fire protection services are authorized for the sole purpose of fire protection, so there shall be no cross connection.

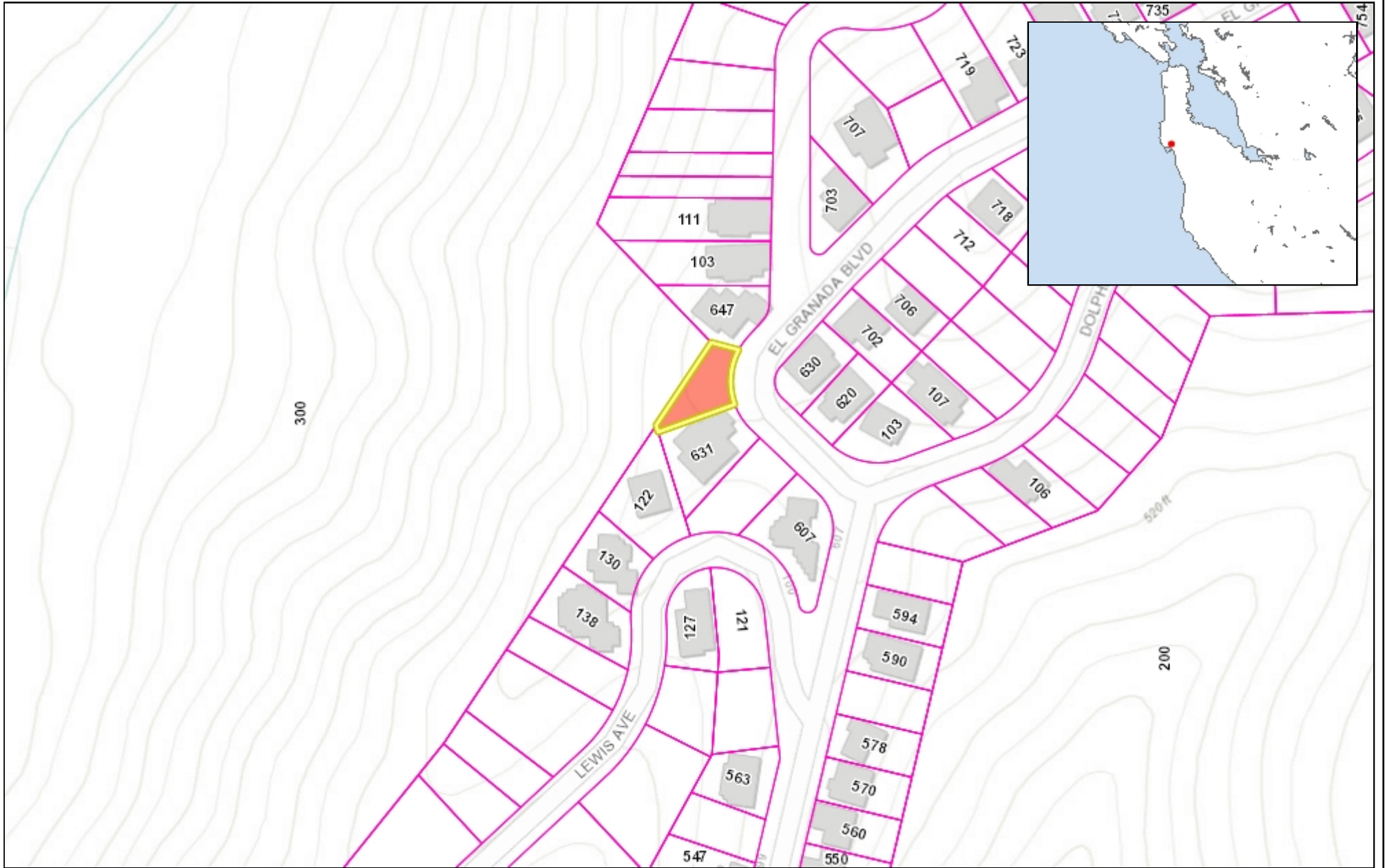
61. A full set of the most recent plans and drawings for the project, including a full set (fire sprinkler, architectural, plumbing, mechanical, green building, structural, civil, utility and landscaping/irrigation) must be submitted to the District for review and approval. Existing and new utilities must be clearly marked on the drawings.

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COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B



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© Latitude Geographics Group Ltd.

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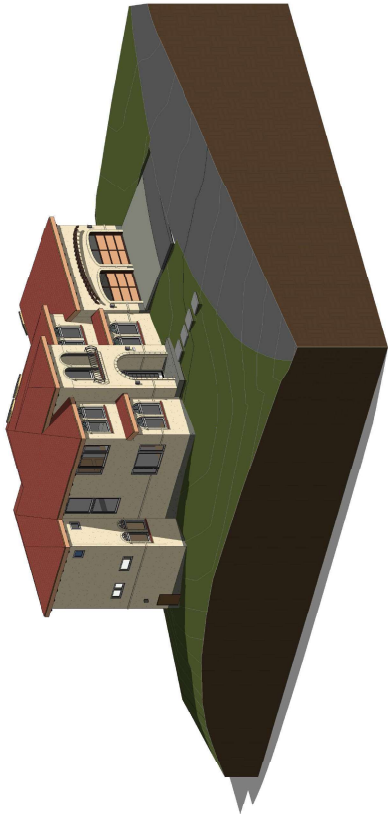
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

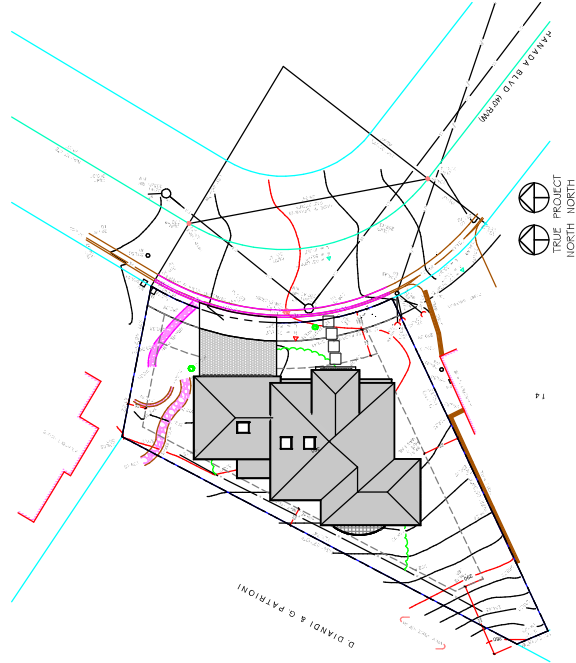


COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C



2. Isometric View



PROJECT NORTH
PROPERTY NORTH

3. Site Plan

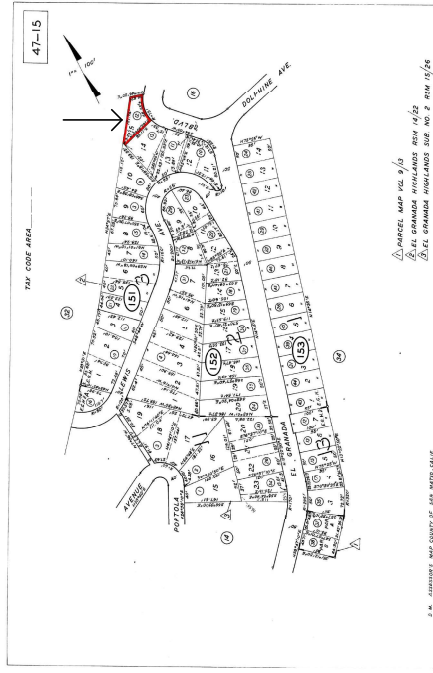
	EXISTING		PROPOSED		TOTAL		ALLOWED	
	AREA (SQFT)	%	AREA (SQFT)	%	AREA (SQFT)	%	AREA (SQFT)	%
LOT AREA	5280							
COVERAGE	0	0.0	1828	35.0	1828	35.0	1830	35.0
FLOOR AREA			1281 1050 Second Flr Garage		1281 1050 Second Flr Garage			
Total	0	0.0	Total	52.8	Total	52.8	Total	2772
								2772
								93.0

SCOPE OF WORKS
CONSTRUCTION OF A WOOD FRAME, TWO STORY FAMILY RESIDENCE, W/ ATTACHED GARAGE

- APPLICABLE CODES:**
SANTA MONTE COUNTY
SANTA MONTE COUNTY ZONING & BUILDING ORDINANCES
2015 CALIFORNIA BUILDING CODE
2015 CALIFORNIA MECHANICAL CODE
2015 CALIFORNIA ELECTRICAL CODE
2015 CALIFORNIA FIRE CODE
2015 CALIFORNIA GREEN BUILDING STANDARDS CODE
2015 CALIFORNIA GREEN BUILDING STANDARDS CODE FOR APARTMENTS OR ASSISTED HOUSING TO THE CALIFORNIA BUILDING CODE

OWNER:
WEL ZHENG
10992 BLUEBELL WAY
COCKEYSVILLE, MD 21030

ARCHITECT:
EDWARD C. LOVE, ARCHITECT (LIC. C23077)
2500 HIGHWAY 101
HALF MOON BAY, CA 94019



DATE: 09/21/19
DRAWN: GHH
JOB: 21019
SHEET: 47-15

EDWARD C. LOVE ARCHITECT
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edward@edwardclovearchitect.com

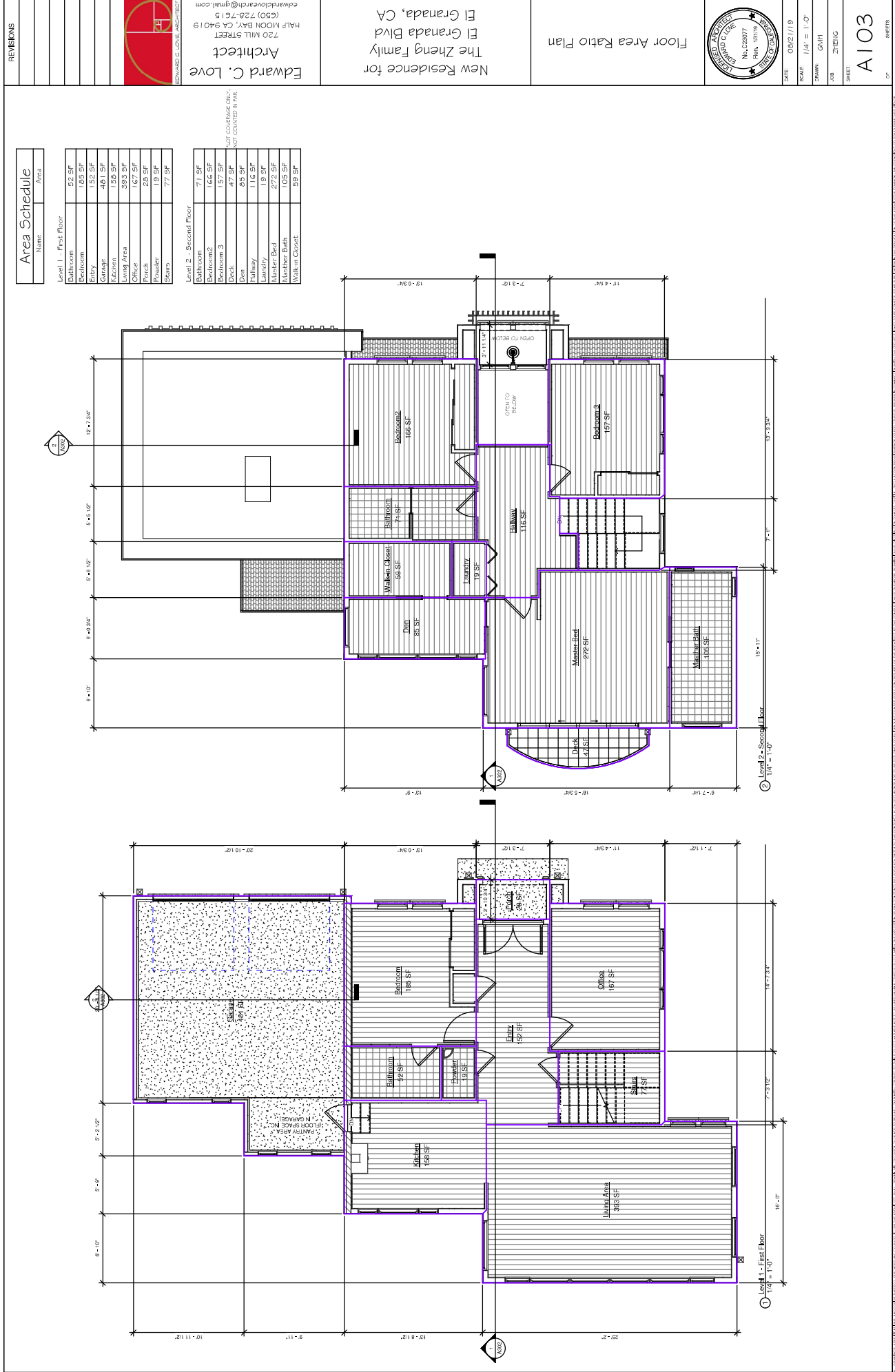
The Zheng Family
El Granada Blvd
El Granada, CA

Cover Sheet

EDWARD C. LOVE ARCHITECT
No. C23077
Exp. 10/31/19

DATE: 09/21/19
DRAWN: GHH
JOB: 21019
SHEET: 47-15

CS



Area Schedule	
Name	Area
Level 1 - First Floor	
Bedroom	92 SF
Bedroom	155 SF
Entry	152 SF
Garage	481 SF
Kitchen	155 SF
Living Area	383 SF
Office	167 SF
Finch	25 SF
Powder	19 SF
Stairs	77 SF

Level 2 - Second Floor	
Bedroom	71 SF
Bedroom 2	166 SF
Bedroom 3	157 SF
Deck	47 SF
Den	83 SF
Entry	18 SF
Master Bed	272 SF
Master Bath	105 SF
Master Closet	59 SF

Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 728-7615
 edwardlovearch@gmail.com

New Residence for
 The Zheng Family
 El Granada Blvd
 El Granada, CA


Floor Area Ratio Plan

DATE: 05/21/19
 SCALE: 1/4" = 1'-0"
 DRAWN: GHM
 JOB: 201719
 SHEET: A103
 OF SHEETS

REVISIONS




REVISIONS



Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardlovearch@gmail.com

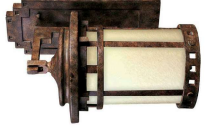
New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Elevations - East &
North



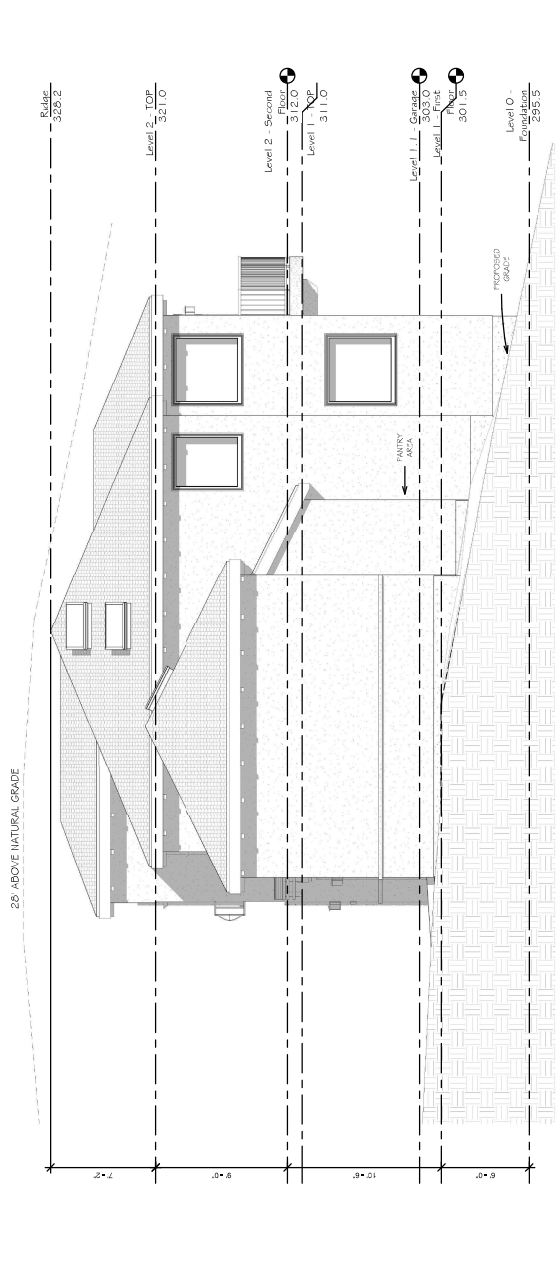
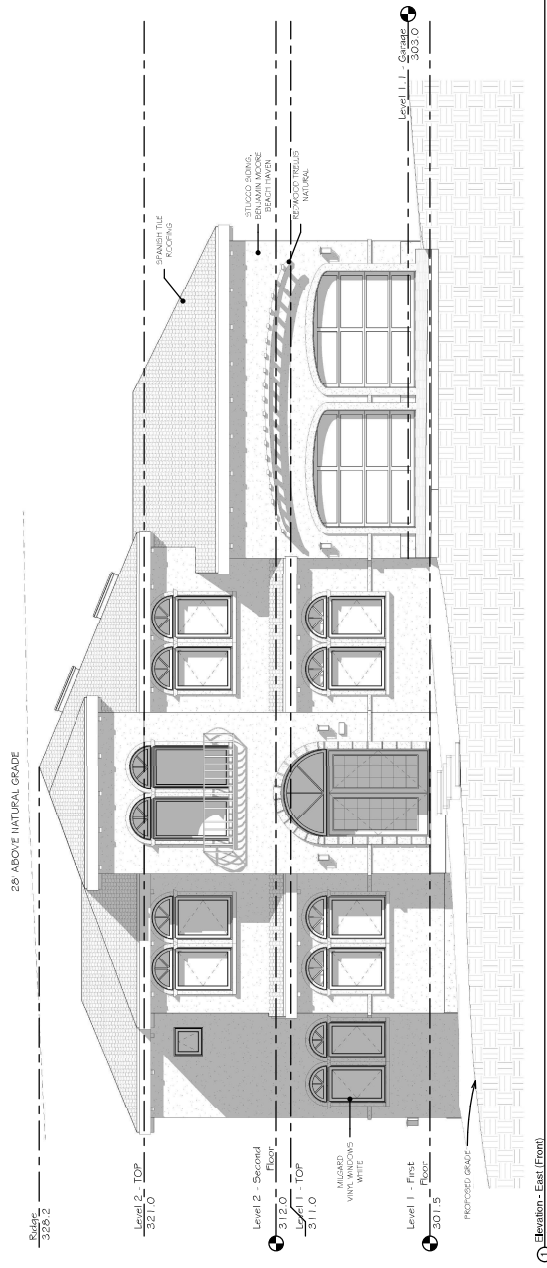
DATE: 09/21/19
SCALE: 1/4" = 1'-0"
DRAWN: GABH
JOB: 21016
SHEET: 2 OF 6

A201
SHEETS




Santa Barbara Dark Sky is a traditional, craftsmanmission style collection from Maxer Lighting in Sierra finish with Mocha glass. Designed to meet the requirements of Dark Sky, these fixtures preserve and protect the nighttime environment and the heritage of dark skies through quality outdoor lighting.

Specifications				
Dimensions				
Product Depth (in.)	10.88	Product Height (in.)	22.63	
Product Length (in.)	10.88	Product Width (in.)	3.15	
Details				
Exterior Lighting Product Type	Outdoor Lanterns	Fixture Color/Finish	Sierra	
Fixture Material	Aluminum	Glass/Lens Type	Water-glass	
Included	Hardware Included	Light Bulb Type Included	No Bulbs Included	
Maximum Bulb Wattage	100 W	Maximum Wattage (watts)	100	
Number of Bulbs Required	1	Outdoor Lighting Features	Weather-Resistant	
Light Bulb Shape Code	A19			
Power Type	Hardwired			
Product Weight (lb.)	6.00lb			
Style	Mission, Classic			




REVISIONS



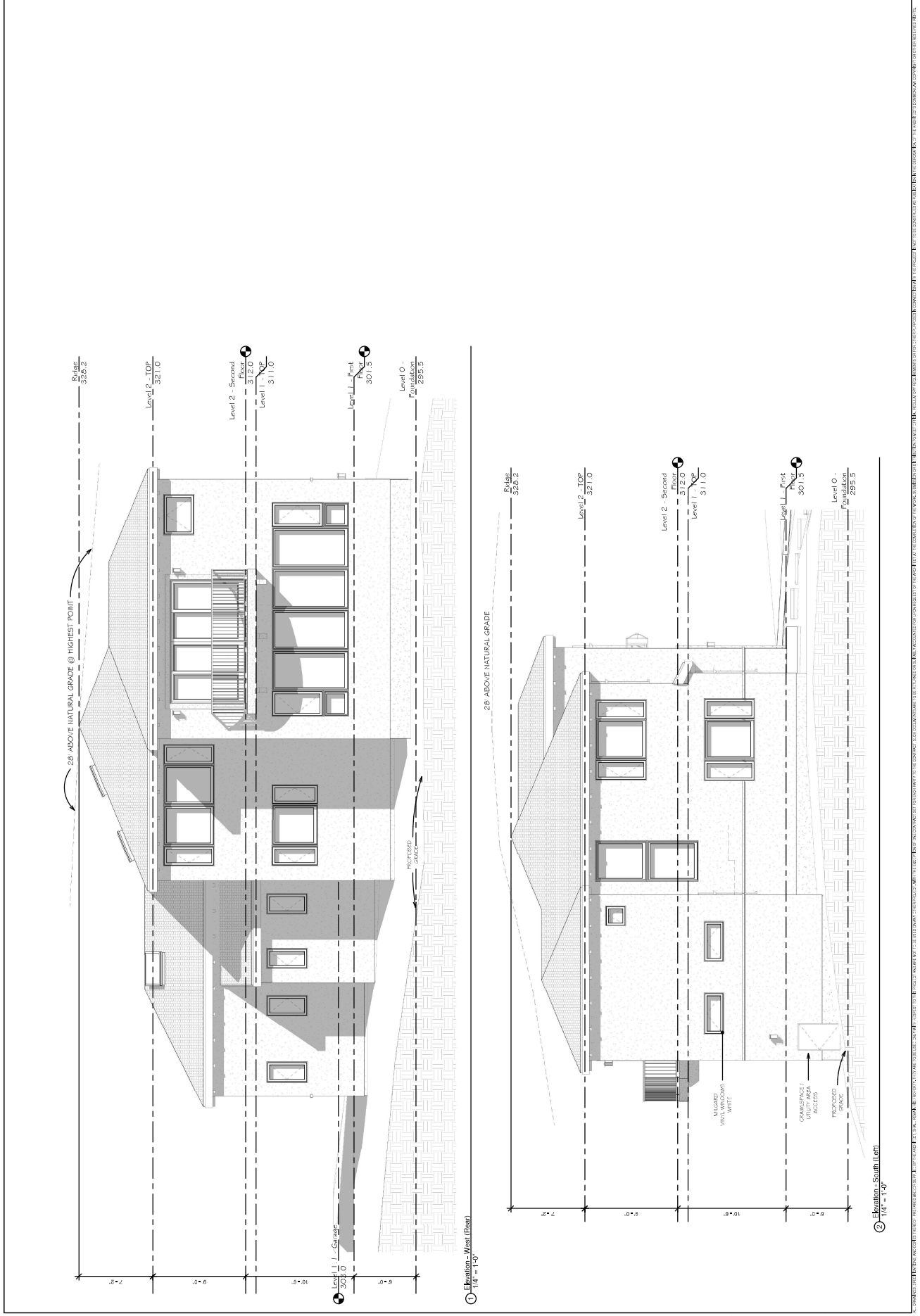
Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 729-7615
 edwardclovearch@gmail.com

New Residence for
 The Zheng Family
 El Granada Blvd
 El Granada, CA

Elevations - West #
 South



DATE: 09/21/19
 SCALE: 1/4" = 1'-0"
 DRAWN: GHM
 JOB: 218161G
 SHEET: A202



January 16, 2020

Edward C. Love
Architect
720 Mill Street
Half Moon Bay, CA 94019

Dear Mr. Love:

SUBJECT: Coastside Design Review Continuance
0 El Granada Boulevard, El Granada
(located between 631 and 647 El Granada Boulevard)
APN 047-151-120; County File No. PLN 2019-00162

At the November 14, 2019 meeting, the San Mateo County Coastside Design Review Committee (CDRC) considered your application for a Design Review Permit to allow construction of a new 2,281 sq. ft. single-family residence, plus an attached two-car 481 sq. ft. garage, proposed on an existing 5,230 sq. ft. vacant legal parcel (legality confirmed via Certificate of Compliance: PLN2016-00031). No significant tree removal and only minor grading is proposed. This project qualifies for a Coastal Development Permit Exemption and is not appealable to the California Coastal Commission.

The CDRC was unable to make the findings for a design review approval based on certain design deficiencies. In order to resolve these deficiencies in the project's design, a more thorough review of the Local Coastal Program and "Standards for Design for One-Family and Two-Family Residential Development in the Midcoast" manual is required. As such, requirements from the CDRC for further project redesign are as follows:

1. Recommendations Discussed Include:

- a. Redesign the house with massing similar to the adjacent house on the downhill side.
- b. Lower the footprint/grade of the garage and the house.
- c. Lower the roofline of the garage.
- d. Step the house down the hill in the direction of the natural grade. Reduce the size of the crawl space under the house.
- e. Redesign the dormer over the entry to reduce the roof height and inner volume.



- f. Provide the specific model and manufacturer's cutsheet of the garage door.
- g. Either open the furred walls at the front entry or add their area to the floor area ratio (FAR).
- h. Update the Civil sheets to be consistent with the floor plan and the landscape plan.

As such, you were presented with the following available options at the end of the CDRC's deliberation of the project: (1) request for a decision from the CDRC on the plans presented or (2) request that the project be considered at the next meeting to provide you with ample time to consider and incorporate the elements recommended for project redesign. You chose the second option, and the CDRC directed staff to schedule your project for consideration at a later date.

Please contact Olivia Boo, Project Planner, at 650/363-1818 or oboo@smcgov.org, if you have any questions.

To provide feedback, please visit the Department's Customer Survey at the following link: <http://planning.smcgov.org/survey>.

Sincerely,



Ruemel Panglao
Design Review Officer

DPA:OB:pac - OSBEE0018_WPN.DOCX

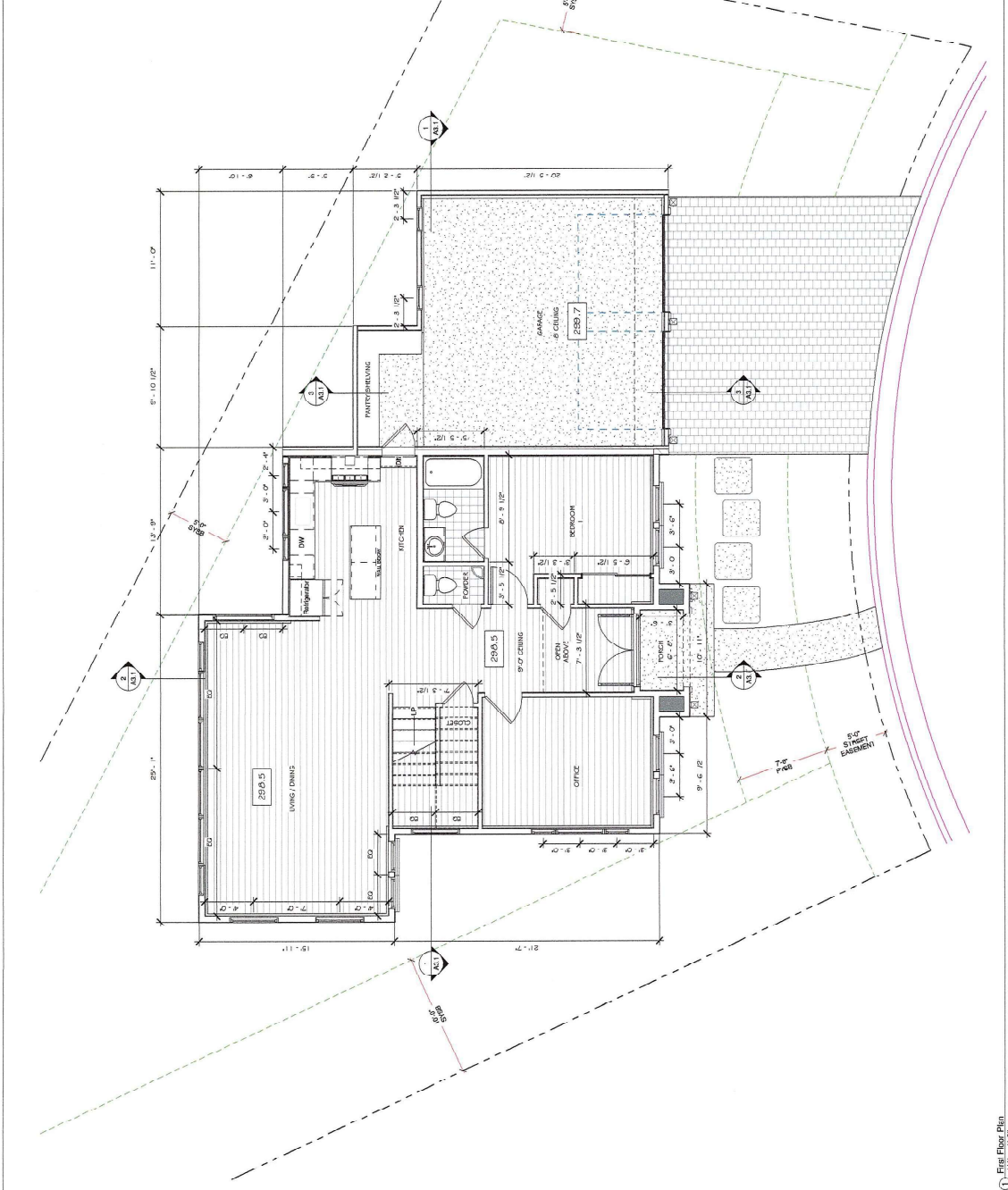
cc: Wei Zheng, Owner
Bruce Chan, Member Landscape Architect
Katie Kostiuik, Member Architect
Chris Johnson, El Granada Community Representative
Jeremiah Armstrong, Interested Member of the Public
Sharon Valdez, Interested Member of the Public
Greg Furmanek, Interested Member of the Public
Karen Allanson, Interested Member of the Public
Kayoko Barbour, Interested Member of the Public
Dan Letters, Interested Member of the Public





COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D

① First Floor Plan
1/4" = 1'-0"



UNLESS SPECIFICALLY NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE UNLESS SPECIFICALLY NOTED OTHERWISE. THE INFORMATION CONTAINED HEREIN IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE AN OFFER OF ANY FINANCIAL PRODUCT OR SERVICE. THE INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE USED AS A SUBSTITUTE FOR PROFESSIONAL ADVICE OR AS A BASIS FOR INVESTMENT DECISIONS. THE INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE USED AS A SUBSTITUTE FOR PROFESSIONAL ADVICE OR AS A BASIS FOR INVESTMENT DECISIONS.

REVISIONS	 <p>EDWARD C. LOVE ARCHITECT EDWARD@EDLOVEARCHITECT.COM 720 MILL STREET HAIF MOON BAY, CA 94019 (415) 726-7212</p>	<p>New Residence for The Zheng Family El Granada Blvd El Granada, CA</p>	<p>First Floor Plan</p>	 <p>DATE: 12/23/19 SCALE: 1/4" = 1'-0" DRAWN: GNH JOB: Project Name</p>	<p>SHEET: A1.1 OF SHEETS</p>
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REVISIONS

DATE

SCALE

DRAWN

CHECK

PROJECT

DATE

SCALE

DRAWN

CHECK

PROJECT

DATE

SCALE

DRAWN

CHECK

PROJECT

DATE

SCALE

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PROJECT

DATE

SCALE

DRAWN

Edward C. Love
 Architect
 1720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 726-7615
 edward@edclove.com

The Zheng Family
 El Granada Blvd
 El Granada, CA

Elevations - East & North

DATE: 12/03/19
 SCALE: 1/4" = 1'-0"
 DRAWN: DMH
 CHECK: Project Name
 SHEET: **A2.1**
 OF 8 SHEETS

REVISIONS

28' ABOVE NATURAL GRADE

ORIGINAL ROOF LINE

SPANISH TILE ROOFING

STYLOID SLINGS WITH WOOD BRANCH HATCH

DARK SLV. SBT

W - Level 1, 1 - Garage 299.7

W - Level 2 - TOP 317.5

W - Level 2 - Second Floor 308.5

W - Level 1 - First Floor 298.5

28' ABOVE NATURAL GRADE

ORIGINAL ROOF LINE

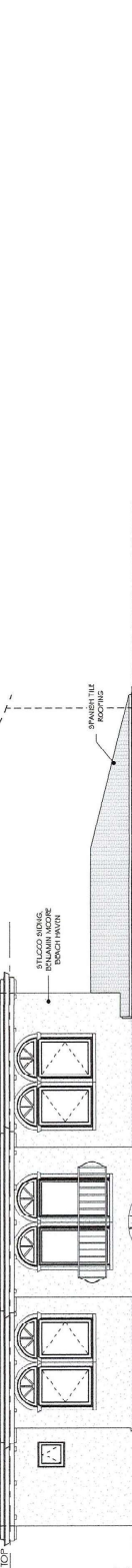
W - Level 2 - TOP 317.5

W - Level 2 - Second Floor 308.5

W - Level 1 - First Floor 298.5



① Elevation - East (Front)
 1/4" = 1'-0"



② Elevation - North (Right)
 1/4" = 1'-0"

--- SHOWS PREVIOUS DESIGN FOR THE

REVISIONS



Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 724-7214
edward@eclovearch.com

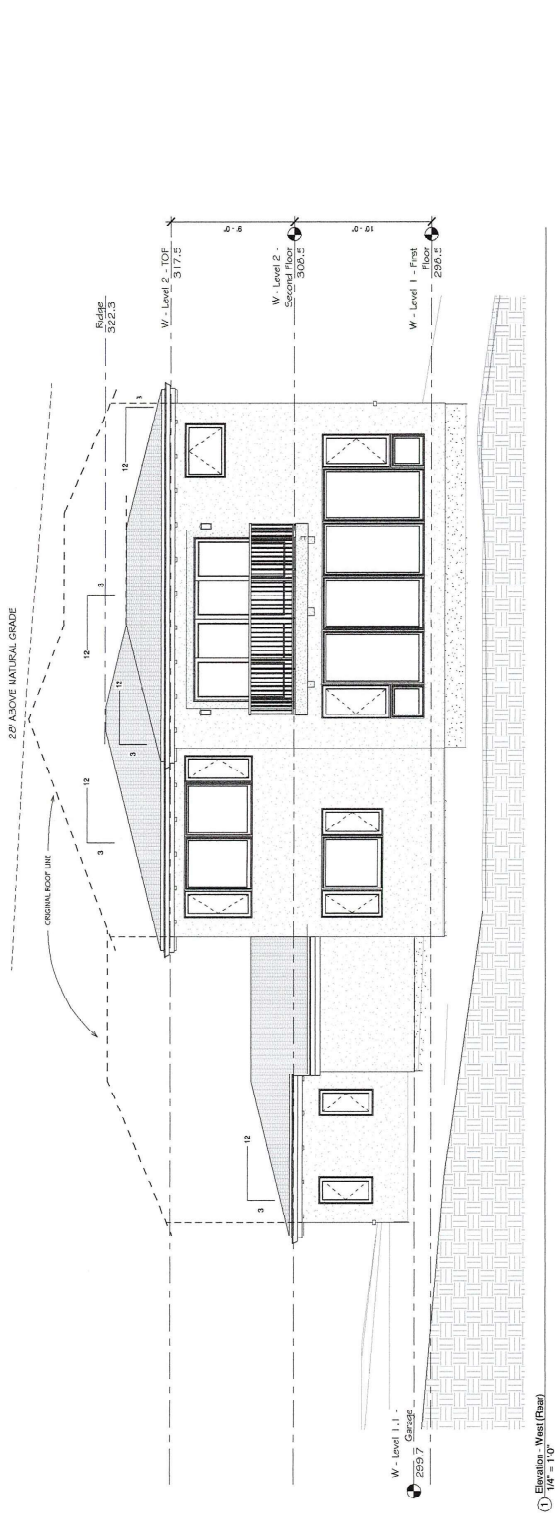
New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Elevations - West &
South

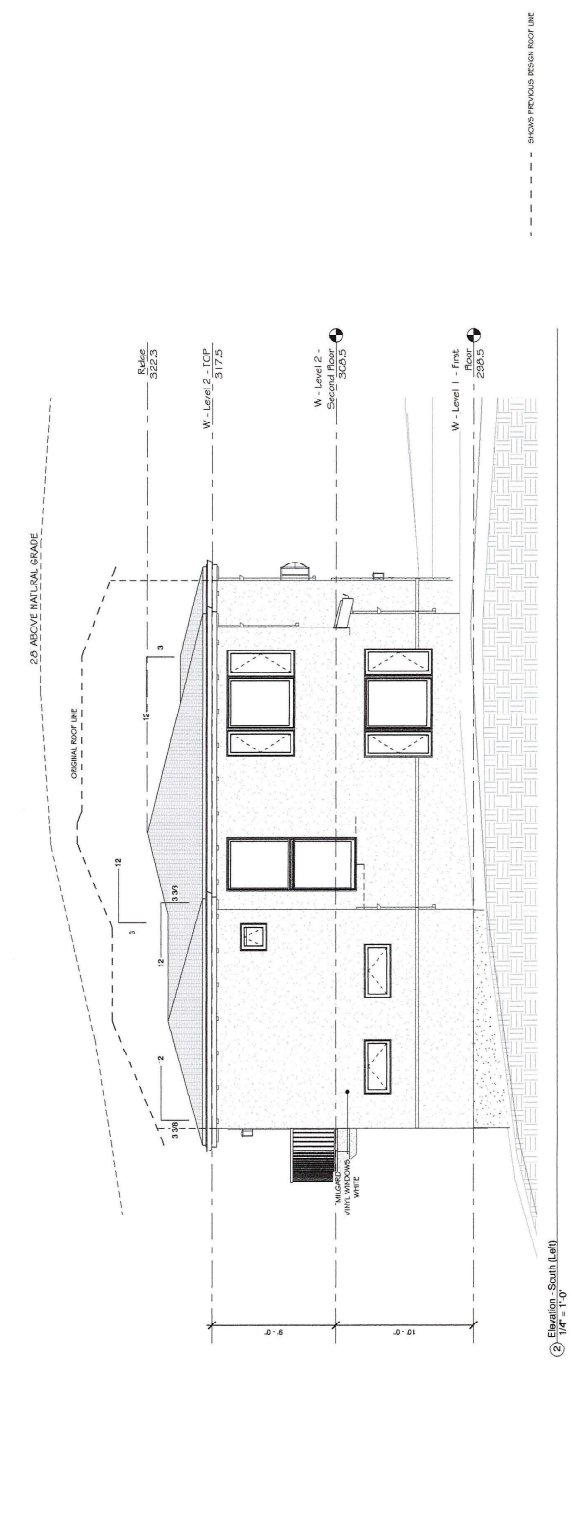


DATE: 12/03/19
SCALE: 1/4" = 1'-0"
DRAWN: DMH
JOB: Project Name

SHEET:
A2.2
OF
SHEETS



① Elevation - West (Rear)
1/4" = 1'-0"



② Elevation - South (Left)
1/4" = 1'-0"

--- SUCCEEDS PREVIOUS PERIODS ARCHITECTURE

NO.	DESCRIPTION	DATE

REVISIONS



Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(415) 724-7211
edward@edwardclove.com

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Sections



DATE: 12/03/19
SCALE: 1/4" = 1'-0"
DRAWN: CHH
JOB: Project Name

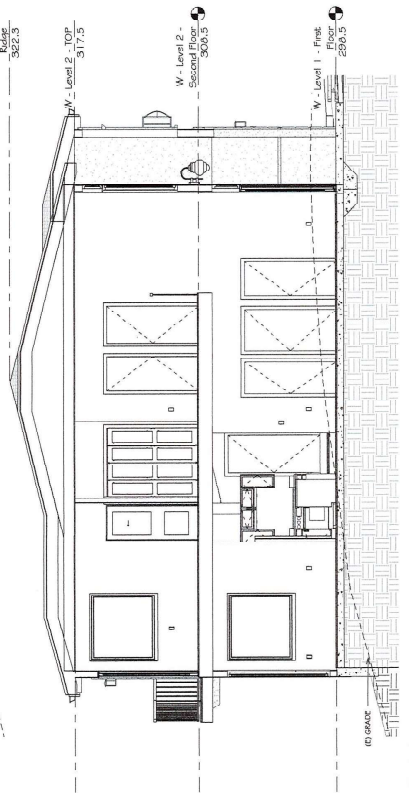
SHEET
A3.1
OF
SHEETS

28' ABOVE NATURAL GRADE

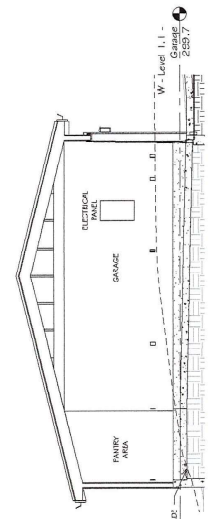


1 DD - Section 1
1/4" = 1'-0"

28' ABOVE NATURAL GRADE



2 DD - Section 2
1/4" = 1'-0"



3 DD - Change Section
1/4" = 1'-0"

THESE DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS REPRESENT THE PROJECT AS DEVELOPED BY ARCHITECT AND OWNER. THEY ARE TO BE USED ONLY FOR THE PROJECT AND NOT FOR ANY OTHER PURPOSE. ANY REVISIONS TO THESE DRAWINGS SHALL BE INDICATED BY A REVISION SYMBOL AND A DATE. THE ARCHITECT SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED IN THESE DRAWINGS. THE ARCHITECT SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED IN THESE DRAWINGS.

February 26, 2020

Ed Love
Architect
720 Mill Street
Half Moon Bay, CA 94019

Dear Mr. Love:

SUBJECT: Coastside Design Review Continuance
0 El Granada Boulevard, El Granada
APN 047-151-120; County File No. PLN 2019-00162

At its meeting of February 13, 2020, the San Mateo County Coastside Design Review Committee (CDRC) considered your application for a Design Review Permit to allow construction of a new two-story 2,772 sq. ft. single-family residence, plus a 481 sq. ft. attached two-car garage, on a 5,230 sq. ft. legal parcel (legality confirmed PLN 2016-00031). No significant tree removal and a grading permit for 330 cubic yards is proposed. The project qualifies for a Coastal Development Exemption and is not appealable to the California Coastal Commission.

The CDRC was unable to make the findings for a design review approval based on certain design deficiencies. In order to resolve these deficiencies in the project's design, a more thorough review of the Local Coastal Program and "Standards for Design for One-family and Two-family residential development in the Midcoast" manual is required. As such, requirements from the CDRC for further project redesign are as follows:

1. Recommendations Discussed Include:
 - a. Make the shed roofs that flank each side of the front entry larger to set the second floor back.
 - b. Change the entry expression to be a single-story expression.
 - c. Shift the master bedroom suite away from the south property line in order to introduce the first-floor roof and set the second-floor back from the first-floor.
 - d. Remove the story poles within one week.



2. Suggestion:

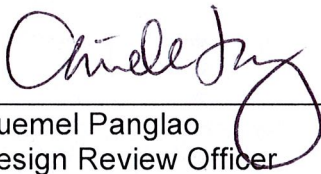
- a. Step down the master suite/living room/kitchen area to visually break up the roofline and follow the natural grade.

As such, you were presented with the following available options at the end of the CDRC's deliberation of the project: (i) request for a decision from the CDRC on the plans presented or (ii) request that the project be considered at a future meeting to provide you with ample time to consider and incorporate the elements recommended for project redesign. You chose the second option, and the CDRC directed staff to schedule your project for consideration at a later date.

Please contact Olivia Boo, Project Planner, at 650/363-1818 or oboo@smcgov.org, if you have any questions.

To provide feedback, please visit the Department's Customer Survey at the following link: <http://planning.smcgov.org/survey>.

Sincerely,



Ruemel Panglao
Design Review Officer

RSP:OSB:cmc – OSBEE0108_WCN.DOCX

cc: Wei Zheng, Owners
Bruce Chan, Member Landscape Architect
Chris Johnson, Member
Kayleen Kostuik, Member Architect
Kathleen Dailey, Interested Member of the Public
Sharon Valdez, Interested Member of the Public
Greg Formanek, Interested Member of the Public
Dan Letters, Interested Member of the Public
Jeremiah Armstrong, Interested Member of the Public
Barbara Norman, Interested Member of the Public
Kayoko Barbour, Interested Member of the Public
Aaron Halon, Interested Member of the Public
Aidan Brewster, Interested Member of the Public




COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

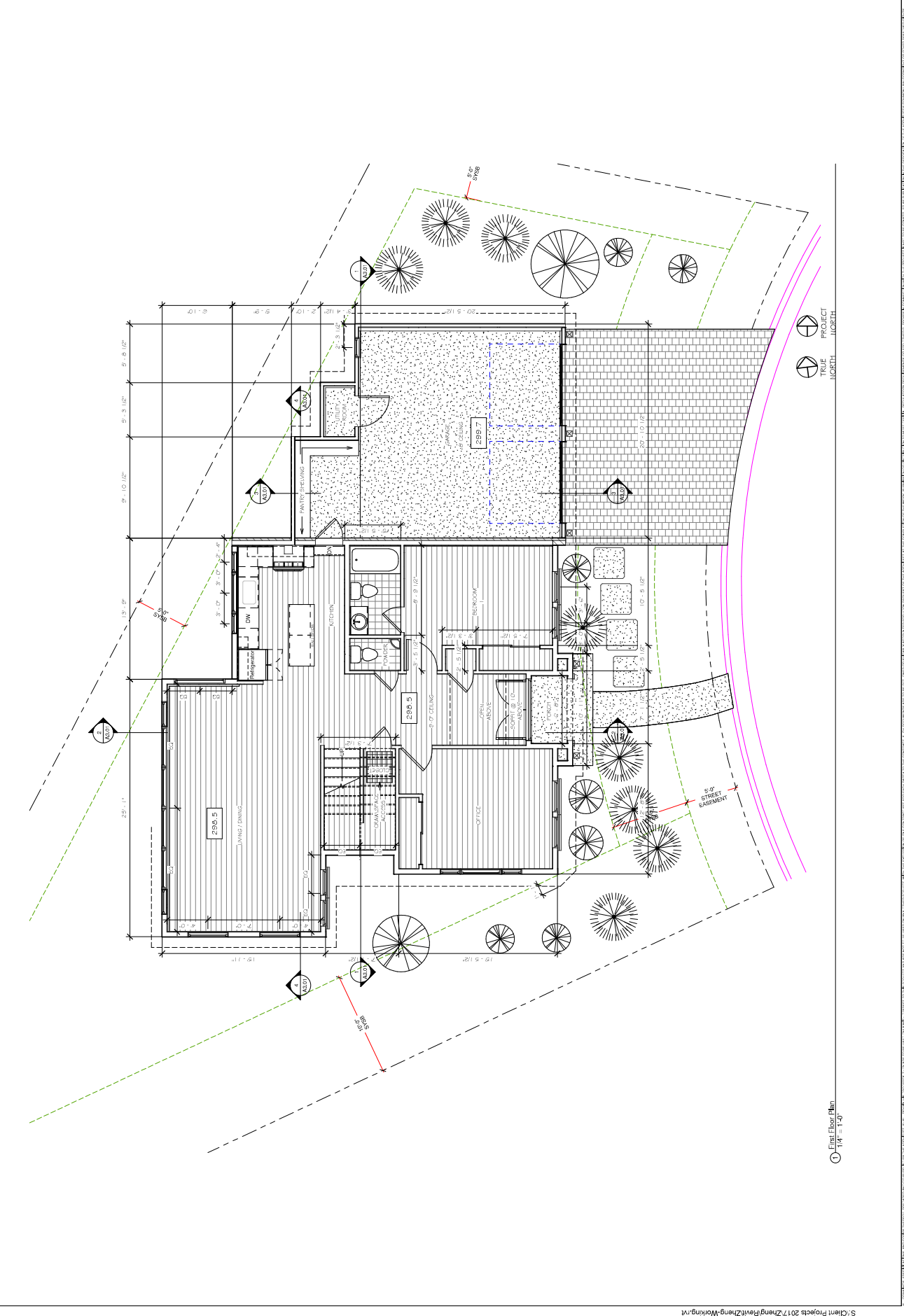

 DATE: 03/02/20
 SCALE: 1/4" = 1'-0"
 DRAWN: GHM
 JOB: ZHENG
 SHEET: A1.01
 OF SHEETS: 07

First Floor Plan

New Residence for
 The Zheng Family
 El Granada Blvd
 El Granada, CA
 Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 728-7615
 edwardlovearch@gmail.com


 EDWARD C. LOVE ARCHITECT

REVISIONS



1 First Floor Plan
 1/4" = 1'-0"

No. C20277
 Date: 10/21/11
 PROJECT: GHHT
 DRAWN: GHHT
 JOB: ZHENG
 SHEET: 21/21

AI.02
 SHEETS: 02

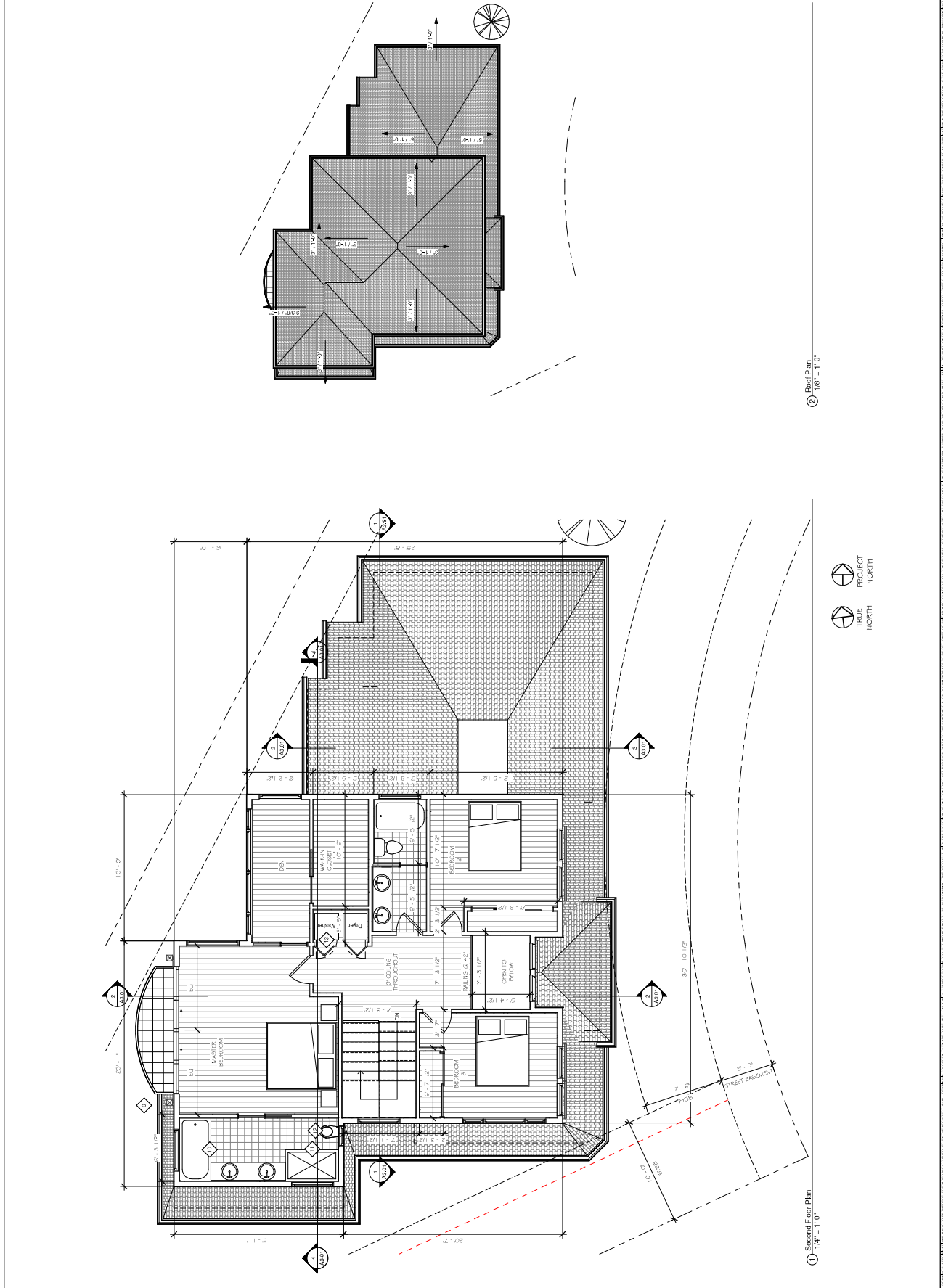
Second Floor Plan & Roof
 Plan

New Residence for
 The Zheng Family
 El Granada Blvd
 El Granada, CA

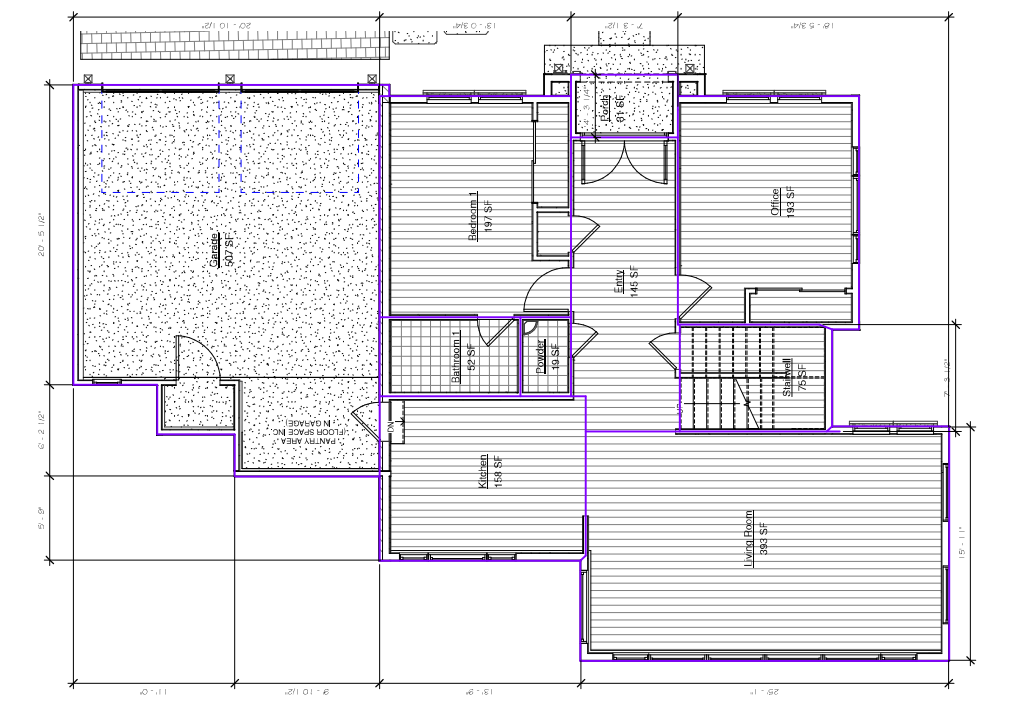
Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 725-7615
 edwardlovearch@gmail.com



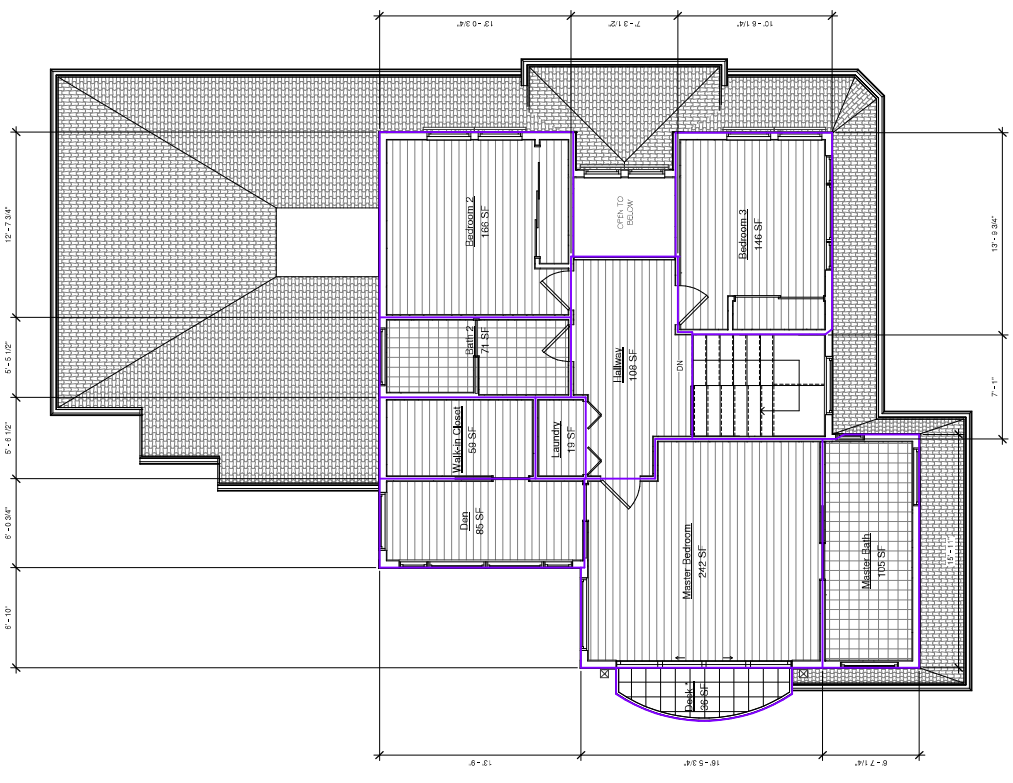
REVISIONS



① DD - Level 1 - First Floor
1/4" = 1'-0"



② DD - Level 2 - Second Floor
1/4" = 1'-0"



Area Schedule (Rentable)		
Name	Area	
W. Level 1 - First Floor		
Bedroom 1	187 SF	
Entry	45 SF	
Kitchen	162 SF	
Living Room	215 SF	
Dining	138 SF	
Garage	377 SF	
Stairwell	75 SF	
W. Level 2 - Second Floor		
Bedroom 2	168 SF	
Bedroom 3	146 SF	
Hallway	108 SF	
Stair	45 SF	
Walk-in Closet	69 SF	
Laundry Room	13 SF	
Master Bedroom	242 SF	
Master Closet	69 SF	
* COUNTED IN LOT COVERAGE ONLY		
FIRST FLOOR AREA	1,770	
SECOND FLOOR AREA	1,001	
TOTAL FLOOR AREA	2,771	

Floor Area Plan

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardlovearch@gmail.com



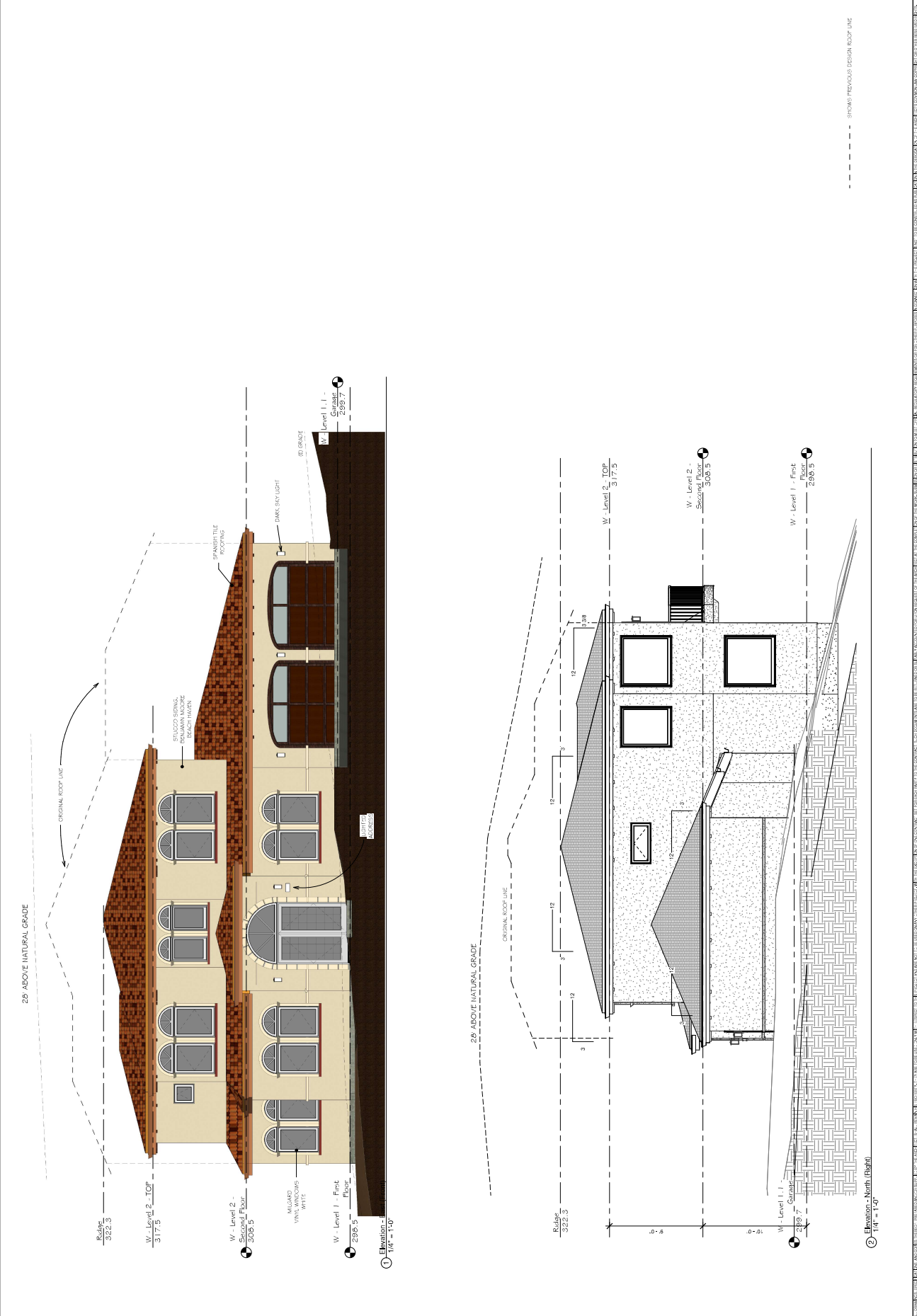
EDWARD C. LOVE ARCHITECT
No. C28077
Exp. 10/31/17
DATE: 03/02/20
SCALE: 1/4" = 1'-0"
DRAWN: GHM
JOB: 21E1G
SHEET: AI.03
SHEETS

REVISIONS

No.	Description	Date



REVISIONS



EDWARD C. LOVE ARCHITECT
 No. C28077
 Exp. 03/31/21
 STATE OF CALIFORNIA

DATE: 03/02/2020
 SCALE: 1/4" = 1'-0"
 DRAWN: GHM
 JOB: ZHEHNG

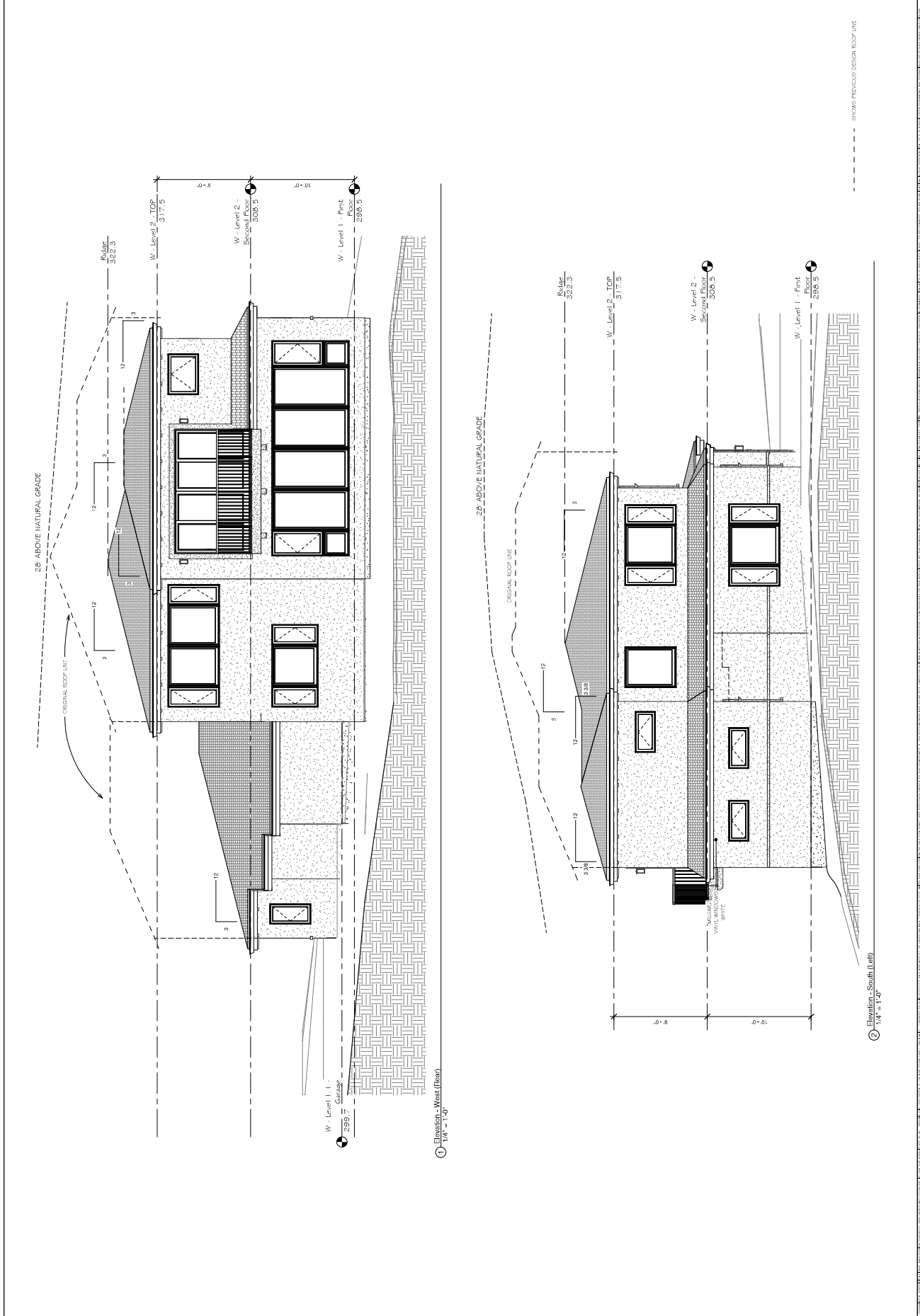
SHEET: **A2.02**
 OF SHEETS

Elevations - West & South
 South

New Residence for
 The Zheng Family
 El Granada Blvd
 El Granada, CA

Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 728-7615
 edward@lovearchitect.com

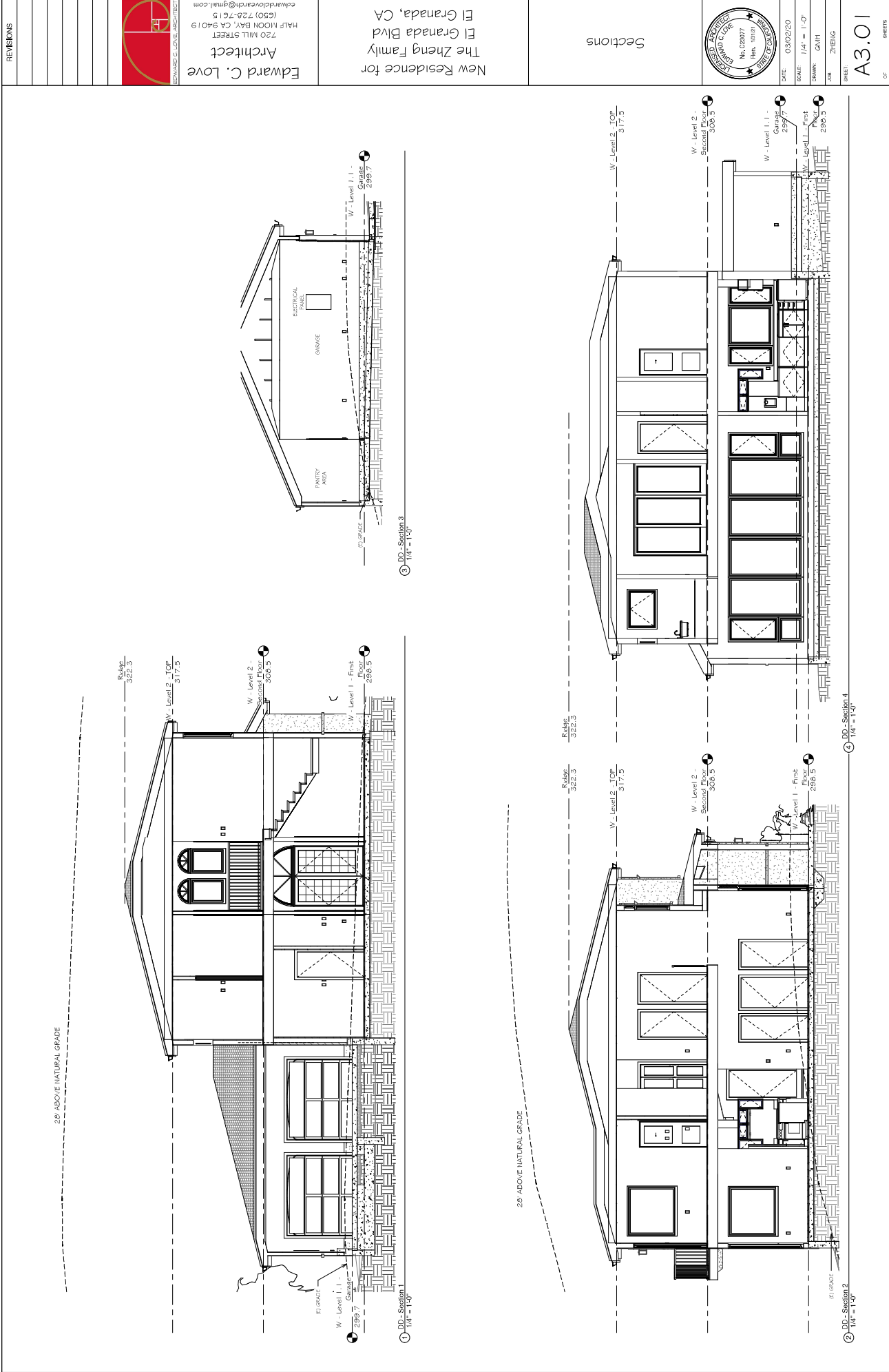
REVISIONS



--- SHOWS PREVIOUS DESIGN ROOF LINE

② Elevation - South (Left)
 1/4" = 1'-0"

① Elevation - West (Rear)
 1/4" = 1'-0"



REVISIONS



Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 728-7615
 edwardlovearch@gmail.com

New Residence for
 The Zheng Family
 El Granada Blvd
 El Granada, CA

Sections

DATE: 03/02/20
 SCALE: 1/4" = 1'-0"
 DRAWN: GHH
 JOB: 21E16

SHEET
A3.01
 OF
 SHEETS



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT F

May 11, 2020

Edward C. Love, Architect
720 Mills Street
Half Moon Bay, CA 94019

Dear Mr. Love:

SUBJECT: Coastside Design Review Permit and Staff Level Grading Permit
0 El Granada Boulevard, El Granada
APN 047-151-120; County File No PLN 2019-00162

Staff has reviewed your application for a staff-level grading permit to allow 330 cubic yards of cut and no fill, and no significant tree removal, in association with the construction of a new 2,725 sq. ft. single-family residence with an attached 490 sq. ft. two-car garage on a undeveloped 5,230 sq. ft. parcel (legality confirmed via Certificate of Compliance: PLN 2016-00031). This project qualifies for a Coastal Development Permit Exception and is not appealable to the California Coastal Commission.

The project is located within the R-1/S-17/DR/CD (Single-Family Residential/ 5,000 sq. ft. minimum parcel size/Design Review/Coastal Development) Zoning District. Staff has reviewed the project for compliance with the development standards of the S-17 regulations and found that the project complies.

The grading permit application has been reviewed and recommended conditional approval by the Department of Public Works, Geotechnical Services, Building Inspection Section and the Coastside Fire Protection District.

At its meetings on November 14, 2019 and February 13, 2020, the project was considered by the Coastside Design Review Committee. At both meetings, the applicant requested a continuance to a future meeting date to revise the design based on feedback from the committee regarding compliance with the applicable design review standards.

At its meeting of April 9, 2020, the Coastside Design Review Committee (CDRC) considered your revised application for design review. The CDRC recommended approval of your project, based on and subject to the findings and conditions provided in this letter.



Based on the plans, application forms, and accompanying materials submitted, the project is approved subject to the following recommended findings and conditions of approval.

FINDINGS

Staff found that:

For the Environmental Review, Find:

1. This project is exempt from environmental review pursuant to the California Environmental Quality Act (CEQA), Section 15303, Class 3(a), relating to the construction of one single-family residence in an urban, residential zone.

For the Coastal Development Exemption, Find:

2. The proposed residence conforms to Section 6328.5(e) of the County Zoning Regulations and is located within the area designated as a Single-Family Residence Categorical Exclusion Area.

The Coastsides Design Review Committee, Find:

3. The project has been reviewed under and found to be in compliance with the Design Review Standards for One-Family and Two-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Regulations, specifically discussed ed as follows.
 - a. Section 6565.20 (C) SITE PLANNING AND STRUCTURE PLACEMENT; 1. Integrate Structures with the Natural Setting; b. Grading; (3): Despite its location on a hillside, design limits grading to 330 cubic yards for the footprint of the garage and its immediate vicinity.
 - b. Section 6565.20 (D) ELEMENTS OF DESIGN; 2. Architectural Style and Features; d. Garages; (1): Use of a decorative garage door is consistent with the style of the house, avoids making the garage the dominant feature as seen from the street, and complements the articulation of the front elevation facade.
 - c. Section 6565.20 (D) ELEMENTS OF DESIGN; 3. Roof Design; a. Massing and Design of Roof Forms; (1): Secondary roof forms and single-story expression in the front elevation serve to reduce the house's apparent mass and scale, provide visual interest, and are compatible with the slope and material of the primary roof form.

For the Grading Permit, Find:

4. a. **That the granting of the permit will not have a significant adverse effect on the environment.**

The proposed single-family residence is in conformance with the General Plan and Zoning Designation for the property. The proposed grading supports the construction of the residence and allows for the house to have a lower ridge height and set into the slope of the property, thereby reducing bulk and mass of the structure. The submitted biologist report noted that no special-status wildlife species are documented nor are any such species likely to occur within the project area. To ensure no potential adverse impacts to special-status species occurs, a condition of approval is recommended to require pre-construction surveys for nesting birds for shrub or tree removal activities and that these vegetation removal activities occur during the non-nesting season.

Further, this project has been reviewed and recommended conditional approval by the Department of Public Works, Geotechnical staff, Building Inspection Section and the Coastside Fire Protection District. With implementation of the proposed Grading Plan prepared by a licensed civil engineer and associated conditions of approval, regarding protection of special-status species will ensure the project will not have a significant adverse effect on the environment.

- b. **The project conforms to the criteria of Chapter 5, Division VII, San Mateo County Ordinance Code, including the standards referenced in Section 9296.**

Planning staff, the Geotechnical Section, the Building Inspection Section, Coastside Fire Protection District) and the Department of Public Works have reviewed the project and have determined its conformance to the criteria of Chapter 5, Division II, San Mateo County Ordinance Code, including the standards referenced in section 9296 and the San Mateo County General Plan, including timing of grading activity, implementation of erosion and sediment control measures, and dust control measures.

- c. **That the project is consistent with the General Plan.**

The subject site has a General Plan land use designation of Medium Density Residential Urban. The proposed single-family residence is in-fill development which is consistent with the allowed density and use of the designation. The project also conforms with the Design Review standards for the Midcoast area and with the development standards of the S-17 Zoning District which aids in the orderly and harmonious development of the parcel as it relates to

the surrounding neighborhood. Therefore, the project as proposed and conditioned is consistent with the San Mateo County General Plan.

CONDITIONS OF APPROVAL

Current Planning Section

1. The project shall be constructed in compliance with the plans approved by the Community Development Director and as reviewed by the Coastside Design Review Committee on April 9, 2020. Any changes or revisions to the approved plans shall be submitted to the Community Development Director for review and approval prior to implementation. Minor adjustments to project design may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Alternatively, the Design Review Officer may refer consideration of the revisions to the Coastside Design Review Committee, with applicable fees to be paid.
2. The Grading Permit and Design Review and final approval shall be valid for five (5) years from the date of approval, in which time a Building Permit shall be issued and a completed inspection (to the satisfaction of the Building Inspector) shall have occurred within 180 days of its issuance. The design review approval may be extended by a one (1)-year increment with submittal of an application for permit extension and payment of applicable extension fees sixty (60) days prior to the expiration date.
3. The applicant shall include a copy of this letter on the top pages of the building plans.
4. The applicant shall provide "finished floor elevation verification" to certify that the structure is actually constructed at the height shown on the submitted plans. The applicant shall have a licensed land surveyor or engineer establish a baseline elevation datum point in the vicinity of the construction site.
 - a. The applicant shall maintain the datum point so that it will not be disturbed by the proposed construction activities until final approval of the building permit.
 - b. This datum point and its elevation shall be shown on the submitted site plan. This datum point shall be used during construction to verify the elevation of the finished floors relative to the existing natural or to the grade of the site (finished grade).
 - c. Prior to Planning approval of the building permit application, the applicant shall also have the licensed land surveyor or engineer indicate on the construction plans: (1) the natural grade elevations at the significant corners

- (at least four) of the footprint of the proposed structure on the submitted site plan, and (2) the elevations of proposed finished grades.
- d. In addition, (1) the natural grade elevations at the significant corners of the proposed structure, (2) the finished floor elevations, (3) the topmost elevation of the roof, and (4) the garage slab elevation must be shown on the plan, elevations, and cross-section (if one is provided).
 - e. Once the building is under construction, prior to the below floor framing inspection or the pouring of the concrete slab (as the case may be) for the lowest floor(s), the applicant shall provide to the Building Inspection Section a letter from the licensed land surveyor or engineer certifying that the lowest floor height, as constructed, is equal to the elevation specified for that floor in the approved plans. Similarly, certifications on the garage slab and the topmost elevation of the roof are required.
 - f. If the actual floor height, garage slab, or roof height, as constructed, is different than the elevation specified in the plans, then the applicant shall cease all construction and no additional inspections shall be approved until a revised set of plans is submitted to and subsequently approved by both the Building Official and the Community Development Director.
5. The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:
- a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.
 - b. Protection of adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
 - c. Performing clearing and earth-moving activities only during dry weather.
 - d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.
 - e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.
 - f. Control and prevention of the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals,

- wash water or sediments, and non-stormwater discharges, to storm drains and watercourses.
- g. Use of sediment controls or filtration to remove sediment when dewatering the site and obtain all necessary permits.
 - h. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
 - i. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.
 - j. Limiting construction access routes and stabilization of designated access points.
 - k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.
 - l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.
 - m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.
 - n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.
6. All new power and telephone utility lines from the street or nearest existing utility pole to the main dwelling and/or any other structure on the property shall be placed underground.
 7. The applicant shall apply for a building permit and shall adhere to all requirements from the Building Inspection Section, the Drainage Section, the Geotechnical Section, the Coastside Fire Protection District, the Granada Community Services District, and the Coastside County Water District.
 8. No site disturbance shall occur, including any grading or vegetation removal, until a building permit has been issued.

9. This permit does not allow for the removal of any trees. Removal of any tree with a diameter equal to, or greater than, 12 inches as measured 4.5 feet above the ground shall require a separate tree removal permit.
10. To reduce the impact of construction activities on neighboring properties, comply with the following:
 - a. All debris shall be contained on-site; a dumpster or trash bin shall be provided on-site during construction to prevent debris from blowing onto adjacent properties. The applicant shall monitor the site to ensure that trash is picked up and appropriately disposed of daily.
 - b. The applicant shall remove all construction equipment from the site upon completion of the use and/or need of each piece of equipment which shall include but not be limited to tractors, back hoes, cement mixers, etc.
 - c. The applicant shall ensure that no construction-related vehicles shall impede through traffic along the right-of-way on El Granada Boulevard. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on El Granada Boulevard. There shall be no storage of construction vehicles in the public right-of-way.
11. The exterior color samples submitted to the CDRC are approved. Color verification shall occur in the field after the applicant has applied the approved materials and colors but before a final inspection has been scheduled.
12. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving and Christmas (San Mateo Ordinance Code Section 4.88.360).
13. Installation of the approved landscape plan is required prior to final inspection.
14. At the building permit application stage, the project shall demonstrate compliance with the Water Efficient Landscape Ordinance (WELO) and provide the required forms. WELO applies to new landscape projects equal to or greater than 500 sq. ft. and rehabilitated landscape projects equal to or greater than 2,500 square feet. A prescriptive checklist is available as a compliance option for projects under 2,500 square feet. The Performance approach is applicable to new and/or rehabilitated landscape projects over 2,500 square feet.
15. The applicant shall implement the following dust control measures during grading and construction activities:

- a. Water all active construction and grading areas at least twice daily.
- b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at the project site.
- d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public street/roads.
- e. Enclose, cover, water twice daily or apply (non -toxic) soil binders to exposed stockpiles (dirt, sand, etc.)

Grading Conditions

16. No grading shall be allowed during the winter season (October 1 to April 30) to avoid potential soil erosion. The applicant shall submit a letter to the Current Planning Section, a minimum of two (2) weeks prior to commencement of grading, stating the date when grading will begin. A Winter Grading Exception may be granted for grading during the winter season at the discretion of the Community Development Director.
17. The applicant shall include an erosion and sediment control plan to comply with the County's Erosion Control Guidelines on the plans submitted for the building permit. This plan shall identify the type and location of erosion control measures to be installed upon the commencement of construction in order to maintain the stability of the site and prevent erosion and sedimentation off-site.
18. No grading activities shall commence until the property owner has been issued a grading permit (issued as the "hard card" with all necessary information filled out and signatures obtained) by the Current Planning Section.
19. Prior to any land disturbance and throughout the grading operation, the property owner shall implement the erosion control plan, as prepared and signed by the engineer of record and approved by the decision maker. Revisions to the approved erosion control plan shall be prepared and signed by the engineer and submitted to the Community Development Director for review and approval.
20. Prior to issuance of the grading permit "hard card," the property owner shall submit a schedule of all grading operations to the Current Planning Section, subject to review and approval by the Current Planning Section. The submitted schedule shall include a schedule for winterizing the site. If the schedule of grading operations calls for the grading to be completed in one grading season, then the winterizing plan shall be considered a contingent plan to be implemented if work

falls behind schedule. All submitted schedules shall represent the work in detail and shall project the grading operations through to completion.

21. It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.
22. For the final approval of the grading permit, the property owner shall ensure the performance of the following activities within thirty (30) days of the completion of grading at the project site: (a) The engineer shall submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval/mitigation measures, and the Grading Regulations, to the Department of Public Works and the Planning and Building Department's Geotechnical Engineer, and (b) The geotechnical consultant shall observe and approve all applicable work during construction and sign Section II of the Geotechnical Consultant Approval form, for submittal to the Planning and Building Department's Geotechnical Engineer and the Current Planning Section.
23. An Erosion Control and/or Tree Protection Inspection is required prior to the issuance of a building permit for grading, construction, and demolition purposes, as the project requires tree protection of significant tree(s) [insert grading permit if applicable]. Once all review agencies have approved your Building Permit, you will be notified that an approved job copy of the Erosion Control and/or Tree Protection Plan is ready for pick-up at the Planning counter of the Planning and Building Department. Once the Erosion Control and/or Tree Protection measures have been installed per the approved plans, please contact the Building Inspection Section at 650/363-7311 to schedule a pre-site inspection. A \$144 inspection fee will be assessed to the building permit for the inspection. If the initial Pre-Site Inspection is not approved, an additional inspection fee will be assessed for each required re-inspection until the job site passes the Pre-Site Inspection, or as determined by the Building Inspection Section.
24. Trees or shrubs proposed for removal or trimming should be removed or trimmed during the bird non-nesting season (August 16-February 14).
25. If tree or shrub removal is initiated during the nesting season (February 15 - August 15), a pre-construction nesting bird survey by a qualified biologist is recommended to avoid impacts to both special-status and non-special status bird species.

If active nests are observed, the qualified biologist will determine suitable buffers based upon nest location and bird species. Buffers will be dependent upon

species, next location and project activities, but may range between 25-75 feet for passerine birds and up to 250 feet for raptors.

Building Inspection Section

26. A building permit is required.

Drainage Section

27. An updated Drainage Report prepared and stamped by a registered civil engineer.
28. A final Grading and Drainage Plan prepared and stamped by a registered civil engineer.
29. An updated C3 C6 Checklist (if changes to the amount of impervious area were made during the design phase)

Geotechnical Section

30. The peer review of the soils report will occur at the time of building permit application.

Department of Public Works

31. Prior to the issuance of the building permit or planning permit (for Provision C3 Regulated Projects), the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.
32. Prior to the issuance of the building permit or planning permit (if applicable), the applicant shall submit a driveway "Plan and Profile," to the Department of Public Works, showing the driveway access to the parcel (garage slab) complying with County Standards for driveway slopes (not to exceed 20%) and to County Standards for driveways (at the property line) being the same elevation as the center of the access roadway. When appropriate, as determined by the Department of Public Works, this plan and profile shall be prepared from elevations and alignment shown on the roadway improvement plans. The

driveway plan shall also include and show specific provisions and details for both the existing and the proposed drainage patterns and drainage facilities.

33. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.
34. Prior to the issuance of the Building Permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed building per Ordinance No. 3277.
35. The applicant shall include a driveway curb cut for the proposed project.

Coastside Fire Protection District

36. Smoke Detectors which are hard wired: As per the California Building Code, State Fire Marshal regulations, and Coastside Fire Protection District Ordinance 2016-01, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hardwired, interconnected, and have battery backup. These detectors are required to be placed in each new and recondition sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final. Date of installation must be added to exterior of the smoke alarm and will be checked at final.(Add note to plans)
37. Smoke alarm/detector are to be hardwired, interconnected, or with battery backup. Smoke alarms to be installed per manufactures instruction and NFPA 72. (Add note to plans)
38. Escape or rescue windows shall have a minimum net clear openable area of 5 sq. ft., 5.0 sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor. (CFC 1030). (Add note to plans)
39. Identify rescue windows in each bedroom and verify that they meet all requirements. (Add note to plans)
40. New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. The letters/numerals for permanent address signs shall be 4 inches in

height with a minimum 1/2-inch stroke. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. Where buildings are located remotely to the public roadway, additional signage at the driveway/roadway entrance leading to the building and/or on each individual building shall be required by the Coastside Fire District. This remote signage shall consist of a 6-inch by 18-inch green reflective metal sign with 3-inch reflective Numbers/Letters similar to Hy-Ko 911 or equivalent. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE). (Add note to plans)

41. The building is in a Very High Fire Hazard Severity Zone and will require a Class A roof. (Add note to plans)
42. Vegetation Management (LRA)– The Coastside Fire Protection District Ordinance 2016-01, the 2016 California Fire Code 304.1.2. (Add note to plans)
 - a. A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. This is neither a requirement nor an authorization for the removal of living trees.
 - b. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity.
 - c. Remove that portion of any existing trees, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.
43. Fire Access Roads – Add note to plans: The applicant must have a maintained asphalt surface road for ingress and egress of fire apparatus. The City of Half Moon Bay Department of Public Works, San Mateo County Department of Public Works, the Coastside Fire Protection District Ordinance 2016-01, and the California Fire Code shall set road standards. As per the 2016 CFC, dead-end roads exceeding 150 feet shall be provided with a turnaround in accordance with Coastside Fire District specifications. As per the 2016 CFC, Section Appendix D, road width shall not be less than 20 feet. Fire access roads shall be installed and made serviceable prior to combustibles being placed on the project site and maintained during construction. Approved signs and painted curbs or lines shall be provided and maintained to identify fire access roads and state the prohibition of their obstruction. If the road width does not allow parking on the street (20-foot road) and on-street parking is desired, an additional improved area shall be developed for that use. (Add note to plans)

44. Dead end emergency access exceeding 150 feet shall be provided with width and turnaround provisions meeting California Fire Code appendix D. (Add note to plans)
45. Fire Hydrant: There is a hydrant within the required 500 feet but it is a dry barrel hydrant or non-compliant hydrant. Applicant shall change it to the required (Clow 960) hydrant. As per 2016 CFC, Appendix B the hydrant must produce a minimum fire flow of 500 gallons per minute at 20 pounds per square inch residual pressure for 2 hours. Contact the local water purveyor for water flow details. (Add note to plans)
46. Automatic Fire Sprinkler System: (Fire Sprinkler plans will require a separate permit). As per San Mateo County Building Standards and Coastside Fire Protection District Ordinance Number 2016-01, the applicant is required to install an automatic fire sprinkler system throughout the proposed or improved dwelling and garage. All attic access locations will be provided with a pilot head on a metal upright. Sprinkler coverage shall be provided throughout the residence to include all bathrooms, garages, and any area used for storage. The only exception is small linen closets less than 24 sq. ft. with full depth shelving. The plans for this system must be submitted to the San Mateo County Planning and Building Department. A building permit will not be issued until plans are received, reviewed and approved. Upon submission of plans, the County or City will forward a complete set to the Coastside Fire Protection District for review. (Add note to plans).
47. An approved Automatic Fire Sprinkler System meeting the requirements of NFPA-13D shall be required to be installed for your project. Plans shall be submitted to the San Mateo County Building Department for review and approval by the authority having jurisdiction.
48. Add note to the title page that the building will be protected by an automatic fire sprinkler system. (Add note to plans)
49. CRC 2016 Section R337: This project is located in a Local Very High Responsibility Area for wildfire protection. Roofing, attic ventilation, exterior walls, windows, exterior doors, decking, floors and underfloor protection shall comply with CRC 2016 Section R337 requirements. You can visit the Office of the State Fire Marshal's website at http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland.php and click the new products link to view the "WUI Products Handbook."
50. Copy R-337 Worksheet to a plan sized sheet and check appropriate boxes.
51. Provide window and door schedule showing it meets R-337 and add it to work sheet. All exterior doors including garage door must meet R-337.

52. Provide Eave and Gutter details that meet R-337 include all materials.
53. Add R-337 required vents to worksheet.
54. All fire conditions and requirements must be incorporated into your building plans, (see attached conditions) prior to building permit issuance. It is your responsibility to notify your contractor, architect and engineer of these requirements.
55. Contact the Fire Marshal's Office to schedule a Final Inspection prior to occupancy and Final Inspection by a building inspector. Allow for a minimum 72-hour notice to the Fire Department at 650/573-3846.
56. Any chimney or woodstove outlet shall have installed onto the opening thereof an approved (galvanized) spark arrester of a mesh with an opening no larger than 1/2-inch in size or an approved spark arresting device. Maintain around and adjacent to such buildings or structures a fuelbreak/firebreak made by removing and cleaning away flammable vegetation for a distance of not less than 30 feet and up to 100 feet around the perimeter of all structures or to the property line, if the property line is less than 30 feet from any structure. This is not a requirement nor an authorization for the removal of live trees. Remove that flammable portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe, or within 5 feet of any portion of any building or structures. Remove that dead or dying portion of any tree which extends over the roof line of any structure.
57. All dead-end roadways shall be appropriately marked to standards of the Department of Public Works. Inspection required at time of installation.
58. All dead-end roadways shall be terminated by a turnaround bulb of not less than 96 feet in diameter.

Granada Community Services District (District)

59. The applicant must obtain a sewer connection permit to connect the project to the District's wastewater facilities.

Coastside County Water District (CCWD)

60. The project is required to comply with Coastside County Water District regulations on water service and meters. The District performs inspections to verify compliance with all District regulations during construction and a final inspection when construction is complete.
61. If fire sprinklers are required by Coastside Fire Protection District, fire sprinklers are served from an independent and dedicated water service connection with a separate fire meter. Coastside County Water District does not allow passive purge

systems to be installed on fire protection serviced. Fire protection services are authorized for the sole purpose of fire protection, so there shall be no cross connection.

62. A full set of the most recent plans and drawings for the project, including a full set (fire sprinkler, architectural, plumbing, mechanical, green building, structural, civil, utility and landscaping/irrigation) must be submitted to the District for review and approval. Existing and new utilities must be clearly marked on the drawings.

The approval of this Design Review and Coastal Development Permit and any conditions of the approval may be appealed within ten (10) working days of the date of this letter. An appeal form accompanied by the applicable filing fee of \$616.35 must be submitted by **5:00 p.m., on May 25, 2020**. For more information, please contact the project planner, Olivia Boo, at 650/363-1818 or oboo@smcgov.org.

To provide feedback, please visit the Department's Customer Survey at the following link: <http://planning.smcgov.org/survey>.

Sincerely,



Melissa Ross, Senior Planner

MR:OB:pac – OSBEE0203_WPN_T.DOCX

cc: Wei Zheng, Owner
Katie Kostiuik, Member Architect
Bruce Chan, Member Landscape Architect
Chris Johnson, El Granada Community Representative
Jeremiah Armstrong, Interested Member of the Public
Kayoko Barbour, Interested Member of the Public
Aidan Brewster, Interested Member of the Public
Greg Furmanek, Interested Member of the Public
Aaron Halon, Interested Member of the Public
Dan Letters, Interested Member of the Public
Barbara Norman, Interested Member of the Public
Sharon Valdez, Interested Member of the Public



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT G

JEREMIAH ARMSTRONG

631 El Granada Boulevard
Half Moon Bay, California 94019

cell: 213-985-2950
mail@JeremiahArmstrong.com

May 26, 2020

San Mateo County Planning Commission
455 County Center, Second Floor
Redwood City, California 94063
planning-commission@smcgov.org

cc: Olivia Boo, Planner
Planning & Building Department
oboo@smcgov.org

Re: Appeal of PLN2019-00162 / El Granada Boulevard (APN 047-151-120)
Applicant: Wei Zheng

Dear Members of the Planning Commission:

For the reasons set forth below, the Commission should deny Wei Zheng's application for a proposed residence on El Granada Boulevard. The Commission has the legal authority to exercise its discretion under, *inter alia*, the County's General Plan to deny Mr. Zheng's application, in which he seeks to build a house that is oversized and incompatible with the uniquely shaped lot that sits atop a steep Coastside ridge.

Under General Plan Policy No. 15.3, the Commission is to "[i]ntegrate data on natural hazards into review of land use and development proposals in order to identify hazardous areas, potential constraints to development and/or appropriate mitigation measures." Under the regulatory umbrella of General Plan Policy Nos. 15.3, 15.12-15.13, 15.20-15.21, and 15.26-15.27, Mr. Zheng's proposed project presents Geotechnical, Erosion and Fire Hazards, as defined under General Plan Policy Nos. 15.5, 15.6, 15.9, 15.10, *et seq.*

In support of this appeal, please find attached as **Exhibit 1** the expert analysis of R. Rexford Upp, Ph.D., a registered geotechnical engineer, engineering geologist, soil engineer, and civil engineer with over 40 years of experience in the Bay Area. Also, a compilation of informative photographs of the site are attached as **Exhibit 2**.

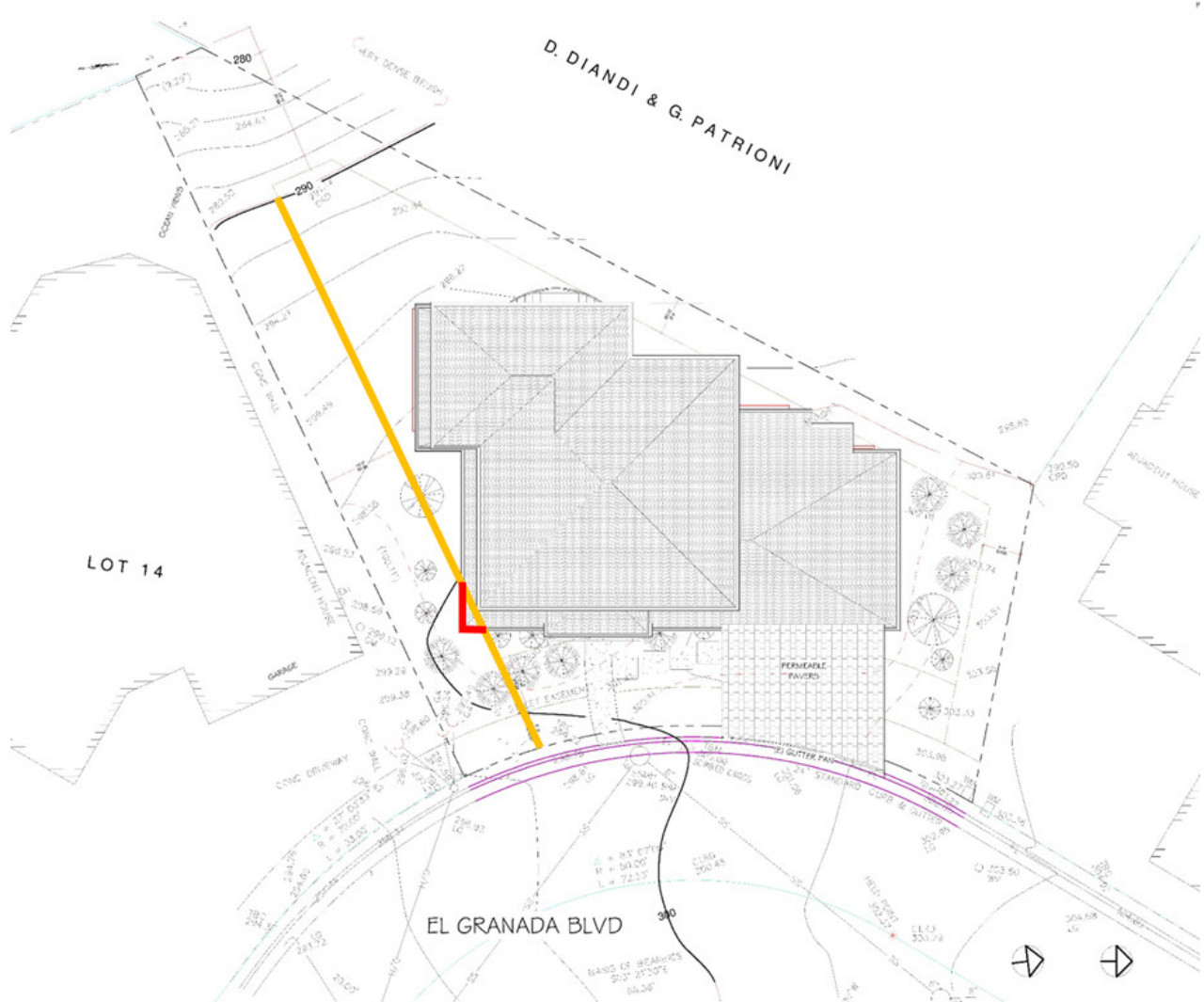
I. Premature for County to Consider Approval Because of Pending Litigation

There is currently litigation pending in San Mateo County Superior Court (*Armstrong v. Zheng et al.*, Case No. 20-CIV-01936) concerning a boundary dispute and easement on Mr. Zheng's property that was established by the prior owners of my property and was passed to me when I purchased my property in February 2019. The easement, which is not recognized in Mr. Zheng's proposal, includes at least 1,200 square feet of the lot. Mr. Zheng's proposed plans significantly exceed the buildable space of the lot when the easement is accounted for. Likewise, the proposed project improperly builds on top of and encroaches upon the easement. Therefore, until the litigation is fully adjudicated in court, it is premature for the County to approve—or

even consider—Mr. Zheng’s application given the substantial implications the easement has on the scope and feasibility of the proposed building. Accordingly, the Commission should pause consideration of Zheng’s project until the litigation is resolved in court.

II. The Proposed House’s Roof Exceeds the Lot Setbacks

The roof of the proposed residence exceeds the setback by nearly half a foot on the southwestern property line adjacent to my house (*i.e.*, the roof above “Bedroom 3” as shown on Sheets A0.02, A1.02, and A1.03 of Mr. Zheng’s March 2020 plans). This not only exceeds my disputed easement, but also exceeds the standard lot setback requirement. The following highlighted portion of Sheet A0.02 illustrates the problem:



This issue was not properly addressed by the Planning & Building Department or by the Coastside Design Review Committee even though it was raised at the April 9, 2020 hearing. In an email dated April 16, 2020, Mr. Zheng admitted that the roof exceeded this setback and suggested “reduc[ing] the roof edge by 20%” in order to be code compliant. This substantive design change has not been properly presented and the Planning Commission should not approve the project until (at least) the roof is altered with the necessarily revised plans presented to the community for further design review.

III. Mr. Zheng Has Not Retained a Qualified Geotechnical Engineer to Perform Requisite Analysis and Prepare Proper Reports, Particularly in View of Modifications to the Building Design

As detailed in Dr. Upp’s expert analysis, Mr. Zheng’s retained engineer, Charles Kissick of Sigma Prime Geosciences Inc., is a civil engineer, rather than a registered Geotechnical Engineer per the qualifications established by the California State Board of Professional Engineers, Land Surveyors, and Geologists. See Exhibit 1 (Upp Analysis) at pp. 3-4, 6. Accordingly, the July 30, 2019 report prepared by Kissick (**Exhibit 4**) that is substantially relied upon in the project plans (e.g., Sheet C-1) is insufficient to comply with requisite standards. Furthermore, Mr. Zheng’s design plans were significantly changed multiple times since Mr. Kissick’s July 2019 report. However, the Department wrongly relied on an outdated report prepared by an unqualified engineer in order to approve the project up to this stage. The Department’s May 11 Approval Letter indicates that comprehensive geotechnical analysis can *wait until after* the project is moved past the current planning stage, but that is imprudent given that the geotechnical implications directly affect the feasibility of building a large house on a steep hillside.

Given the substantial geotechnical implications this project has on adjacent properties due to the lot’s unique location and shape, the Planning Commission should mandate that an updated comprehensive report be prepared by a qualified geotechnical engineer so that it can be analyzed by the public and independent engineers—rather than left to the sole discretion of Department personnel *after* the project is no longer subject to appellate review.

Notably, from a geotechnical standpoint, Mr. Zheng’s proposal contravenes General Plan Policy No. 15.20(a)-(b): “Avoid the siting of structures in areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring properties. b. Wherever possible, avoid construction in steeply sloping areas (generally above 30%).” As currently set forth, Mr. Zheng’s proposal does not comply with this policy, as further explained in Dr. Upp’s expert analysis. See Exhibit 1 at pp. 3-4, 6.

IV. The Proposal Compromises the Integrity of the Hillside, Thereby Endangering Neighboring Properties and Causing Sedimentary Pollution in Nearby Waterways

Mr. Zheng's proposed project lacks a sufficient drainage and erosion control system, as detailed in Dr. Upp's expert analysis. See Exhibit 1 (Upp Analysis) at pp. 4-6. Mr. Zheng relied on Mr. Kissick's March 18, 2019 drainage report (**Exhibit 5**) in his plans, particularly on Sheet C-1. However, the drainage plans are not only inadequate per Dr. Upp, but they also fail to comply with the Department's mandate—sent to the applicant on May 21 and 24, 2019—that the detention basin be 23 feet long, whereas the proposed detention basin is now only 13.3 feet long in the proposed plans. See **Exhibit 6** (Accela Report at May 21 and 24, 2019).

Given the size of Mr. Zheng's proposed structure on an odd shaped lot that sits atop a steep hillside, drainage is of paramount concern for adjacent neighbors and for the environment. The following excerpt from Dr. Upp's analysis details the serious concern:

As shown on the DETENTION SYSTEM detail, the detention system design apparently is based on a 10 year storm event of 1 hour duration and a rainfall intensity of 0.924 inches per hour. Simply explained, in an hour about 1 inch of rain would fall on the roof and driveway with about 2,300 combined square feet. That amounts to about 330,000 cubic inches of rainfall in an hour or almost 200 cubic feet. What happens to that extra 100 cubic feet of roof runoff (that will not fit in the detention pipe) during an intense storm along the coast of Northern California? ...

With this size roof and driveway area, this tank only has the capacity to detain a rainfall of about 0.5 inches before it overflows. However, the only way shown for water to exit the pipe is through the clean-out access grate on top. ***From this grate, concentrated runoff will flow directly downhill, with minimal dissipation, for about 25 feet before it rushes onto the adjacent parcel.***

For millennia rain falling on this site was dispersed over a slope about 75 feet wide. The surface was protected from incisive erosion by dense vegetation and the dispersion of runoff. Surface erosion was spread out and was minor but it was enough to help create a deep canyon. With this proposed drainage system the same amount of water from a heavy rainfall (about 1,500 gallons) will be concentrated into a 1 foot wide highly erosive torrent that will first erode a system of closely spaced rills that soon will coalesce and enlarge into a gully.

Because the ground slope becomes much steeper on the adjacent parcel [see Figure 3 below], ***the concentrated runoff will increase in speed and turbulence and cause more erosion. The gully will continue to enlarge and eventually extend the erosion onto multiple adjacent and nearby properties with significant loss of land.***

The concentrated runoff will carry the eroded sediment into the downslope waterways and the nearby reservoir [see Figure 1 of Sigma Prime Geotechnical Report [Document F, above] for locations]. Where the sediment eventually settles from the water stream, it will disturb and bury the existing riparian (plant and animal) habitats, impact the neighbor's road, reduce the reservoir's capacity, and block culverts under the city streets of El Granada. Such preventable erosion and resulting water contamination and sedimentation is contrary to the requirements of the State of California Water Quality Control Board Regulations.

The obvious solution to this problem is to significantly reduce the area of the planned impermeable surfaces (roof and driveway) on the site. The reduced size of these surfaces would result in less stormwater collected and more area around the house available for its dispersal. The stormwater collected from these smaller surfaces should be discharged at multiple locations in a manner that allows it to spread out over the natural surface to flow downhill as it currently does resulting in no noticeable erosion.

Exhibit 1 (Upp Analysis) at pp. 5-6 (emphasis added).

General Plan Policies indicate that environmental concerns are critical when considering building projects. For instance, the Commission should be particularly mindful of the following General Plan Policies when evaluating Mr. Zheng's proposal:

- General Plan Policy No. 1.23: "(a) Regulate land uses and development activities to prevent, and if infeasible mitigate to the extent possible, significant adverse impacts on vegetative, water, fish and wildlife resources. (b) Place a priority on the managed use and protection of vegetative, water, fish and wildlife resources in rural areas of the County."
- General Plan Policy No. 1.25: "Ensure that development will: (1) minimize the removal of vegetative resources and/or; (2) protect vegetation which enhances microclimate, stabilizes slopes or reduces surface water runoff, erosion or sedimentation; and/or (3) protect historic and scenic trees."
- General Plan Policy No. 1.26: "Ensure that development will: (1) minimize the alteration of natural water bodies, (2) maintain adequate stream flows and water quality for vegetative, fish and wildlife habitats; (3) maintain and improve, if possible, the quality of groundwater basins and recharge areas; and (4) prevent to the greatest extent possible the depletion of groundwater resources."
- General Plan Policy No. 2.2: "Minimize soil erosion through application of

appropriate conservation practices.”

- General Plan Policy No. 2.9: “Define soil erosion as the process by which soil is detached and transported by running water, wind, and gravity. Include naturally occurring soil erosion, and that accelerated by human activity.”
- General Plan Policy No. 2.17: “Regulate development to minimize soil erosion and sedimentation; including, but not limited to, measures which consider the effects of slope, minimize removal of vegetative cover, ensure stabilization of disturbed areas and protect and enhance natural plant communities and nesting and feeding areas of fish and wildlife.”
- General Plan Policy No. 2.23: “Regulate excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation.”
- General Plan Policy No. 2.25: “Regulate topsoil removal operations to protect against accelerated soil erosion and sedimentation through measures which ensure slope stabilization and surface drainage control.”

The drainage report prepared by Mr. Kissick observes that the property drains to a watershed that covers an area of about 350 acres that extends eastward into the hills and ends in Pilar Point Harbor. Exhibit 5 at p. 3. “The property slopes down to a deep valley with an unnamed creek. The creek is about 800 feet to the west, and 350 feet lower in elevation.” *Id.* Even Mr. Kissick’s geotechnical analysis recognizes “*slope failure might occur about 50 feet below the property.*” Exhibit 4 at 5.

In view of these recognized dangers, the Planning Commission should exercise its legal authority to prevent the environmental damage that Mr. Zheng’s proposal presents, particularly erosion with cascading effects like sedimentary pollution to waterways and riparian corridors.

V. The Proposal Exacerbates Fire Danger in a Highly Vulnerable Zone and Does Not Provide Sufficient Setback for Vegetation Management

The property is located in a “Very High Fire Hazard Severity Zone.” See Planning & Building Department’s Approval Letter dated May 11, 2020 at ¶ 41 (hereinafter, “Approval Letter”). It would be imprudent for the County to approve the building of a structure so close to a deep valley (only 5 feet) in which vegetation management is outside Mr. Zheng’s control or that of adjacent neighbors. See Exhibit 1 (R. Rexford Upp’s Analysis Letter dated May 26, 2020) at p. 7 (hereinafter, “Upp Analysis”). Threatened with a fire, there is only one escape route for El Granada Boulevard residents—the street itself. Likewise, that street is the only access point for fire personnel to access the residences. This creates a very dangerous bottleneck.

Mr. Zheng's proposed structure should be setback farther from the property lines in order to provide more defensible space (i.e., more than 5 feet from the hillside) in the rear, and more space for fire personnel to access the hillside (i.e., more than 10 feet on the sides of the house). Otherwise, there will be no fuel break access points to the steep slope. Under pertinent fire code, "[a] fuel break of defensible space is required around the perimeter of all structures to a distance of *not less than 30 feet* and may be required to a distance of 100 feet or to the property line." See Coastside Fire Protection District Ordinance 2016-01 and 2016 California Fire Code 304.1.2. Five feet of from a steep hillside is not sufficient defensible space for a "Very High Fire Hazard Severity Zone."

As it stands, because the lot is empty, fire personnel have ready access to the hillside in order to mitigate rapid uphill spread of a wildfire. However, given how close the proposed structure is designed to sit next to the southern and northern property lines—approximately 10 feet—it would be virtually impossible for fire personnel to have ground access to fight a wildfire. As a result, the design plan endangers both Mr. Zheng's own proposed house along with those of the entire neighborhood if a fire were to enter the canyon and move up the hillside.

The very high fire risk in El Granada has been widely recognized by fire authorities and state agencies. In fact, based on a State of Emergency declared by Governor Newsom last year, CalFire supervised the major fuel break clearing on the other side of El Granada Boulevard and starting at Quarry Park, by removing large swaths of eucalyptus trees and other vegetation. See, e.g., <https://www.facebook.com/CALFIRECZUSanMateoSantaCruz/videos/581536569296899/>; https://www.hmbreview.com/news/new-state-report-highlights-coastside-wildfire-risk/article_5c202252-45c5-11e9-b887-abeb3678b826.html. Such clearing has not been conducted on the other side of El Granada Boulevard (i.e., the side upon which Mr. Zheng's property sits). Nevertheless, the very high fire risk in the area has been extensively highlighted in the media and evidenced by PG&E's lengthy mandatory power outages. See, e.g., **Exhibit 3** (various articles and publications regarding El Granada fire danger). Notably, the high fire risk is evidenced by the difficulty in obtaining residential fire insurance on El Granada Boulevard.

From a fire hazard standpoint, Mr. Zheng's proposal contravenes General Plan Policies and common sense. For instance, per General Plan Policy No. 15.27(a): "In rural areas, consider lower density land uses that minimize the exposure of significant numbers of people to fire hazards." Likewise, per General Plan Policy No. 15.34(a): "Require clearance of flammable vegetation around structures as a condition of approval to new development in accordance with the requirements of the agency responsible for fire protection."

If a fire reaches Mr. Zheng's property because fire personnel are unable to reach the hillside, the entire neighborhood is endangered. To mitigate this risk, the Planning Commission should require the proposed size of the house be reduced to allow for enlarged setbacks that make the property more defensible against fire and to provide reasonable access to fire personnel. Because Mr. Zheng's proposal is currently deficient in these ways, the Planning Commission should deny it.

VI. Planning & Building Department’s Analysis Lacks Transparency and Appears Designed to Avoid Appellate Review of Staff Decisions

The Planning & Building Department should be more forthcoming and transparent about its analysis of this proposed project rather than projecting a “just trust us” philosophy when confronted with public concerns. That Department mentality has evident during neighborhood discussion at the Coastside Design Review Committee hearing and when relevant documents related to this project were requested.

For instance, on November 6, 2019—shortly before the initial Coastside Design Review Committee hearing on November 14, 2019, for which the public was not given adequate notice due to late installation of story poles—I requested that the Department provide any geotechnical and soil engineering reports that have been prepared for the project. The County refused and instead provided the following misleading response on November 7, 2019: “I am responding to your request for the geotechnical and soil engineering report. Since the project entails only a Design Review Permit at the Planning stage, submittal of that report is not required, but will be at the Building Permit stage. The plans have been reviewed by the Building Department’s Geotechnical Section and has given Planning clearance that includes the requirement for the submittal of a soils report at the Building Permit stage.” *See* Email from D. Aguirre to J. Armstrong on 11/7/2019 at 4:03 p.m. But I discovered that the Department had in fact received Mr. Kissick’s March 2019 drainage report on April 19, 2019. *See* Exhibit 6 (Accela report retrieved May 26, 2020). And after the November design review hearing, Mr. Zheng’s architect sent me Mr. Kissick’s July 2019 geotechnical report at his discretion. Notably, the existence of such a report was evident from the early stages given the geotechnical discussion contained on Sheet C-1 of the plans. The Department withheld this information from the public when asked.

In another example, the May 11 Approval Letter notes the existence of a “submitted biologist report” that purports that “no special-status wildlife species are documented nor are any such species likely to occur within the project area.” *See* Approval Letter at ¶ 4(a). This report was not provided to the public and does not appear to be available on the Department’s website. To the extent the Department claims that such materials are available by going in-person to its Redwood City office, that is impractical given the Coronavirus era where governmental offices are persistently closed, and residents are instructed to shelter in place and avoid traveling.

There is no valid reason to withhold any of this information from the concerned public given that this is a project that has significant geotechnical, erosion, biological, and fire risks for adjacent neighbors. The Department’s approach seems to indicate that it wishes that such critical materials not be made available while the project is still appealable to the Planning Commission and the Board of Supervisors. The Department should be forthcoming about the information it has been provided and should also distribute the analysis that it has conducted itself upon request from the public.

In view of this, the Department’s May 11 Approval Letter indicates that the Department has significant discretion as to subsequent analysis and implementation of a grading plan—including from a geotechnical and erosion perspective—if the Planning Commission now approves the proposed project. However, the Planning Commission should not give the Department such latitude given this unique project. At a minimum, the Planning Commission should require that appropriate comprehensive investigations be conducted with the corresponding reports produced to the public so that a timely appeal can be raised upon independent review of the findings. The public should have a clear understanding about—and visibility into—what information the Department relies on when approving and implementing project plans. I ask that the Planning Commission encourage efforts for such transparency.

* * *

For the foregoing reasons, the Planning Commission should deny Mr. Zheng’s proposed project, which is out of scale for a lot so uniquely shaped and situated. As currently proposed, the project poses harm to adjacent properties and the environment.

Sincerely,

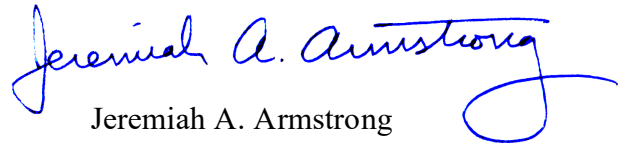

Jeremiah A. Armstrong

Exhibit Index

Exhibit No.	Description
1	R. Rexford Upp’s Analysis Letter dated May 26, 2020
2	Compilation of Site Photographs
3	El Granada Fire Hazard Publications
4	Geotechnical Study by Charles M. Kissick dated July 30, 2019
5	Drainage Report by Charles M. Kissick dated March 18, 2019
6	Accela Report from San Mateo County Planning & Building Department’s website (retrieved May 26, 2020)

Exhibit 1

R. REXFORD UPP, PhD
Geotechnical Consultant

P.O. Box 725, Campbell, CA 95009-0725
408-590-5587
rex@RexpertWitness.com

May 26, 2020
Project No. GE 392.1L1
Serial No. 464

Mr. Jeremiah Armstrong
631 El Granada Blvd.
Half Moon Bay, CA 94019

SUBJECT: LIMITED GEOTECHNICAL EVALUATION
PROPOSED NEW RESIDENCE - APPLICATION NO. PLN2019-00162
(APN 047-151-120) EL GRANADA BLVD., EL GRANADA, CALIFORNIA

Dear Mr. Armstrong,

INTRODUCTION

As you requested, I conducted a limited geotechnical evaluation based on documents that you provided for my review relating to the site development and the construction of a single family home on the vacant parcel adjacent to the north side of your residential property at 631 El Granada Boulevard in El Granada, California. The purpose of my services was to conduct a limited evaluation of the assessment of the site's geotechnical conditions as developed by others and as have been presented in documents for approval by the San Mateo County Planning and Building Department.

My opinions are preliminary and are based upon my level of education in engineering and geology, and my over 40 years of experience in El Granada, San Mateo County, and northern California, evaluating the geotechnical and geologic conditions of hillside home sites. My prior experience includes research and publications on the initiation of gully erosion and months in the field observing the effects of California's wildfires on erosion and slope stability. I also am a consultant to California State Board of Professional Engineers, Land Surveyors, and Geologists (BPELSG) on issues related to the professional practice of Geotechnical Engineering and Geology in California.

For your review, I have attached my resume to this report.

DOCUMENTS REVIEWED

- A. Drainage Report, Zheng Property (APN 047-151-120) by Sigma Prime Geoscience, Inc., dated March 18, 2019 (7 pages)

- B. Original Grading and Drainage Plan, Zheng Property, Sheet C-1, by Charles Kissick, CE 62264, dated March 18, 2019 (included in plans G below)
- C. Application for Design Review by the County Coastsides Design Review Committee for PLN2019-00162, signed April 15, 2019) (2 pages)
- D. Certificate of Exemption or Exclusion from Coastal Development Permit, Zheng Residence by Edward Love, signed April 15, 2019 (2 pages)
- E. Environmental Information Disclosure Form, Zheng Residence, signed April 15, 2019 (2 pages)
- F. Geotechnical Study, Zheng Property (APN 047-151-120) by Sigma Prime Geoscience, Inc., dated July 30, 2019 (20 pages)
- G. Original Building Plans for New Residence for the Zheng Family by Edward Love, Architect, Cover Sheet dated August 21, 2019 (15 sheets with Various dates)
- H. Status Report for PLN2019-00162 by County of San Mateo Planning & Building Department, dated November 5, 2019 (3 pages)
- I. Conditions Note for PLN2019-00162, County of San Mateo, dated November 6, 2019 (1 page)
- J. Notice of Public Hearing, Coastsides Design Review Committee Agenda, dated November 14, 2019 (3 pages)
- K. Letter, Zheng Residence, by Edward C. Love, Architect, dated Nov. 22, 2019 (1 page)
- L. First Revised Grading and Drainage Plan, Zheng Property, Sheet C-1, by Charles Kissick, CE 62264, dated November 25, 2019 (included in plans M below)
- M. First Revised Building Plans for New Residence for the Zheng Family by Edward Love, Architect, Cover Sheet dated December 3, 2019 (15 sheets with various dates)
- N. Letter, Coastsides Design Review Continuance, County of San Mateo Planning and Building to Edward C. Love, dated January 16, 2020 (2 pages)
- O. Accela Report for PLN2019-00162 by San Mateo County Planning & Building Department, dated February 3, 2020 (3 pages)
- P. Letter, Coastsides Design Review Continuance, County of San Mateo Planning and Building to Edward C. Love, dated February 26, 2020 (2 pages)
- Q. Second Revised Building Plans for New Residence for the Zheng Family by Edward Love, Architect, Cover Sheet dated March 2, 2020 (15 sheets with Various dates)
- R. Second Revised Grading and Drainage Plan, Zheng Property, Sheet C-1, by Charles Kissick, CE 62264, dated March 16, 2020 (included in plans Q, above)
- S. Letter, Coastsides Design Review Permit and Staff Level Grading Permit, County of San Mateo Planning and Building to Edward C. Love, dated May 11, 2020 (15 pages)
- T. Planning Permit Application Form, Zheng Residence, PLN2019-00162 BY Edward Love, undated (1 page)

- U. Parcel Map, EL GRANADA HIGHLANDS 14-RSM-PG023, undated, (1 sheet)
- V. Apple Map 3D View of 631 El Granada, undated (5 images)
- W. Photos taken of site conditions by Armstrong, undated (15 photos)

ISSUES WITH THE EL GRANADA SITE

My geotechnical evaluation was limited to the review of the above documents. Below I note selected documents from the above list that I have reviewed along with limited quotes and other extracted information from them. I present my opinions and my concerns about certain aspects that are written in these documents.

Grading and Drainage Plans Sheet C-1, dated 3/16/20 by Sigma Prime & Signed & Sealed by Charles Kissick [Document R, above]

A. GENERAL NOTES

Note 5 on sheet C-1 refers to the Geotechnical Report: **GEOTECHNICAL INVESTIGATION: PROPOSED RESIDENCE, EL GRANADA BOULEVARD, APN 047-151-120**; Dated 11/3/15 by BUCKLEY ENGINEERING ASSOCIATES.

Projects such as this site require an investigation by a Geotechnical Engineer to evaluate the site's geotechnical conditions including soil and rock engineering properties, drainage conditions, and slope stability. The engineer's findings and recommendations are presented in the Geotechnical Investigation Report and include the design and construction of the site's stormwater drainage control and the structure's foundation among others. The investigator and report author is The Geotechnical Engineer of Record.

The Grading and Drainage plans typically are prepared by a Civil Engineer. The plans, however, **MUST** incorporate the Geotechnical Engineers' recommendations. Although not stated on the plans, it is my experience that San Mateo County requires that the Geotechnical Engineer of Record review the plans and certify, in writing, that the Grading and Drainage Plans conform to his/her recommendations before the building permit is issued.

Note 5 on the Grading and Drainage Plans for the El Granada site states the Geotechnical Report ". . .SHALL BE RETAINED ON THE CONSTRUCTION SITE." The County requires that this report be on site during construction so the contractors **AND** the County Inspectors may refer to it when needed.

Note 5 also states the "GEOTECHNICAL PART OF CONSTRUCTION WORK . . ." must be approved by the Geotechnical Engineer of Record. This means the Engineer of Record must visit the site periodically during construction to observe and verify that the construction is being done in accordance with her/his recommendations. When construction is complete, the Geotechnical Engineer of Record writes a letter certifying that the project was built (or was not built) in accordance with the geotechnical recommendations.

It is my understanding that David Buckley is no longer practicing as a Geotechnical Engineer. If true, he can not be the project Geotechnical Engineer of Record and his report can not be the "Report of Record." As such, they should NOT be listed on the plans as the official geotechnical engineer and geotechnical investigation report.

The report I have been provided for review, titled "Geotechnical Study," was prepared by Sigma Prime Geosciences, Inc., signed by Charles Kissick, and dated July 30, 2019 [Document **F**, above]. Mr. Kissick is a Registered Civil Engineer, but not a Geotechnical Engineer.

Who is the Geotechnical Engineer of Record for this project? Her/his report must be submitted to the County for review and approval by the County's Geotechnical Engineer Peer Reviewer. Furthermore, the Final Grading and Drainage Plans must cite **both the approved Geotechnical Engineering Report** and the **Geotechnical Engineer of Record before these plans can be approved** and certainly **before a building permit may be issued**. In addition, a copy of the Geotechnical Report must be on site during construction for ready reference by the contractor, sub-contractors, and County inspectors. The Geotechnical Engineer of Record also must observe, on site, the stormwater drainage control, structure foundation, and other geotechnical aspects of the project.

Mr. Kissick is certainly a qualified Civil Engineer, but he is **not** a licensed Geotechnical Engineer. Therefore, I question if San Mateo County will allow him to legally be the Geotechnical Engineer of Record. I know the California State Board of Professional Engineers, Land Surveyors, and Geologists (BPELSG) would not allow him to refer to himself by the term "Geotechnical Engineer."

B. DRAINAGE NOTES

2. THE DETENTION BASIN SHALL BE WATER-TIGHT AND DRAIN TO ENERGY DISSIPATOR, AS SHOWN

The stormwater drainage control system is typically designed based on an analysis of the site's drainage conditions and the anticipated storms intensities. Mr. Kissick, the civil engineer, performed a drainage analysis and prepared a Drainage Report dated March 18, 2019 [Document **A**, above]. The drainage system shown on the original and first revision to the Grading and Drainage plans [Documents **B** and **L**, above] appears to have been based on the analysis presented in this March 18, 2019 report. This system includes a retention basin consisting of a buried 22.6 foot long solid 2.5 feet diameter pipe with a metered discharge to a small energy dissipater located at the downslope corner of the property.

What is shown on the Second Revised Grading and Drainage Plan, sheet C-1, dated March 16, 2020 [document **R** above] is a solid 2.5 feet diameter by 13.3 feet long pipe buried in a 3.5 feet wide by 4 feet deep pit filled with gravel. No

discharge device nor energy dissipator is shown. This pipe apparently is intended to function as the “detention basin” or a tank. The capacity of this tank is only slightly above 100 cubic feet, or about 750 gallons. The house roof and driveway have a watershed area of about 2,300 square feet.

As shown on the DETENTION SYSTEM detail, the detention system design apparently is based on a 10 year storm event of 1 hour duration and a rainfall intensity of 0.924 inches per hour. Simply explained, in an hour about 1 inch of rain would fall on the roof and driveway with about 2,300 combined square feet. That amounts to about 330,000 cubic inches of rainfall in an hour or almost 200 cubic feet. What happens to that extra 100 cubic feet of roof runoff (that will not fit in the detention pipe) during an intense storm along the coast of northern California? I have not been provided with a Drainage Report corresponding with this revised Detention System design for my review.

With this size roof and driveway area, this tank only has the capacity to detain a rainfall of about 0.5 inches before it overflows. However, the only way shown for water to exit the pipe is through the clean-out access grate on top. From this grate, concentrated runoff will flow directly downhill, with minimal dissipation, for about 25 feet before it rushes onto the adjacent parcel.

For millennia rain falling on this site was dispersed over a slope about 75 feet wide. The surface was protected from incisive erosion by dense vegetation and the dispersion of runoff. Surface erosion was spread out and was minor but it was enough to help create a deep canyon. With this proposed drainage system the same amount of water from a heavy rainfall (about 1,500 gallons) will be concentrated into a 1 foot wide highly erosive torrent that will first erode a system of closely spaced rills that soon will coalesce and enlarge into a gully.

Because the ground slope becomes much steeper on the adjacent parcel [see Figure 3 below], the concentrated runoff will increase in speed and turbulence and cause more erosion. The gully will continue to enlarge and eventually extend the erosion onto multiple adjacent and nearby properties with significant loss of land.

The concentrated runoff will carry the eroded sediment into the downslope waterways and the nearby reservoir [see Figure 1 of Sigma Prime Geotechnical Report [Document F, above] for locations]. Where the sediment eventually settles from the water stream, it will disturb and bury the existing riparian (plant and animal) habitats, impact the neighbor’s road, reduce the reservoir’s capacity, and block culverts under the city streets of El Granada. Such preventable erosion and resulting water contamination and sedimentation is contrary to the requirements of the State of California Water Quality Control Board Regulations.

The obvious solution to this problem is to significantly reduce the area of the planned impermeable surfaces (roof and driveway) on the site. The reduced size of these surfaces would result in less stormwater collected and more area around the house available for its dispersal. The stormwater collected from these smaller surfaces should be discharged at multiple locations in a manner that allows it to

spread out over the natural surface to flow downhill as it currently does resulting in no noticeable erosion.

County of San Mateo Design Review Letter of May 11, 2020 [Document **S**, above]

CONDITIONS OF APPROVAL

Grading Conditions

22. (b) “The Geotechnical consultant shall observe and approve . . .”

Who is the geotechnical consultant? If the County requires that the Geotechnical Consultant be a registered Geotechnical Engineer, the project will require that such an engineer be retained as The Geotechnical Engineer of Record. This engineer must conduct his/her own investigation and prepare a new written Geotechnical Report, or write a letter stating acceptance of the current report. She/he must review the Grading and Drainage and the Foundation Plans and certify in writing that these plans are in conformance with his/her geotechnical findings and recommendations. These steps must be taken **before the building permit is approved.**

Drainage Section

27. “An updated Drainage Report prepared and stamped by a registered civil engineer.”

The Drainage Report that I was provided for review is dated March 18, 2019 [Document **A**, above]. Since the preparation of this report, the drainage plan as shown in the current architectural drawing [Document **R** above] has been changed so that the detention basin is decreased in size. As a result, a new UPDATED drainage report **must be prepared** that evaluates whether this change is suitable. It may be necessary to reduce the size of the proposed house in order to provide sufficient space on the lot for an appropriate drainage detention and dispersal system.

28. “A final Grading and Drainage Plan prepared and stamped by a registered civil engineer.”

The “Final Grading and Drainage Plan” **MUST** be consistent with the updated Drainage Report and take into account and mitigate the adverse stormwater drainage conditions that are created by the large proposed impermeable surfaces (house roof and driveway), small lot size, and steep slopes. The significant stormwater drainage concerns may require a smaller house footprint and that change must be shown on the final Grading and Drainage plans.

Department of Public Works

31. This section requires a drainage analysis and includes multiple details for the analysis. Included is the requirement that **“Post-development flows and velocities shall not exceed those that existed in the pre-developed state.”**

This **critical requirement** clearly **has not been met**. Meeting this requirement likely will require a downsizing of the house’s footprint. Therefore, it is **NOT** appropriate to approve the design of this project at this stage given the implications on the inappropriate size of the structure.

Coastside Fire Protection District

41. “The building is in a **Very High Fire Hazard Severity Zone** . . . “

42. The “Coastside Fire Protection District Ordinance 2016-01” and the “2016 California Fire Code 304.1.2” state:

- a. “A fuel break of defensible space is required around the perimeter of all structures to a distance of **not less than 30 feet** and may be required to a distance of 100 feet or to the property line.”

This site is located within a very high fire hazard zone and at the top of a steep, heavily brush covered slope. Fire protection should be a major concern in the planning of this family’s residential structure! The plans clearly show a 5’-0” side yard set-back (SYSB) between the house and the property line. The adjacent downslope property is heavily vegetated with thick well established brush on a steep slope [See Attached Figures 1 & 2]. Wildland fires burn most rapidly upwards over steep brush covered slopes. This site clearly has a serious fire hazard and a fuel break between the brush and the wood-framed structure greater than the proposed 5 feet property line setback is warranted. I strongly recommend reducing the size of the house footprint in order to increase the available space for a wider fuel break.

* * *

It has been my pleasure to provide this geotechnical evaluation of the proposed structure.

Yours very truly,



R. REXFORD UPP, PH.D
Registered Geotechnical Engineer 2046



R. REXFORD UPP, PhD

Education:

Ph.D. ENGINEERING GEOLOGY, Stanford University
M.S. CIVIL ENGINEERING (Soil Mechanics and Foundations), Stanford University
M.S. WATERSHED MANAGEMENT, Humboldt State University
B.A. GEOLOGY, Humboldt State University
B.S. ENVIRONMENTAL ENGINEERING, Humboldt State University
B.S. MECHANICAL ENGINEERING, University of California at Berkeley

Professional California Licenses:

 I obtained all licenses by examination.

Professional Geologist:	PG 1361	(1981)	
Certified Engineering Geologist:	EG 1083	(1981)	
Professional Civil Engineer:	PE C37340	(1983)	
Registered Soil Engineer:	GE 2046	(1987) *	*Year license first
Certified Hydrogeologist:	HG 62	(1995) *	became available

Experience:

Independent Consultant - Expert Witness: (2012 to Present). I provide consultation and litigation support for issues relating to geotechnical engineering and engineering geology.

Technical Expert Consultant: CALIFORNIA STATE BOARD OF REGISTRATION FOR ENGINEERS, LAND SURVEYORS, & GEOLOGISTS (2010 - Present). I evaluate technical merits of negligence claims filed against licensed Geotechnical Engineers and Geologists.

Geotechnical Advisor: CALIFORNIA STATE GEOLOGICAL SURVEY - TECHNICAL ADVISORY COMMITTEE on the Alquist-Priolo Special Studies Act (2008 - 2016). I assisted in the re-evaluation of the Act.

Founder and Principal of Firm: UPP GEOTECHNOLOGY, INC. (1983 to 2011). I conducted all phases of engineering geology and geotechnical (soil) engineering studies including site development evaluations for residential, commercial, and industrial properties; forensic and insurance investigations of distressed properties; landslide evaluations and repairs; erosion and surface drainage problems; subsurface drainage, water intrusion, and groundwater studies; reservoir/pond development; leachfield evaluations; fault hazard evaluations; swimming pool and basement design; roadway and bridge abutment design; rock quarry development and reclamations; and environmental impact studies.

Senior Engineering Geologist/Geotechnical Engineer: CLEARY CONSULTANTS (1977-1979 & 1980-1983). I supervised engineering geology and geotechnical engineering studies for a variety of residential, commercial, and industrial projects.

GS 11 Geologist: U.S. GEOLOGICAL SURVEY (1979 to 1980). I conducted research on the location and activity of the Maacama Fault System in Mendocino County, California. (My study served as the basis for zoning portions of the Maacama Fault as active under the jurisdiction of the State of California Alquist-Priolo Special Studies Act).

Instructor: SAN JOSE STATE UNIVERSITY (1983 to 1986), I taught Soil Engineering and Rock Mechanics. HUMBOLDT STATE UNIVERSITY (1974 to 1975), I taught various geology courses.

Consultant: CITY OF EUREKA, CALIFORNIA (1975), I investigated the seismic and flood hazards to the City of Eureka; I also wrote the Seismic Safety Element and other portions of the Eureka General Plan.

Memberships:

CalGeo: The California Geotechnical Engineering Association - (President 2011-2012)
AEG: Association of Environmental and Engineering Geologists – (President 2000-2001)
FEWA: Forensic Expert Witness Association - (Past Director – Northern California Chapter)
ASCE: American Society of Civil Engineers (Life Member 2010)
GSA: Geological Society of America (Senior Member)

Figures 1 & 2 - Approximate Property Lines

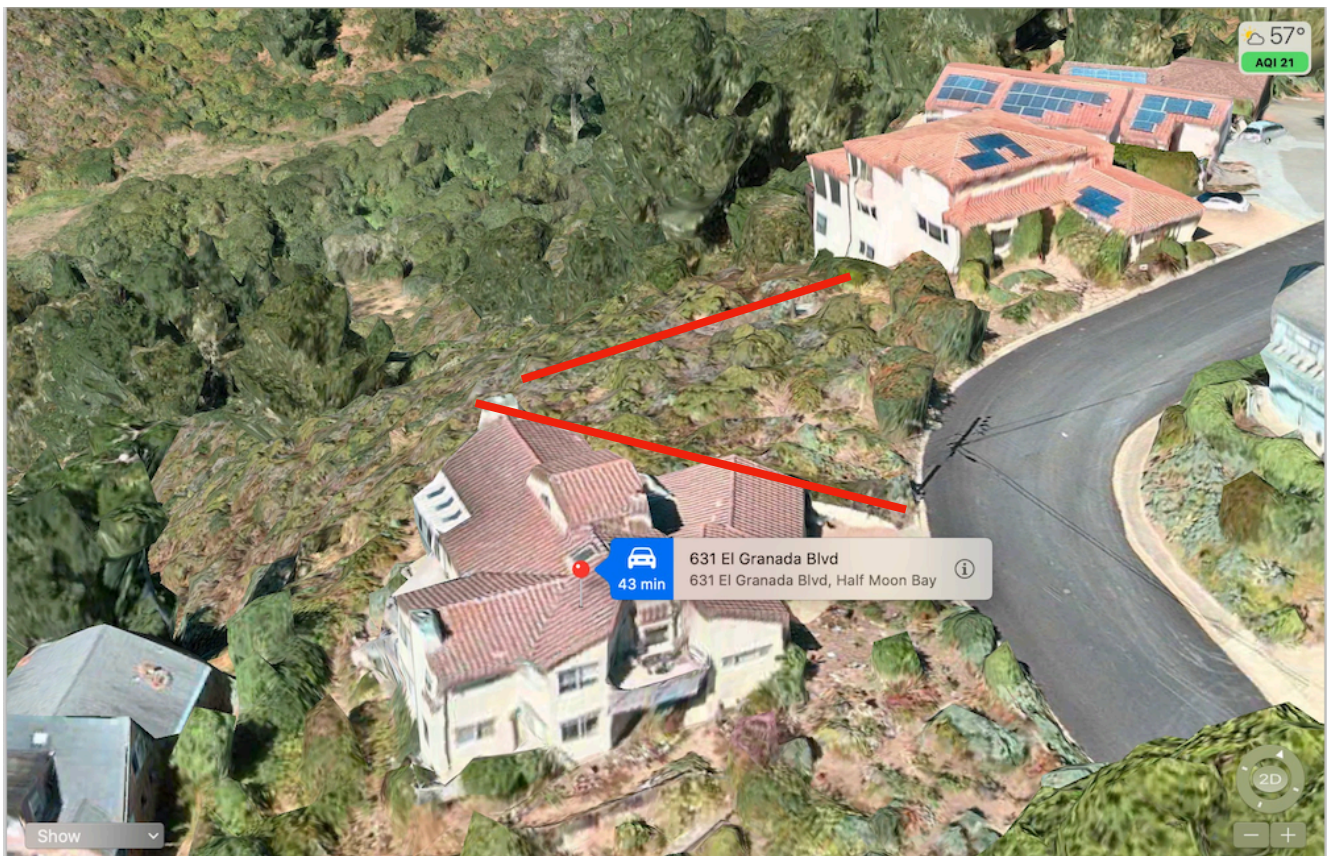
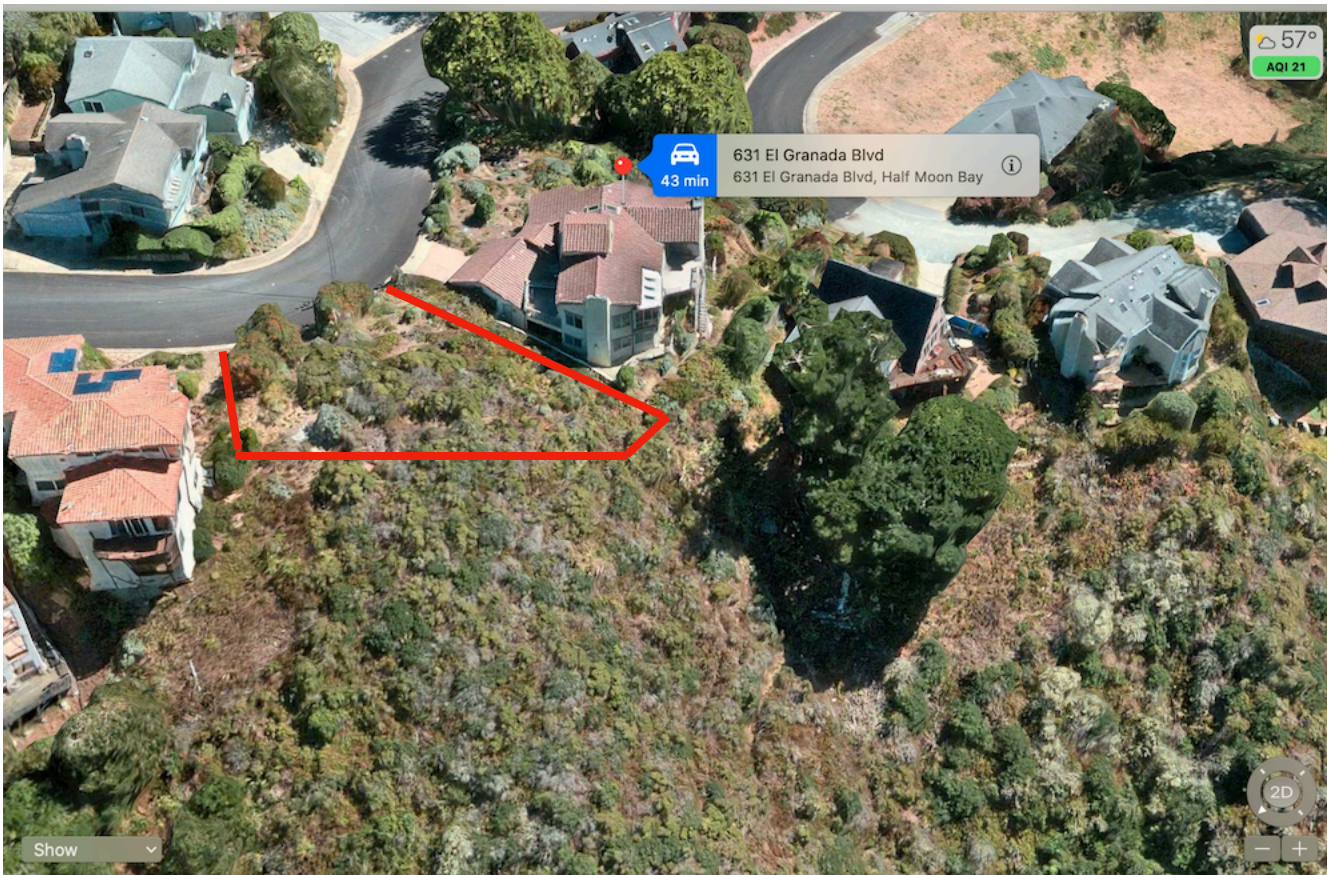




Figure 3 - Steep brush covered slope below proposed house

Approximate property line (dotted) is 5 feet from proposed house (flagged story poles)

Exhibit 2



Directions



631 El Granada Blvd





Map

Transit

Satellite



☁ 57°
AQI 21

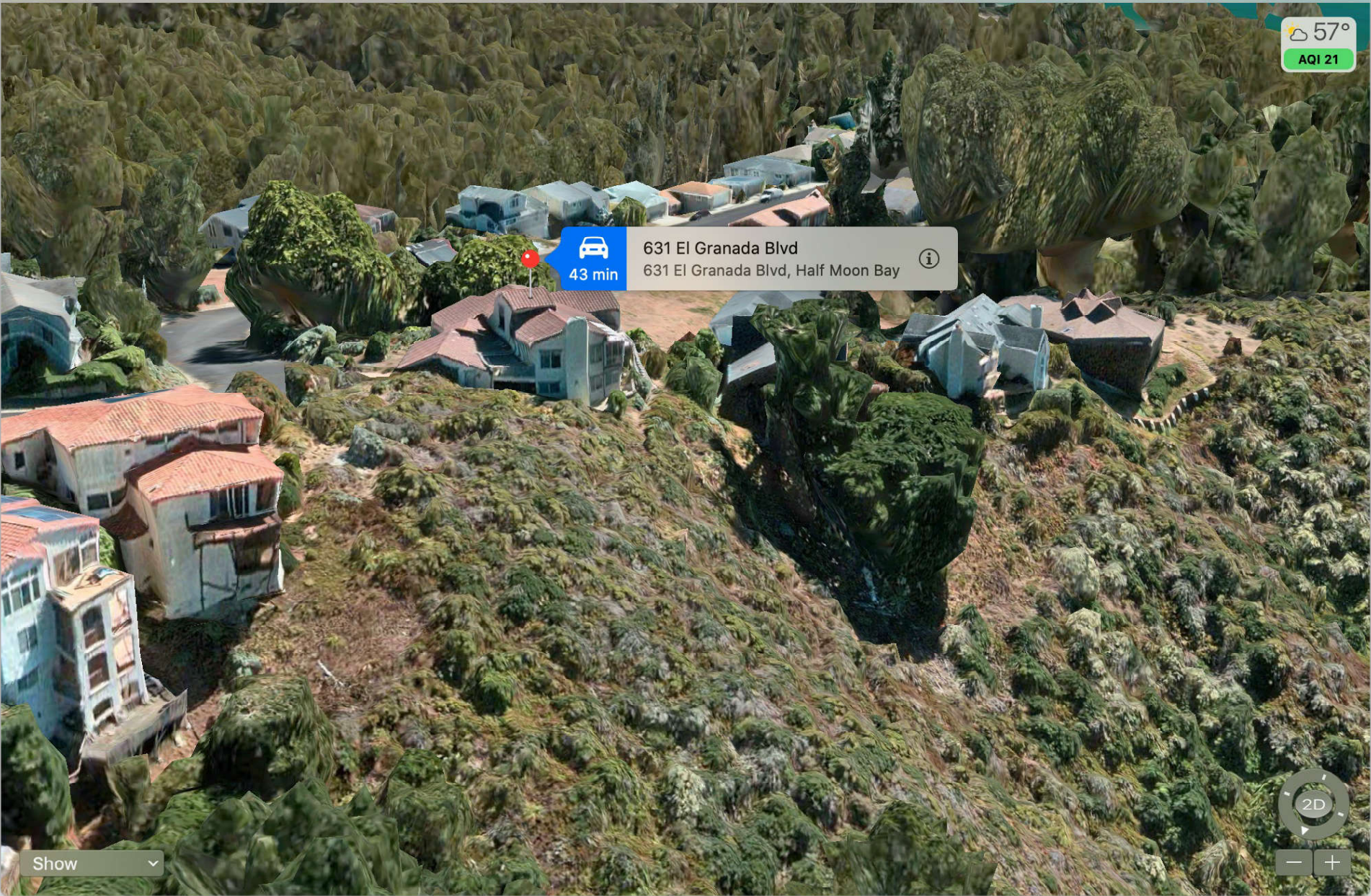
 631 El Granada Blvd
43 min 631 El Granada Blvd, Half Moon Bay 

Show ▾



57°
AQI 21



 631 El Granada Blvd
43 min 631 El Granada Blvd, Half Moon Bay 

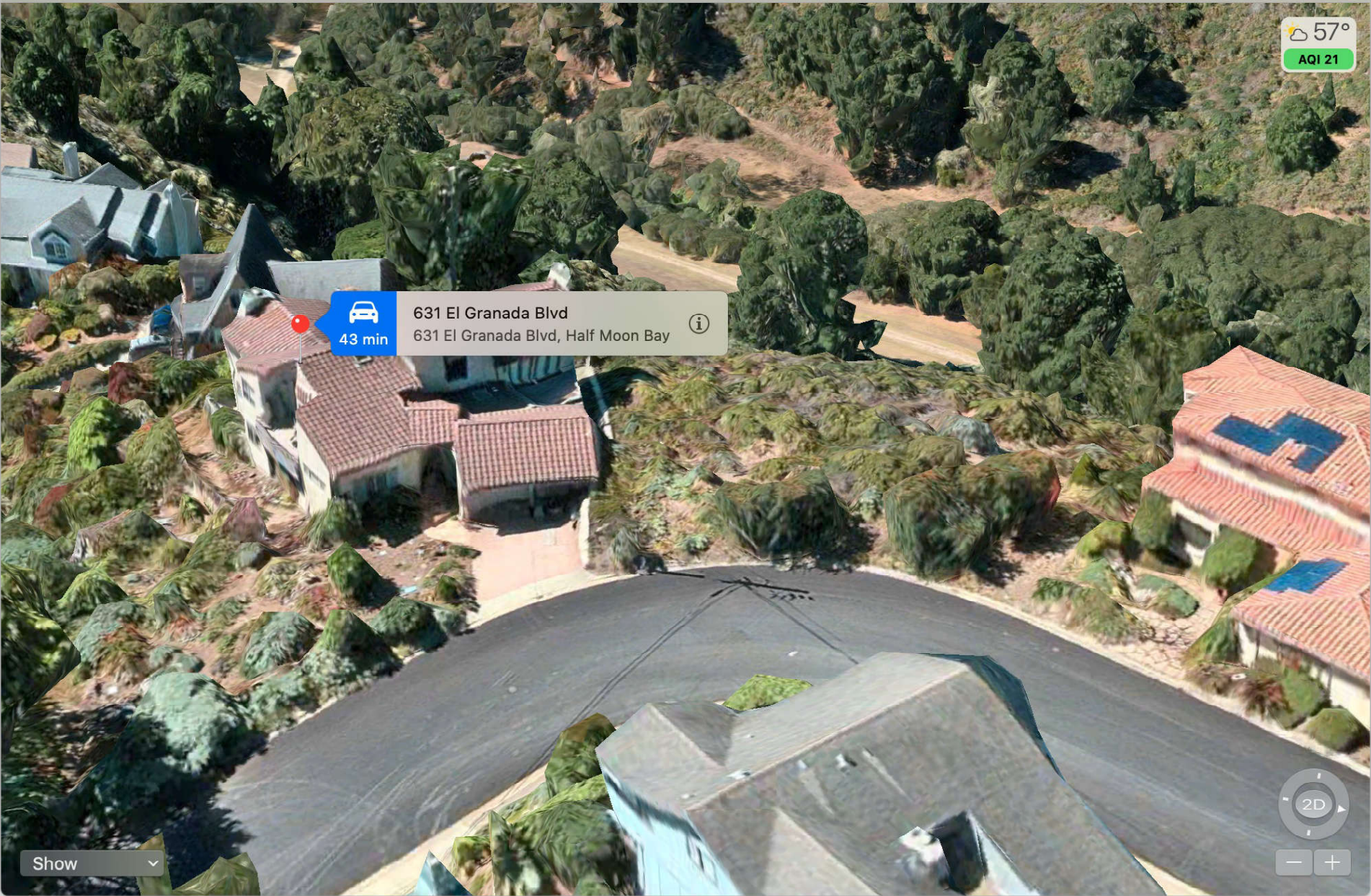


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2D
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57°
AQI 21

 43 min
631 El Granada Blvd
631 El Granada Blvd, Half Moon Bay 



Show ▾













Exhibit 3



May 1, 2019

Chief Porter, Director
Department of Forestry and Fire Protection
1416 9th Street, Suite 1505
Sacramento, CA 95814

Re: The Quarry Park Emergency Shaded Fuel Break

Dear Chief Porter,

On March 22, 2019, Governor Newsom proclaimed a state of emergency involving forest conditions near vulnerable communities. The proclamation enables the Secretary for the California Environmental Protection Agency or Natural Resources Agency to suspend State environmental statutes, rules, regulations, and requirements to the extent necessary to complete priority fuel management projects started this calendar year. In considering whether to suspend any requirements, the Secretaries must determine that the proposed activities are eligible to be conducted under this suspension and will take protection of the environment into account while ensuring timely implementation.

CAL FIRE has requested suspension of Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division, commonly known as the California Environmental Quality Act (CEQA), for the Quarry Park Emergency Shaded Fuel Break, which is one of the thirty-five priority projects identified in the Community Wildfire Prevention and Mitigation Report (February 22, 2019).

Project Description

The Quarry Park Shaded Emergency Fuel Break is a 100-acre project that will restore previously-cut fuel breaks within a eucalyptus stand surrounding densely-populated communities near Half Moon Bay, El Granada and Miramar in San Mateo County.

Discussions with other agencies have indicated that a transition of vegetation from the monoculture resulting from the a 100-year-old Eucalyptus stand over to a diverse native stand would be beneficial for both wildlife habitat and fire resiliency concerns.

Immediate implementation of this project is necessary to protect the City of Half Moon Bay and the communities of El Granada and Miramar, including, El Granada Elementary School which is adjacent to the project area.

1416 Ninth Street, Suite 1311, Sacramento, CA 95814 Ph. 916.653.5656 Fax. 916.653.8102 <http://resources.ca.gov>



CAL FIRE has incorporated protection of the environment into the design of this project. While specific measures may vary by emergency project, required protective measures include those described in CAL FIRE's "Protective Practices for CAL FIRE's 35 Emergency Fuels Reduction Projects" (April 2019). In addition, CAL FIRE has contacted local offices of the Department of Fish and Wildlife and Regional Water Quality Control Board to invite staff to visit the site and provide input on project design.

Suspension

Because the Quarry Park Emergency Shaded Fuel Break is urgently needed to protect vulnerable communities and because CAL FIRE has incorporated environmental protection into project design, I find that this project is eligible under the Governor's Proclamation. Therefore, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are hereby suspended for that project. This suspension may be revised or further conditioned as necessary to protect public health and the environment. Suspension of additional regulatory requirements may be considered as project implementation proceeds. This suspension does not alter any requirements imposed by federal law.

Sincerely,



Wade Crowfoot
Secretary for Natural Resources

QUARRY PARK COUNTY PARK – Emergency Shaded Fuel Break

El Granada, San Mateo County, CAL FIRE San Mateo Santa Cruz Unit

To fulfill Governor Newsom's [Executive Order N-05-19](#) issued on January 9, 2019, CAL FIRE released a report, called the [Community Wildfire Prevention and Mitigation Report](#). This report delivered recommendations to reduce public safety hazards associated with catastrophic wildfire and specifically prioritized 35 projects that will protect 200 of California's most wildfire-vulnerable communities.

The Quarry Park Shaded Fuel Break is a 100-acre project to restore a system of access roads and perimeter fuel breaks within a 500-acre Eucalyptus stand near Half Moon Bay in San Mateo County.

This stand and the hundreds of homes within and around it has been identified through fuel models and fire behavior models as the highest priority for mitigation. The stand has had two significant historical fires, including one with fatalities. A north wind could easily burn a fire directly into a 1980s-era subdivision. There have been numerous small fires within the stand over the past 20 years, but old roads that were kept opened enabled fast response. New growth has overwhelmed the rest of the road system and this project will correct that.

This project will help protect the City of Half Moon Bay and the communities of El Granada and Miramar. There is one elementary school, El Granada Elementary, that is adjacent to the project area.

1. Laws requested to be suspended:

Per directive 4 in the Emergency Proclamation issued March 22, 2019 the Department of Forestry and Fire Protection (CAL FIRE) requests suspension of the California Environmental Quality Act (CEQA), Division 13 (commencing with section 21000) of the California Public Resources Code, and regulations adopted pursuant to that Division for this priority fuels reduction project.

2. Project description:

Quarry Park is approximately 517 acres of Eucalyptus and Monterey pine that was planted prior to 1905 for a sub-division that was never completely built. Portions of the stand were harvested in the 1980s. The current forest has an estimated 20,000 tree stems per acre. This forest has been heavily impacted by the recent drought. An estimated 25 percent of the trees are dead or dying.

The stand has an existing road system constructed in the 1980s that has become overgrown by the Eucalyptus and other invasive species. The dense

area of planted Monterey Pine at the southern end of the park is aging and heavily impacted by bark beetles and pitch canker disease. The stand density will be significantly reduced by removing dead trees and will improve the health of the remaining trees.

These dense forested areas extend directly up to and around numerous homes in the town of El Granada. There have been several fires, including one during the early 1900s that resulted in several fatalities. This forest and the hundreds of homes within and around it has been identified through fuel and fire behavior models as the highest priority for mitigation in San Mateo County.

Recently, CAL FIRE engine crews working with County Parks staff, have worked on thinning a narrow break behind homes on park lands. Parks staff have been working on opening some of the existing roads. This project will significantly expand such work and reduce fire danger to the community.

The focus of this project is to directly protect the community of El Granada from potential damage from wildfires and protect the wildland and critical watersheds from fires starting in or near human infrastructure. The project is designed to be not only a control line between the park and the hundreds of structures adjacent and south of the project but also to allow for quick emergency access.

The specific location was chosen based on an evaluation of the topography, fuel loading, and proximity to the protected communities. Additional consideration includes locating the project in an area that helps address ignition sources and fire spread.

The crowded condition of the forest is creating many weak trees. Thinning the forest will make it healthier and more drought resistant. The chips will be distributed throughout the fuel break and will be utilized as both mulch and erosion control matting.

During previous projects, existing suppressed native species (coffee berry, toyon, live oak and others) have been observed growing up through the chip matt about 6 months following treatments. Re-establishment of this native vegetation will be encouraged, especially as it is more fire resistant than the non-native Eucalyptus and pine species. Discussions with other agencies have indicated that a transition of vegetation from the monoculture resulting from the establishment of a 100-year-old Eucalyptus stand over to a diverse native stand would be desirable for both wildlife habitat and fire resiliency concerns.

3. Project location:

Quarry Park in El Granada, San Mateo County. CAL FIRE San Mateo Santa Cruz Unit. See attached map.

4. Treatment methods and equipment that will be used:

All field layout for this project will be completed by a CAL FIRE Registered Professional Forester working with the County Arborist.

This project will be 50% manual and 50% mechanical (masticator) with 20 acres of piling and burning of project-generated slash. The fuel breaks are planned to range from 30 feet to 100 feet off the edge of the existing roads or back from the park boundary.

The project will involve cutting all Eucalyptus and pine within the treatment areas less than 8 inches in diameter. In addition, larger trees that are dead or significantly unhealthy, trees identified as threatening residences, or trees that impede emergency vehicle access will be cut. The crowded condition of the stand is creating many weak trees, with a large dead component. Thinning the forest will make it healthier and more drought resistant. The chips will be distributed throughout the fuel break and will be utilized as both mulch and erosion control matting. During previous projects, existing suppressed native species (coffee berry, toyon, live oak and others) have been observed growing up through the chip matt about 6 months following treatments. Re-establishment of this native vegetation will be encouraged, especially as it is more fire resistant than the non-native Eucalyptus and pine species.

Approximately half of the project will be completed using heavy equipment (masticators) which will chip the brushy vegetation, reduce the number of smaller diameter trees, and remove dead or dying vegetation within the shaded fuel break.

Piling and burning is expected to be used on approximately 20 acres of the shaded fuel break, in the areas away from the residences. Pile burning would be localized and relatively small (i.e., maximum size about 64 square feet or 200 cubic feet).

5. Communities protected:

The towns of El Granada and Montara, and the City of Half Moon Bay in San Mateo County.

6. Considerations for ecological or cultural resources:

Project activities are designed to avoid significant effects and avoid taking special status species that are listed as rare, threatened, or endangered

under Federal law; or rare, threatened, endangered, candidate, or fully protected under State law; or as a sensitive species by the California Board of Forestry and Fire Protection. A California Natural Diversity Database search has been completed and appropriate field review conducted to detect species prior to project disturbance. If protected species are found within the project boundary a CAL FIRE or DFW Biologist will be consulted for appropriate protection measures.

In addition, a current archeological records check has been completed. An archeological field review will be conducted by qualified personnel. In addition, a Registered Professional Forester or designee will be onsite sufficiently during operations to evaluate the presence of cultural resources and ensure cultural resource protection through avoidance.

7. Best Management Practices that will be used in this project:

To ensure environmental protection when designing and constructing fuels reduction projects, CAL FIRE utilizes the standard protection practice of identifying and avoiding sensitive resources. A comprehensive list of required Best Management Practices (BMPs) has been developed by CAL FIRE through cooperation with the California Department of Fish and Wildlife and State Water Resource Control Boards. These required BMPs will be used to provide natural resource protection when implementing all 35 priority fuels reduction projects.

Additional BMPs may be implemented on a project-by-project basis as necessary and in conjunction with information from the local California Department of Fish and Wildlife (CDFW) office and the local Regional Water Quality Control Board (RWQCB.) CAL FIRE will also work closely with biologists and the County Arborist at San Mateo County Parks to identify additional protection measures they would like to see implemented.

8. California Natural Diversity Database(CNDDDB) search:

California Natural Diversity Database(CNDDDB) search was completed and results have been analyzed and avoidance measures will be implemented in project design. Results of CNDDDB query are on file at the local CAL FIRE Unit.

The only species identified in the CNDDDB search was the San Francisco Garter snake (*Thamnophis sirtalis tetrataenia*). It is as an endangered species. Its preferred habitat is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows. Their primary food as adults are Red-legged frogs (*Rana draytonii*) and as juveniles, Pacific tree frogs (*Pseudacris regilla*). The project area is densely vegetated with almost no grassy hillsides open to the sun present.

Red-legged frog was not identified in the search but could be located nearby. This treatment project will be avoiding any pond areas and any open grasslands. The treatment areas are all dense Eucalyptus stands with deep duff layers and similar pine stands. In addition, County Parks employees have indicated that neither species has been sighted on the property.

Project activities shall be designed to avoid significant effects and avoid take of special status species as defined as a plant or animal species that is listed as rare, threatened, or endangered under Federal law; or rare, threatened, endangered, candidate, or fully protected under State law; or as a sensitive species by the California Board of Forestry and Fire Protection.

A California Department of Fish and Wildlife biologist has been consulted to provide guidance on project activities.

9. California Office of Historic Preservation, California Historic Information Centers (CHRIS) archeological database search:

The California Office of Historic Preservation, California Historic Record Information Centers (CHRIS) archeological database has been searched for sensitive cultural resources in the project area. There is one cultural resource located adjacent to the project, however it is well outside of the project boundaries. The site will be avoided by staying within the County Park.

The California Office of Historic Preservation, California Historic Information Centers (CHRIS) archeological database has been searched for sensitive cultural resources in the project area. A CAL FIRE Archeologist will be consulted as necessary to help ensure cultural resource protection. An archeological field review will be conducted by qualified personnel. In addition, a Registered Professional Forester or designee will be onsite sufficiently during operations to evaluate the presence of cultural resources and ensure cultural resource protection through avoidance.

Notification letters have been provided to local Native American Tribes describing the project and soliciting any information that will help ensure cultural resource protection.

10. Outreach to the Regional Water Quality Control Board (RWQCB):

Notification letters have been submitted to the pertinent local RWQCB staff and are on file at the local CAL FIRE Unit.

11. Outreach to the Department of Fish and Wildlife (CDFW):

Notification letters have been submitted to the pertinent local CDFW staff and are on file at the local CAL FIRE Unit.

12. Verbal outreach communication status with other agencies:

Initial outreach was provided to both RWQCB and CDFW local staff via phone and letter to explain the project. Communication, consultation, and site visits will be ongoing as appropriate throughout the project.

13. Outreach to local government:

1. Local County Board of Supervisors and staff
2. CDFW Timber group in San Mateo
3. San Mateo County Fire Safe Council
4. San Mateo County Planning
5. San Mateo County Public Works
6. Several local state leg staff (Hill)
7. Friends of San Mateo County Parks
8. Mid-Coast Community Council (MCC)

In addition to outreach, this project could only happen due to a partnership between the Local Unit and the following entities:

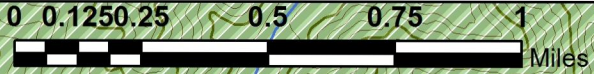
1. San Mateo County Parks staff
2. San Mateo County Resource Conservation District
3. Coastside Fire Protection District
4. San Mateo County Fire District

14. Lead contact person for the project:

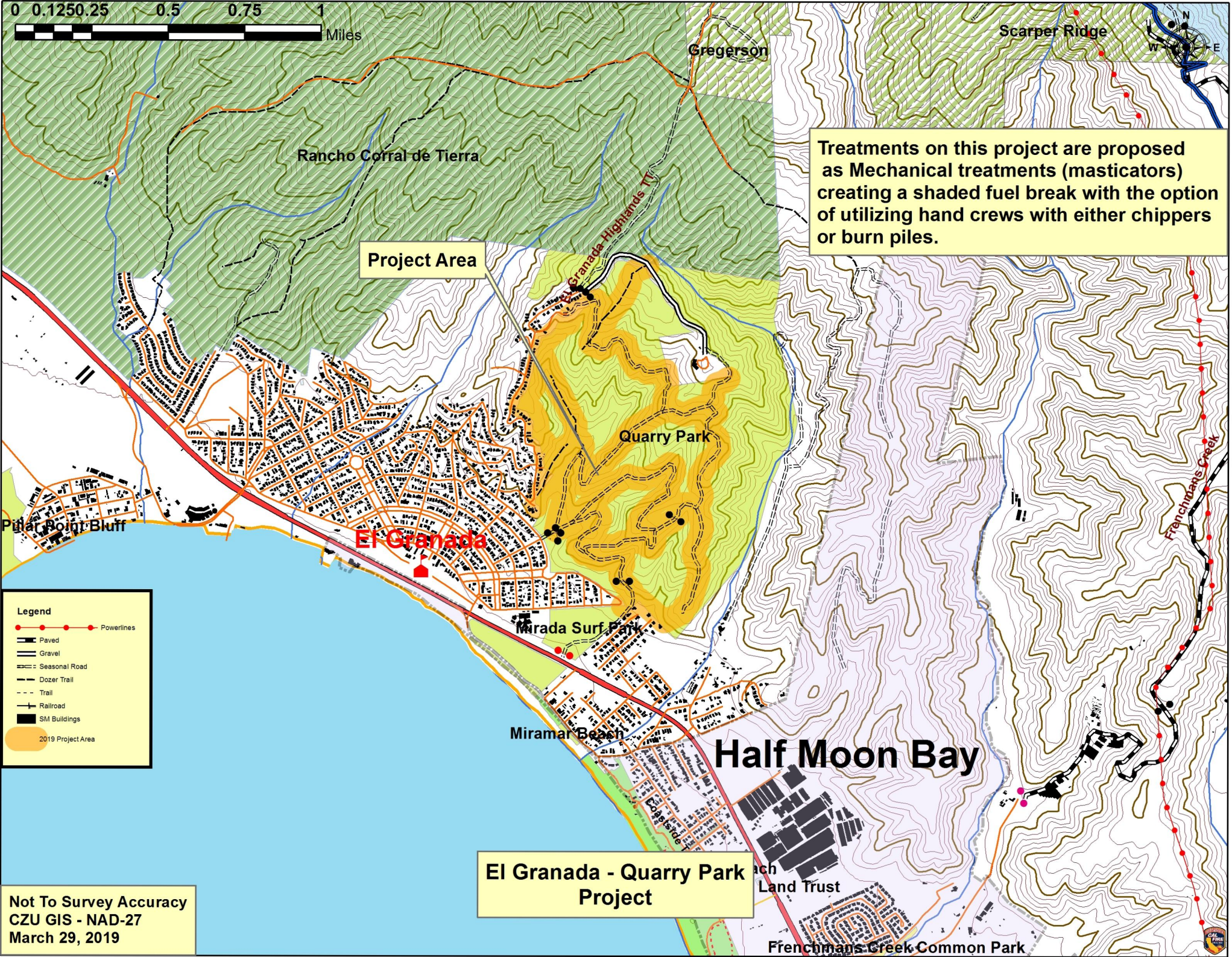
Primary - Rich Sampson (831)254-1705; Richard.Sampson@fire.ca.gov

15. Estimated start date for the project:

This project will commence upon execution of contracts and appropriately dry soil conditions, which may occur in June 2019.



Treatments on this project are proposed as Mechanical treatments (masticators) creating a shaded fuel break with the option of utilizing hand crews with either chippers or burn piles.



Legend

- Powerlines
- Paved
- Gravel
- Seasonal Road
- Dozer Trail
- Trail
- Railroad
- SM Buildings
- 2019 Project Area

Not To Survey Accuracy
CZU GIS - NAD-27
March 29, 2019

**El Granada - Quarry Park
Project**



Protective Practices for CAL FIRE's 35 Emergency Fuels Reduction Projects

April 5, 2019

Summary:

To fulfill Governor Newsom's [Executive Order N-05-19](#) issued on January 9, 2019, CAL FIRE released a report, called the [Community Wildfire Prevention and Mitigation Report](#). This report delivered recommendations to reduce public safety hazards associated with catastrophic wildfire and specifically prioritized 35 projects that will protect 200 of California's most wildfire-vulnerable communities. To enable immediate implementation of these 35 priority public safety projects, Governor Newsom proclaimed a [State of Emergency](#) on March 22, 2019. In response to this proclamation, CAL FIRE has requested suspension of the California Environmental Quality Act [CEQA] for the 35 emergency projects.

For each of these 35 projects, CAL FIRE will provide a packet of information containing the following:

- Identification of specific laws to be suspended for each project
- Complete project description including:
 - Brief narrative describing the project and desired accomplishments
 - Project location-map of the area showing areas of treatment
 - Communities to be protected by the project
 - Special considerations regarding ecological or cultural resources
- Description of the Best Management Practices
- Status of California Natural Diversity Database search
- Status of the California Office of Historic Preservation, California Historic Information Centers (CHRIS) archeological database search
- Status of outreach letter transmitted to the Regional Water Quality Control Board (RWQCB)
- Status of outreach letter transmitted to the California Department of Fish and Wildlife (CDFW)
- Verbal outreach communication status with other agencies
- Record of outreach to local governments (could be list of local leaders who have/will receive briefing on the project). Entities to consider could include County, City, Fire Safe Councils, Resource Conservation Districts, local stakeholders and interest groups
- The lead contact person for the project, and contact information

- An estimated start date for the project

Project packet information will be posted on CAL FIRE's website. Additionally, to ensure communication for project activities, CAL FIRE field staff have verbally communicated project objectives with local and regional CDFW and RWQCB staff. Written notification has also been provided. Continual coordination will occur through CAL FIRE's Fire planning process with local stakeholders and cooperators. This process combines local fuel reduction priorities with desired community protection to ensure projects are designed and implemented cooperatively. The fire plan process helps ensure a sharing of resources to facilitate an informed, educated and efficient implementation of priority projects.

Projects implemented under this CEQA suspension will be light touch vegetation removal focused on reducing the vertical and horizontal continuity of fuels. Generally, this means the non-commercial removal of smaller trees in the understory to eliminate ladder fuels, and thinning forests to a density where a crown fire is less likely to occur. A few projects may involve commercial timber harvest and will comply with the California Forest Practice Act and Rules prior to timber operations. Other activities beyond vegetation treatment such as new road construction and watercourse crossing will require site specific CEQA compliance through consultation with pertinent agencies.

In implementing the 35 emergency projects, CAL FIRE and its contractors will utilize CAL FIRE's established protection practices to protect natural and cultural resources while fulfilling the intent of the Executive Order, in addition to Best Management Practices (BMPs) identified by the California Department of Fish and Wildlife (CDFW) and the State Water Resources Control Board and the nine Regional Water Quality Control Boards (Water Boards). Additional BMPs may be implemented on a project-by-project basis as necessary.

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General Best Management Practices

CAL FIRE has a suite of comprehensive natural resource and environmental protection programs. CAL FIRE employs various resource professionals including Registered Professional Foresters, Environmental Scientists, Archeologists, Hydrologists, Soil Scientists, Fire Scientists, and various other experts in natural resource protection. CAL FIRE uses the totality of its resource professionals to ensure environmental protection for any project it undertakes, including fuel breaks. To ensure environmental protection when designing and constructing fuel breaks, CAL FIRE utilizes the standard protection practice of identifying and avoiding sensitive resources. There is a great deal of flexibility in fuel break design and adjusting a fuel break location is often all that is needed to avoid sensitive resources.

The following represent standard Best Management Practices that will be implemented for the 35 projects identified in the report and as directed in the Emergency Proclamation.

1. **Project Notifications:** For each of the 35 projects, CAL FIRE will send letters of notification to the Department of Fish and Wildlife, the relevant Regional Water Quality Control Board, and Native American Tribes. These letters will advise the recipients of the project location, scope and timing, and request that they contact the CAL FIRE Unit implementing the project with any concerns regarding natural and cultural resource protection.
2. CAL FIRE, the local Regional Water Quality Control Board (RWQCB) and the local California Department of Fish and Wildlife (CDFW) will exchange and maintain a current list of contacts and back up contacts for each project area. CAL FIRE should ensure all staff, contractors and sub-contractors have the CDFW and RWQCB contact information and coordination expectations.
3. A Registered Professional Forester (RPF) or their designee will be sufficiently available onsite during project implementation to assist with cultural resource surveys, identification and protection. All resources identified for protection will be flagged, painted or marked prior to operations. The standard practice of resource identification and avoidance will be adhered to for resource protection.

4. Resource Identification – Project Planning: All protected resources should be flagged, painted, or otherwise marked prior to the start of operations by someone knowledgeable of the resources at risk, their location, and the applicable protection measures to be applied. This work should be performed by a RPF, or their designee.

Cultural Resource Measures

5. Known Cultural Resources Sites: CAL FIRE will avoid damaging known archaeological or historical sites. Information on these sites may be available from the Information Centers of the California Historical Resources Information System within the California Department of Parks and Recreation. CAL FIRE queries this system during project scoping and will also have a RPF or their designee onsite sufficiently during operations to evaluate the presence of cultural resources and ensure cultural resource protection through avoidance.
6. Prior to the start of operations, if any cultural resource sites have been identified within the activity area, identified cultural resource sites will be appropriately marked and locations communicated to operating contractors to ensure protection and avoidance. Confidentiality of cultural resources sites must be maintained with a minimal disclosure of site locations.

Biological Resource Measures

7. Known sites of rare, threatened, or endangered plants or animals should not be disturbed, threatened, or damaged during the construction of a fuel break. Information on some of these sites may be available from the CDFW Natural Diversity Database. CAL FIRE queries this database during project scoping. A RPF or their designee will be sufficiently present onsite during operations to evaluate the presence of biological resources and ensure biological resource protection through avoidance.
8. If any wildlife is encountered during project activities, said wildlife will be allowed to leave the area unharmed and if any listed wildlife is encountered and cannot leave the project site on its own, CAL FIRE

should contact CDFW immediately consult regarding species relocation protocol.

Riparian and Water Quality Measures

9. Tractor or heavy equipment operations shall not be conducted on slopes greater than 50%.
10. Tractor road construction is often not required during fuel break implementation. If necessary, tractor roads shall not be constructed on slopes greater than 40%.
11. New road construction or reconstruction is often not required during fuel break implementation. If necessary, new road construction or reconstruction should not be beyond 600 feet. Any road construction should be kept to a minimum and the appropriate agencies may be notified prior to any new road construction.
12. Tractor or heavy equipment operations should not be conducted on known slides or unstable areas.
13. Heavy equipment operations should not be conducted within the standard width of a Watercourse and Lake Protection Zone (WLPZ; see Table 1), except for maintenance of roads and drainage facilities or structures.
14. Fuel Break activities should not involve watercourse crossings. If watercourse crossings are required, necessary agencies will be notified prior to construction. Crossings will be designed to meet the 100-year flood flow and associated debris standards in the Act and Rules.

Table 1: The WLPZ means a strip of land, along both sides of a watercourse or around the circumference of a lake or spring, where additional practices should be undertaken for protection of the quality and beneficial uses of water, fish, and riparian wildlife habitat, other forest resources, and for controlling erosion. The following table may be used to identify the standard width of a WLPZ:

Procedures for Determining Watercourse and Lake Protection Zone Widths				
<u>Water Class</u>	<u>Class I</u>	<u>Class II</u>	<u>Class III</u>	<u>Class IV</u>
Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.	1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for non-fish aquatic species. 3) Excludes Class III waters that are tributary to Class I waters.	No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high-water flow conditions after completion of tree operations.	Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.
Protection Width	150 feet	100 feet	25 feet < 30% slope, 50 Feet >30% slope	25 feet < 30% slope, 50 Feet >30% slope

15. Fuel break construction within the standard width of a WLPZ should be designed to avoid impacts to riparian and aquatic function. Class I protection zones involving anadromous salmonid habitat and/or where waterbodies are Clean Water Act section 303(d) listed (impaired) for temperature/sediment should comply with the standard Act and Rules WLPZ protections. Dead or dying trees within a WLPZ should be marked by, or under the supervision of, a RPF prior to tree removal operations. Removal of vegetation within a WLPZ should be limited to situations where it is necessary to create and maintain fuel break function and effectiveness. A CAL FIRE RPF or their designee will determine the necessity for removal of vegetation from within a WLPZ and practices to reduce impacts to biological resources.

16. Shade-producing canopy within WLPZ should be retained where waterbodies are 303(d) listed for temperature.

17. Disturbance and/or creation of bare areas will be avoided or designed to avoid sediment discharge to waterbodies.

18. Avoid removing vegetation from a stream or stockpiling it in the stream bed or on its bank.
19. Avoid removing living native vegetation from the channel, bed, or banks of a stream.
20. If water drafting becomes necessary, drafting sites should be planned to avoid adverse effects to special status aquatic species and associated habitat, in-stream flows, and depletion of pool habitat. Relevant agencies will be notified prior to any water drafting.
21. De-watering streams or other aquatic features should be avoided. No work shall occur within a flowing stream. If there is an unavoidable need, agencies will be consulted prior to any de-watering activities to develop site specific protection measures.
22. During fuel break operations, fuel and hazardous materials will be kept at a sufficient distance from watercourses to provide protection from accidental leaks or spills.
23. Should operations extend into the winter period, as defined by the Act and Rules, limitations on operations related to using saturated roads, stabilizing erodible soils, and installing erosion control measures will be followed.
24. Equipment maintenance will occur outside the WLPZ (according to prescribed protection widths; Table 1).
25. Should pile burning occur, it will not be conducted within 25' of a WLPZ.

Erosion Control and Bank Stabilization

26. Avoid placing spoil on the stream side slope where it could enter the stream, or over vegetation.
27. Locate permanent spoil storage sites away from a stream/lake, to avoid spoil washing back into a stream/lake, and away from where it should cover aquatic or riparian vegetation, intact upland vegetation, and areas documented with sensitive species.

Chemical Treatment Measures

28. Herbicide will be used sparingly. Should herbicides be used, they will be applied by a licensed applicator in accordance with all applicable state, federal, and local regulations.
29. Herbicide mixing sites should only be located in areas devoid of vegetation, and where there is no potential of a spill reaching a vegetated area or a stream.

Invasive Species Control Measures

30. Fuel break activities will be conducted to avoid introducing or spreading any invasive pests (plant or animal).

Fuel Break Design, Construction and Prescribed Fire

Fuel Break Practices and Protective Measures

A fuel break is generally wide strip of land on which vegetation has been modified so that a fire burning into it can be more readily controlled. Fuel breaks are not designed to stop fire spread, especially during periods of strong winds when fire brands can be blown across these linear features. However, fuel breaks do provide opportunities for firefighting success under less extreme fire weather conditions by providing areas of lower fireline intensities, improved firefighter access, and enhanced fireline production rates. The concept of a fuel break is that fire intensity is reduced by reducing fuel loading. In addition to reducing fire intensity, fuel breaks increase fireline construction rates, reduce the fire-retardant coverage levels required to effectively coat vegetation, and provide for points of access and travel for ground-based firefighters. The lighter fuels, often grasses, associated with fuel breaks, also provide opportunities for indirect fireline construction through backfire or burn-out operations to consume fuel ahead of the spread of the fire.

CAL FIRE commonly designs and constructs fuel breaks in a variety of vegetation types throughout the State. There are multiple objectives that a fuel break can achieve including creating strategic control points to allow firefighters to safely engage a wildfire, improving opportunities to control wildfire in the initial attack phase, and improving opportunity to control a wildfire prior to it reaching homes

or other assets at risk. In addition, certain fuel breaks can act as part of a community fuel break system to protect the community, wildlife, and other watershed values. Fuel breaks can also be used to improve ingress and egress routes along existing roads and driveways, allowing for safe civilian evacuations and emergency responder access. Despite considerable variability in fuel types there are common design, construction, and environmental protection standards that CAL FIRE may use for all fuel breaks.

Fuel Break Design Standards

31. Fuel Break Description: The purpose for protection should be identified and a brief explanation of what is being protected, why it is being protected, and where the protection is specifically needed should be included.
32. Fuel Break Width and Length: The fuel break width and length should be sufficient to reduce fire spread and intensity. Width on level ground will vary based on fuel types; i.e., short widths are generally required in grasses (approx. 150 feet) and longer widths are required on forested sites (approx. 300 feet). Variation in width is largely determined by vegetation type, slope, access, and other site-specific needs and objectives. Fuel break length will generally be designed to match the length of the ignition source to the extent feasible, such as along a road or highway.
33. Fuel Break Connectivity: Fuel breaks are designed to connect with natural or artificial fire barriers such as large rock outcrops, wet meadows, roads, or areas with low fuel loads or flammability. When possible, fuel breaks favor locations that are linked to road systems to facilitate firefighting access.

Fuel Break Construction

34. Standard Fuel Treatments: To diminish the risk and/or rate of fire spread across the fuel break, specific techniques are used suitable to the material being treated (e.g., mowing, prescribed grazing, pruning, vegetation removal, chipping, prescribed burning, and masticating). Treatments focus on dead, diseased, and dying trees before any healthy trees are removed. When healthy trees are removed, the focus is on smaller diameter trees and trees that will help prevent fire from spreading from

the forest floor into the tree canopy. Large diameter trees may be removed to achieve desired spacing between trees. Large diameter trees with unique structural features that do not pose a safety hazard are often retained to support and promote wildlife species and habitat.

35. Dead Vegetation: Generally, all downed dead trees and shrubs are removed if they are solid (not rotten) and are not yet embedded into the ground. Downed trees that are embedded into soil and which cannot be removed without soil disturbance are left in place.
36. Fuel Break Aesthetics: When possible, fuel breaks are blended into the surrounding environment. This is accomplished by feathering the edges of the fuel break into the adjacent areas for aesthetic purposes.
37. Equipment Use: Soils, site factors, and timing of application should be suitable for any ground-based equipment utilized for creating a fuel break to avoid excessive compaction, rutting, or damage to the soil surface layer. Equipment is used on the contour where feasible. For safety purposes and to protect site resources, treatment methods involving equipment are generally not applied on slopes exceeding 50 percent
38. Maintenance: Future regrowth of natural or planted vegetation is often controlled by pruning, mowing, or other techniques to maintain the specified reduced fuel load. Maintenance activities are generally less costly and time consuming than initial treatment activities.

Prescribed Fire Practices and Protection Measures

CAL FIRE uses a variety of standard practices and protections measure to develop and implement prescribed fire projects. The following represent commonly used prescribed fire practices and protection measures:

39. Burn Plan Development: A burn plan is developed that includes a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation that predicts fire behavior, calculates consumption of fuels, tree mortality, predicted emissions, GHG emissions, and soil heating. The results of the analysis are included with the burn plan. The burn plan is created with input from the appropriate local CAL FIRE Unit personnel.

40. Burn Prescription: The prescribed fire burn prescription is designed to initiate a surface fire of sufficient intensity that will only consume surface and ladder fuels while protecting soil resources from direct soil heating impacts.
41. Ignition will occur outside of the WLPZ (according to prescribed protection widths; Table 1).
42. Where feasible, utilize existing roads, trails, and natural fuel breaks for fire lines.
43. Air Quality: Prescribed fire should comply with all local, state, and federal air quality regulations and ordinances. The local Air Pollution Control District or Air Quality Management District will be contacted to determine local requirements.
44. Standard Public Notifications: Approximately two weeks prior to the commencement of prescribed burning operations, the project coordinator will: 1) post signs along the closest major road way to the area describing the activity, timing, and requesting for smoke sensitive persons in the area to contact the project coordinator; 2) publish a public interest notification in a local newspapers or other widely distributed media source describing the activity, timing, and requesting for smoke sensitive persons in the area to contact the local CAL FIRE Unit; and 3) develop a list of smoke sensitive persons in the area and contact them prior to burning.
45. Burn Plan Communications: Prior to the start of operations, CAL FIRE personnel should meet with the project coordinator onsite to discuss resource protection measures. Additionally, the project coordinator should specify the resource protection measures and details of the burn plan in the incident action plan and should attend the pre-operation briefing to provide further information.

Chaparral

The historical fire regime of chaparral ecosystems of California is significantly different from other vegetative ecosystems in either northern California or southern California. Generally, the ecosystems do not receive the same amount of precipitation or cold months as in other areas of the state.

46. **Standard Fuel Treatments:** To diminish the risk and/or rate of fire spread across the fuel break, specific techniques are used suitable to the material being treated (e.g., mowing, prescribed grazing, pruning, vegetation removal, chipping, prescribed burning, and masticating). Treatments focus on removing dead, diseased, dying, decadent, or dense trees and chaparral species. When healthy small trees and chaparral species are removed, the focus is on spacing that will help prevent fire from spreading from canopy to canopy. Removal also benefits by increasing growing capacity with an increase in available nutrients, water, and sunlight. Healthier remaining vegetation allows an increased resistance to insect, pathogen and disease outbreaks. Large diameter trees and chaparral plants with unique structural features and located on the outer edges of the fuel break will be retained to support and promote wildlife species and habitat.

47. **Vegetation Treatment:** Generally, all downed dead trees and shrubs are removed if they are solid (not rotten) and are not yet embedded into the ground. Downed trees and chaparral that are embedded into soil and which cannot be removed without soil disturbance are left in place. Chipping and masticating of dead material is often used as an alternative to removal. Attention will be given to decreasing horizontal continuity of residual vegetation. By chipping and masticating vegetation, root systems are left in place which helps maintain slope stability and mimics the historic fire regime of the area. Chaparral typically burns in stand-replacing fire events, which remove the above-ground vegetation; however, the below-ground material is generally intact, allowing for sprouting and recolonization of the stand immediately following the fire (perturbance) event.

48. Fuel Break Edges: When possible, chaparral fuel breaks are blended into the surrounding environment. This is accomplished by feathering the edges of the fuel break into the adjacent protected areas for aesthetic purposes. The edges of the fuel break will be treated to prepare the fuels outside the fuel break for future use.
49. Chaparral Over Story Canopy Retention: Fuel breaks in the chaparral will retain sparse canopy that varies by width of the fuel break. Larger width fuel breaks will generally have more unique or large chaparral specimens retained in the outer edges. Below is a general guide for canopy retention in chaparral fuel breaks. Distances are from the centerline of the fuel break. The retained canopies will be estimated in the field.
- a. 0-150 feet: retain 0% or more of over story canopy
 - b. 150-250 feet: retain 5% or more of distributed over story canopy
 - Greater than 250 feet: retain 10% or more of distributed over story canopy
50. Equipment Use: Soils, site factors, and timing of application should be suitable for any ground-based equipment utilized for creating a fuel break to avoid excessive compaction, rutting, or damage to the soil surface layer. Equipment is used on the contour where feasible. For safety purposes and to protect site resources, treatment methods involving equipment are generally not applied on slopes exceeding 50 percent.
51. Maintenance: Future regrowth of natural or planted vegetation is often controlled by pruning, removal, mowing, or other techniques to maintain the specified reduced fuel load.
52. Be designed to prevent vegetation type conversion, specifically in sensitive habitats such as chaparral and coastal sage-scrub.
53. Tractor or heavy equipment operations should not be conducted on slopes greater than 50%.
54. Tractor or heavy equipment operations should not be conducted on known slides or unstable areas.

55. Fuel break construction within the standard width of a WLPZ is designed to avoid impacts to riparian and aquatic function. Dead or dying trees within a WLPZ should be marked by, or under the supervision of, a Registered Professional Forester prior to tree removal operations. Removal of vegetation within a WLPZ should be limited to situations where it is necessary to create and maintain fuel break function and effectiveness. A RPF or their designee will determine the necessity for removal of vegetation from within a WLPZ.

Implementation Monitoring

Maintenance

CAL FIRE will continue to work with local stakeholders and cooperators through the normal Fire Planning process to ensure maintenance of fuels breaks. This will involve a combination of local planning and prioritization, identification of funding options and project level development, coordination and implementation.

Maintenance that involves chemical treatments will require consultation with a licensed pesticide control advisor (PCA). No chemical treatments should occur within the WLPZ.

Monitoring

CAL FIRE will ensure implementation monitoring occurs to determine whether the required BMPs were applied to the project as specified and planned. Implementation monitoring tracks whether a given practice was successfully applied from project planning through completion. Its purpose is to ensure that proposed work was successfully completed as designed.

The monitoring checklist below will be used to document field-related BMP implementation as follows:

- E (Exceeds BMP standards)
- A (Acceptable)
- D (Departure from BMP standards)
- N/A (Not Applicable)

Main implementation monitoring categories for the checklist will include water quality-related BMPs, wildlife-related BMPs, cultural resource-related BMPs, and vegetation/slash treatment-related BMPs:

Observer(s):	Project #	Date:
Implementation Ratings: E (exceeds BMP standards), A (acceptable), D (departure from BMP standards), N/A (not applicable)		
BMP Description	Rating	Comments
Water Quality-Related		
No tractor use on slopes >50%		
Tractor roads not constructed on slopes >40%		
New road construction or reconstruction ≤ 600 ft.		
No tractor use not on unstable areas or known slides		
Heavy equipment use limited to areas outside of FPR WLPZs where possible, and designed to avoid riparian impacts		
Fire breaks, roads, skid trails capable of generating runoff and discharging to watercourse drained with waterbars		
During dry conditions, native surface roads wetted/treated for dust		
WLPZ vegetation removal limited to areas necessary to create or maintain fuel break function and effectiveness		
Heavy equipment use on slope contours where feasible		
Wildlife-Related		
Known sites of rare, threatened, or endangered plants or animals not disturbed, threatened, or damaged during construction		
Non-disturbance buffers established around nests discovered during surveys conducted, if vegetation to be removed Feb 1-Aug 31		
Living vegetation removal from channel, bed, or banks avoided		
Water drafting limited to sites approved by agencies		
No de-watering of watercourse channels during construction work		
Equipment fueling and hazardous material use done outside of WLPZs		
Cultural Resources-Related		
Fuel break construction and other heavy equipment use avoids disturbance of significant archaeological or historical sites		
Fuel/Slash Treatment-Related		
Slash treatment designed to reduce fire hazard and potential insect attack in fuel break areas		

Appendix. Additional Best Management Practices That May be Applicable

This section serves as a source of additional environmental protection actions that CAL FIRE may take to protect sensitive resources. This section may be used by CAL FIRE when resources not identified through the pre-defined environmental compliance process are encountered in the field, or additional protection is desired. The purpose is to provide examples to the public and a guide to the field of potential best management practices that may be implemented during the project in consultation with other agencies. These BMPs are in addition to those developed in the document. They were developed in consultation with regional staff at the Department of Fish and Wildlife and the Regional Water Quality Control Boards.

This library is organized into three sections: General Best Management Practice Recommendations, contains BMPs that may apply to projects and habitat types depending on the actual project description; Erosion Control; Best Management Practice Recommendations by Activity Type are tailored to each project activity type that may occur across all 35 projects, independent of habitat type. Field review of the specific project sites by CAL FIRE Registered Professional Foresters and staff resource professionals will determine the need for additional best management practices. The following list is not intended to be all inclusive and additional site specific BMPs may be developed or omitted on a project by project basis as necessary.

1. General Best Management Practice Recommendations

Upland Habitat Protection

To avoid impacts to nesting birds and/or raptors:

Remove all temporary flagging, fencing, trash, debris, and/or barriers from the project site upon completion of project activities.

- Habitat elements (nest trees, downed logs and woody debris, cavities and tree hollows, snags, large dead branches, etc.) that provide valuable habitat may be identified and retained where no immediate risk to infrastructure exists.

Aquatic Habitat Protection

- Avoid removing vegetation from the stream or stockpiling it in the stream bed or on its bank. The sites selected on which to push this material out of the stream should be selected based upon least damaging impacts to resources including sensitive uplands resources. Retain downed woody debris on upland slopes to hold soils.
- Avoid removing living native vegetation from the channel, bed, or banks of the stream.
- If water drafting becomes a necessary component of the proposed subsequent activity, drafting sites should be planned to avoid adverse effects to special status aquatic species and associated habitat, in-stream flows, and depletion of pool habitat. Fit pump intakes placed in stream/lake water with (1/8) inch or smaller mesh screens for January 1, through March 30, and (1/4) inch or small mesh screens thereafter.
- De-watering streams or other aquatic features have the potential for significant impacts to sensitive biological resources that may result in persistent impacts to threatened and endangered species and should not be conducted unless deemed necessary for project implementation. This decision may be made in consultation with CDFW and the relevant RWQCB. Both agencies will provide timely site-specific recommendations and possible alternatives during these consultations.
- When work in a flowing stream is unavoidable, divert the entire stream flow around the work area by a barrier, temporary culvert, new channel, or other means. Begin construction of the barrier and/or the new channel in the downstream area and continue in an upstream direction and divert the flow only when construction of the diversion is completed. Channel bank or barrier construction should be adequate to prevent seepage into or from the work area. Construct diversion berms of onsite alluvium of low silt content, inflatable dams, sand bags, or other similar materials. Avoid making channel banks or barriers of earth or other substances subject to erosion unless first enclosed by sheet piling, rock rip-rap, or other protective material. Remove the enclosure and the supportive material when the work is completed; normally proceed from downstream in an upstream direction.
- Divert flows in a manner that prevents pollution and/or siltation and provides flows to downstream reaches. Provide flows to downstream during all times that the natural flow would have supported aquatic life. Ensure flows are of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Restore

normal flows to the affected stream immediately upon completion of work at that location.

- Contain sediment and reduce stream turbidity when the work area(s) are rewatered. Install an appropriate sediment control device downstream of the work area to filter sediment. Recommended materials include silt fence, straw bales, or other appropriate devices to prevent sediment runoff during rewatering activities. Keep silt control in place only until the water running through the work area is clear of sediment.
- Recommend no direct ignition within the WLPZ or ELZs. However, it is acceptable for a fire to enter or back into a WLPZ's or ELZ's.
- Shade-producing canopy should be retained where waterbodies are 303(d) listed for temperature. CAL FIRE should notice the appropriate Regional Water Board prior to operations.
- Disturbance and/or creation of bare areas should be designed to avoid sediment discharge to waterbodies.
- Recommend seeking advice from the relevant RWQCB prior to operations for project activities with potential to impact waterbodies that are 303(d) listed as impaired due to sediment.
- Water drafting locations associated with surface waters should be designed to prevent overflow from transporting sediment to the waterbody.
- Water drafting locations should be designed to prevent petroleum products from entering the waterbody.
- All in-stream work, including armoring of banks using unanchored wood structures should be completed in accordance with techniques in the California Salmonid Stream Habitat Restoration Manual. The most current version of the manual is available at: <https://www.wildlife.ca.gov/Grants/FRGP/Guidance>. The placement and construction of such in-stream structures to persist when subjected to large flood events.

2. Erosion Control

- No high ground pressure vehicles should be driven through project areas when soils are wet and saturated to avoid compaction and/or damage to soil structure. Indicators of saturated soil conditions may include, but are not

limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during timber operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.

- Recommend not using heavy equipment on slopes exceeding 65 percent or on slopes greater than 50 percent where the erosion hazard rating is high or extreme.
- Angular, energy dissipating rock slope protection that is properly sized to withstand wash out during peak flows should be installed where appropriate. Only clean material such as rock riprap that is free of trash, debris and deleterious material is to be used as bank stabilization. Asphalt is not an acceptable material.
- Where applicable CDFW recommends the use of bioengineering techniques in the development of stabilization features. The channel should not be narrowed as a result of bank repairs, and features that modify the natural stream gradient (as measured on a longitudinal profile) should not be installed in the channel.
- Non-erodible materials, such as coconut fiber matting, should be used for bank stabilization. Monofilament erosion control materials can trap and kill wildlife.
- Recommend avoid discharging silty/turbid water from dewatering or other activities into the stream. Discharged water should be settled, filtered, or otherwise treated prior to release.
- Recommend avoid placing spoil on the stream side slope where it could enter the stream, or over vegetation.
- Locate permanent spoil storage sites away from a stream/lake, to avoid spoil washing back into a stream/lake, and away from where it should cover aquatic or riparian vegetation, intact upland vegetation, and areas documented with sensitive species.

Construction of Roads and Crossings

- The following crossings type options are recommended:

Use	Presence of fish or water	Type options
Permanent	Fish Bearing	bridge, plate arch, CMP, rocked ford
	Wet during operations	CMP, vented ford
	Dry during operations	rocked ford
Seasonal	Fish Bearing	bridge, plate arch, CMP, rocked ford
	Wet during operations	bridge, CMP, Vented ford
	Dry during operations	rocked ford
Temporary	Fish Bearing	bridge, CMP with rock fill, Spittler, rocked ford
	Wet during operations	bridge, CMP with rock fill, Spittler
	Dry during operations	rocked ford, Spittler
Tractor/Skid	Fish Bearing	bridge, CMP with rock fill, Spittler
	Wet during operations	Bridge, CMP with rock fill, Spittler, Humboldt
	Dry during operations	rocked ford, Spittler, Humboldt, dipped
Seep/wet area	-	French drain, burrito, rocked ford, CMP

Definitions:

CMP = Corrugated metal pipe.

Plate arch = Half metal pipe with concrete footings and natural channel inside.

Vented ford = "Vented ford", Armored ford with CMP to carry low flows.

Entire ford is built to carry 100-year flows over top.

Spittler = Log fill crossing topped with straw layer and native soil for running surface; may include CMP for flow.

Humboldt = Log fill with native soil for running surface.

Dipped = Native dirt fill, use then dip/blade out fill when done.

Burrito = Rock fill surrounded by filter fabric under road base, burrito shape.

Corduoy = Single layer of logs on ground, can have filter fabric layer under logs.

French drain = Perforated pipe surrounded by rock and filter fabric.

- Where new roads are installed, construction should not exceed 600' in length per project. Operational standards provided in the Act and Rules for Forest Fire Prevention Exemption road construction (Title 14 CCR 1038.3) will apply.
- Recommend avoiding work in perennial watercourses during rain events and high flows to protect salmonids and special-status amphibians. Follow the Act

and Rules (or similar design standard, e.g., Pacific Watershed Associates) for rural road sediment control. Recommend avoid work in the winter season.

- When operations require moving of equipment across a flowing stream, conduct such operations without increasing stream turbidity. For repeated crossings, install a bridge, culvert, or rock-fill crossing. Crossings should meet the 100-year flood flow and associated debris standard in the Act and Rules. Crossing installation should not occur during the winter period as defined in the Act and Rules.
- Culverts should be properly aligned within the channel and otherwise engineered, installed and maintained, to resist washout and erosion of the stream bed, stream banks and/or fill; embedded below the natural channel grade to facilitate substrate deposition on the culvert floor; and passable to fish. Culvert backfill material should be free of rocks, limbs or other debris that could dent the pipe or allow water to seep around the pipe.
- It is recommended that culvert fill length, width, and height dimensions not exceed those of the original design/installation or the original naturally occurring topography, contour, and elevation.
- It is recommended that fill within a watercourse be limited to the minimal amount necessary to accomplish the project activities.
- Move structures and associated materials not designed to withstand high water flows to areas above high water before such flows occur.
- Recommend avoid impairing water flow (velocity and low flow channel width) when installing bridges, culverts, or other structures. Place bottoms of temporary culverts at or below stream channel grade, and bottoms of permanent culvert below stream channel grade.
- Size storm drains lines/culverts adequately to carry peak storm flows for the drainage to one outfall structure. Properly align the storm drain lines/culverts and the outfall structure within the stream and otherwise engineer and install to assure resistance to washout, and to erosion of the stream bed, stream banks and/or fill. Dissipate water velocity at the outfall, to reduce erosion.
- Bridges are the preferred crossing type for fish-bearing Class I watercourses. Where bridges are used, they should be constructed as clear span bridges without abutment fills below the ordinary bankfull stage. Abutments within the bankfull stage should be armored with rock rip-rap sized to withstand displacement by expected flows. Bridges should be set high enough to pass the entire 100-year peak flow and floating debris. Log stringer bridges may

be used, but all surfacing material should be clean rock if the surface material is not otherwise planked, plated, or paved. Bridge abutments and slope protection should not constrict the channel.

- Project design may include use flatcars, log stringers, plate, or other clear-span designs as temporary bridges. Temporary bridges should be removed by the end of the work period in each year. Fills for abutments below bankfull stage should be log and/or rock. Log stringer bridges should be surfaced with filter fabric or straw, under a road surface layer of rock, to prevent surface material from entering channel during use.
- Bottomless arch culverts or embedded culvert design methods (i.e., stream simulation or active channel design) in accordance with the “Culvert Criteria for Fish Passage” found as Appendix IX-A of the California Salmonid Stream Habitat Restoration Manual (<https://www.wildlife.ca.gov/Grants/FRGP/Guidance>) are recommended. Bottomless culverts meeting the culvert width criteria in the manual and culvert footings should be deep enough to avoid scour exposure.
- Inspect all crossings appurtenant to proposed operations at least once after October 15th following the first storm event producing bankfull stage prior to completion of operations. The inspection should ensure that crossings are functioning as designed, road approaches hydrologically disconnect the road prism from waters, and the fine sediment present on road approach surfaces is prevented from delivery to streams.
- Culverts designed to pass the estimated 100-year flood flow, including debris and sediment loads, without overtopping or diverting. Culvert sizing factors should include transportation of bedload and the abundance and size of woody debris likely to be introduced to the stream upstream of the culvert crossing.
- Culverts and their outfall structures should be aligned with the stream channel, as wide as or wider than the channel width, and should be placed with the bottom set at or slightly below the natural streambed elevation to the maximum extent feasible.
- If culverts cannot or will not be set to grade, they should have downspouts and/or energy dissipators below the outfall as needed to effectively control erosion. If half-round downspouts (flumes) are used, they should be placed in line with the culvert, sized larger than the culvert and of sufficient size to accommodate entire anticipated stream flow. Downspouts should be securely attached to the culvert and staked or otherwise anchored to the fill slope.

- Culverts should extend lengthwise completely beyond the toe of fill.
- Sediment depositions in the stream channels at the inlets of the culvert should be excavated and disposed of at a location and in a manner where sediment should not enter into the waters of the State.
- During crossing removal, recreate the natural channel grade and orientation, with a channel bed that is as wide as or slightly wider than the original watercourse.

Pollution

- To the maximum extent feasible confine parking, material storage areas, and equipment storage outside of the river or stream channel and on previously disturbed areas.
- Prevent debris, soil, silt, sand, bark, slash, sawdust, rubbish, construction waste, cement or concrete or washings thereof, asphalt, paint, oil or other petroleum products or any other substances which could be hazardous to aquatic life, or other organic or earthen material from any logging, construction, or other associated project related activity from contaminating the soil and/or entering into or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, remove any excess materials or debris from the work area. Recommend avoid depositing rubbish within 150 feet of the high-water mark of any stream or lake.
- Recommend avoid pouring cement and concrete within 150 feet of a stream if precipitation is predicted within 24-hours. Recommend avoid pouring cement in or near a flowing stream, to reduce the potential for significant adverse impacts to the stream, water, or biota.
- Check and maintain any equipment or vehicles driven and/or operated within or adjacent to the stream/lake daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.
- Position stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream/lake over drip pans. Stationary heavy equipment needs suitable containment to handle a catastrophic spill/leak. Locate clean up equipment such as extra boom, absorbent pads, skimmers, on site prior to the start of activities adjacent to the streambed or lake.

- Install necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of those structures.

Invasive Species

- Where applicable, work should begin in the non-infected area and progress towards the infected area to minimize spread of pests around the activity site.
- To reduce the spread of new invasive plants, use certified weed-free straw and mulch.

3. Activity-Specific Best Management Practice Recommendations

These project-specific BMPs are tailored by CDFW to each project activity type that may occur across all 35 projects, and independent of habitat type.

Herbicide

- Herbicides should be applied by a certified pest control applicator per the label, following all applicable laws and regulation.

Mechanical Removal

- Tractor or heavy equipment operations should not be conducted on slopes greater than 50%.
- Tractor roads should not be constructed on slopes greater than 40%.
- Tractor or heavy equipment operation should not be conducted on known slides or unstable areas.
- Heavy equipment should not be conducted within the standard WLPZs.
- Should operations extend into the winter period, as defined by the Forest Practice Act and Rules, limitations on operations related to using saturated roads, stabilizing erodible soils and installing erosion control measures may be followed.
- Equipment maintenance should occur outside the WLPZ.

Manual Thinning

- Within the standard WLPZ, only manual removal of vegetation should occur. Vegetation removal in the WLPZ should be limited and as far as possible designed to avoid impacts to riparian and aquatic function.
- Recommend no pile burning within 25 feet of a watercourse.

Inspections

- CAL FIRE may notify the relevant RWQCB prior to project implementation, mid-way through the project, and at least 7 days prior to the anticipated project completion date and while equipment is still on-site to implement any necessary mitigation measures.
- The relevant RWQCB may conduct additional inspections as conditions warrant and will report any requested management measures to CAL FIRE in a timely manner to facilitate implementation.

Maintenance

- Chemical treatments will require consultation with a licensed pesticide control advisor (PCA). No chemical treatments should occur within the watercourse protection zones.

https://www.hmbreview.com/news/fire-officials-prepare-for-next-crisis/article_1826cd6c-899e-11ea-900c-d757f7463f56.html

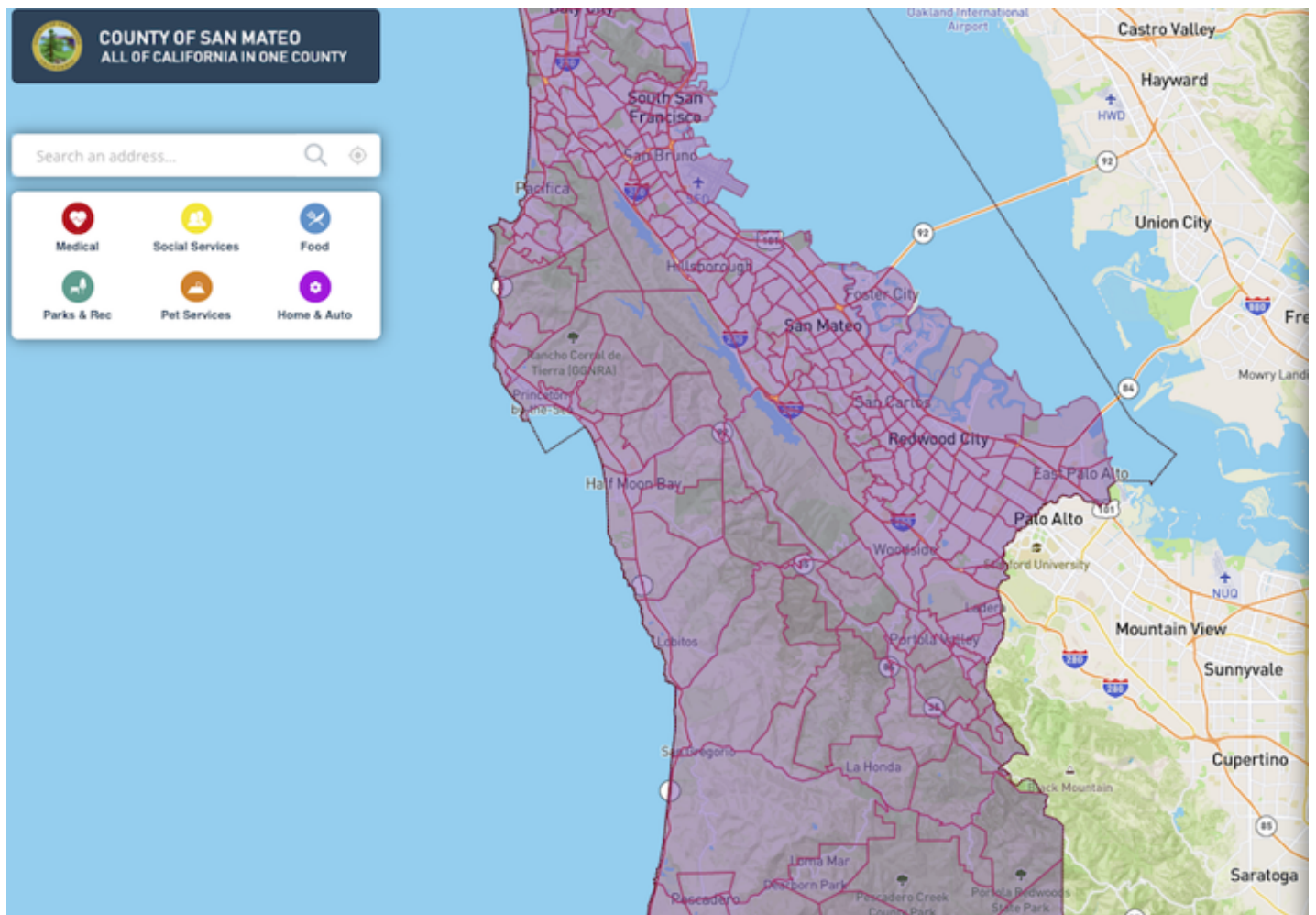
Fire officials prepare for next crisis

Dry conditions lead into wildfire season

By Libby Leyden

Apr 28, 2020

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First-responders can now coordinate evacuation routes and other aspects of emergency planning with a new online tool.

Local and state emergency responders are preparing for what could be a double whammy if a devastating wildfire or other natural disaster takes place during the COVID-19 pandemic.

Planning for wildfires, floods or earthquakes is nothing new in California, but now public safety agencies are forced to adapt preparedness and response efforts while also battling a virus.

“At a high level we’re in a precarious situation,” CalFire Division Chief Jonathan Cox said.



Fire officials say the state could be in for a bad wildfire season ahead as rainfall has been below average so far this year.

“So the big concern for us is we have dry conditions. That sets the tone for what we are looking at,” Cox said.

There have been more than 780 wildfires so far in 2020 in California, but they’ve only burned around 1,200 acres, according to the California Department of Forestry and Fire Protection.

Cox said fire departments across San Mateo County are already taking steps to prepare by hiring back seasonal firefighters, staffing wildfire engines at three locations, and conducting necessary training for staff.

“Just now we have to take into account or change the way we do our operations to deal with a pandemic,” he said.

Prior to dealing with a virus, CalFire would hold academies of about 30 people to retrain seasonal firefighters. To continue to offer training during the public health emergency, firefighters are now taught in small groups at their individual stations.

Looking ahead, Cox said officials are learning how to effectively run a large incident with hundreds of firefighters working in close proximity to extinguish a fire.



“This is all being thought about now, so when we do have the big event, plans are in place,” he said. “This is uncharted territory. More than anything, we are preparing earlier than in the past.”

As part of the planning process, Cox said officials want to have enough personal protective equipment on hand, including goggles, masks, gloves and hand sanitizer.

“We’re also looking at getting loud speakers to conduct briefings without having to have firefighters congregate,” he said.

Other steps to prepare are already being taken, such as managing overgrown vegetation that could be a wildfire risk. Currently, two fire engines are out in the field burning piles of debris and creating shaded fuel breaks.

“That work continues to go on and we have no plan to slow that down,” Cox said.

He also advised homeowners to create defensible space around their properties.

“This is still allowed under the health orders,” he said. “We can’t stress the importance of doing this enough as we go into this fire season.”



Another aspect of preparedness for wildfires is addressing evacuation planning. Earlier this year, CalFire worked with the company Zonehaven to create a mapping service that provides real-time updates on evacuations. The map divides the county into about 300 different zones and allows first responders and the public to see which areas are being evacuated.

The website recently launched and is currently being used to assist in the pandemic response by showing where medical and food services are available countywide.

“There’s been a lot of work done over the past several months on evacuation planning,” Cox said. “For the first time, law enforcement and fire have a common operating map to assist in evacuation.”

If a wildfire or other disaster on the Coastside prompts the need for evacuation or the need for an emergency shelter, Cox said CalFire would coordinate with nonprofits such as the Red Cross.

Assuming the virus is still a public health threat when a wildfire occurs, the Red Cross would facilitate screenings for people coming into the shelter and have isolation areas available for use as needed, according to Cynthia Shaw, chief communications and marketing officer for the Red Cross.

“Our goal is to provide anyone in need after a disaster with a safe place to stay where they feel comfortable and welcomed,” she said.

County officials are also creating contingency plans for the possibility of a second disaster. In addition to preparing for a fire or earthquake, Office of Emergency Services Manager Kevin Rose said he is also looking at what impact a PG&E Public Safety Shut-Off could have in the county.



“What we are doing is looking at all hazards and seeing what things we’ll need to adjust in our operations to react accordingly,” he said.

Mapping

San Mateo County is utilizing software originally designed for assisting first responders for evacuations to inform people about essential services available during the COVID-19 pandemic. To access the site visit community.zonehaven.com.

https://www.hmbreview.com/news/reducing-fire-risk-at-quarry-park-requires-vigilance/article_ee20b0a4-d4cc-11e9-b82a-ebdc945b4bb7.html

Reducing fire risk at Quarry Park requires vigilance

Q&A with county arborist Dan Krug

By Ashlyn Rollins

Sep 11, 2019

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San Mateo County parks staff has been clearing around trails through Quarry Park in an effort to make the park less susceptible to ruinous wildfire. Photo courtesy Carla Schoof

A fuel reduction project in Quarry Park in El Granada started about a month ago, so we asked San Mateo County Parks Department arborist Dan Krug to answer some common questions about the project. (These answers have been lightly edited for clarity.)

Review: How long before the project needs to be repeated?

Krug: It's kind of difficult to put a strict timeline on that. It depends on how aggressively the treated vegetation re-sprouts. Blue gum eucalyptus, which is the primary target for this fuel reduction treatment, sprouts very readily from stumps. We're unsure how aggressively these trees will respond. ... It could be five years. It could be 10 years. For certain segments that get more sun exposure, it could be sooner than that.



Review: In terms of routine maintenance, how often does the park need fuel reduction work?

Krug: We're going to have to approach Quarry Park with a more active fuel reduction management and maintenance. We do trail brushing regularly through the park. That pretty much sticks to a couple of feet off to the sides of the trails. Now that we have broader areas being cleared along the trails, it'll be easier for us to maintain it with the equipment we have in the department.

It has a lot to do with budget, time, resources and staff. We are a limited staff agency. We do our best.

Review: Is there extra work being done near houses that border Quarry Park?

Krug: The idea behind focusing on the trails is to break Quarry Park up into more manageable sections in the event that there is wildfire. Quarry Park's trail system is interesting in that it's somewhat like a spider web, with a central hub and external network that radiates out, that provides a more easily managed segmentation for treatment areas. CalFire came up with the plan to work in Quarry Park as part of the governor's emergency directive.

There are some areas that will be focused on treatment near homes, specifically in the southern portion of the park near Coronado Avenue. ... Eventually treatment will get behind homes in El Granada. The reason for that is those homes are upslope from the rest of the park. Generally speaking, fires move uphill depending on the severity of winds.

In theory, those homes would be more at risk, which is why the original fuel break was put in 10 or 12 years ago. That area will ideally be re-treated or have shaded fuel break installed from the existing fuel break.



Review: How will this project help emergency vehicle access?

Krug: There are the main trails that run from the main parking lot up to the quarry floor, up and around.

These are pretty well maintained by parks staff and are wide enough to accommodate the most recent fire engines ... But there are a number of secondary trails that run through the park that are essentially single track trails that can fit maybe two people walking side by side. Vehicle access is not possible.

Review: How can the community get involved?

Krug: We have friends groups in other parks that set up weed days and work with parks staff to develop those kinds of programs. ... The possibility is there, but there has to be interest from the community — and consistent interest.

Review: Is there anything else you want people to know?

Krug: Be respectful of trail closures.



Work is getting done through the park. You don't necessarily hear the noise from the machines until you're right up on it. The machines have the capacity to throw debris up to 200 feet. It is a dangerous situation to be walking through those areas.”

https://www.hmbreview.com/news/new-state-report-highlights-coastside-wildfire-risk/article_5c202252-45c5-11e9-b887-abeb3678b826.html

New state report highlights Coastside wildfire risk

CalFire recommends immediate action

By Libby Leyden

Mar 13, 2019

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A new report from CalFire suggests Kings Mountain is among areas of the state most at risk for wildfire. Kyle Ludowitz/Review

Given California's recent history of deadly and destructive wildfires, CalFire is now outlining critical areas that need immediate management to prevent future disasters. Two of those critical areas are here on the Coastside.

In January, Gov. Gavin Newsom issued an executive order directing CalFire, in consultation with other state agencies, to reduce threats posed by wildland fires. Last month, a 28-page CalFire report called for the thinning of vegetation on about 94,000 acres of state land. The recommendation comes after the wildfires of 2017 and 2018 that killed almost 150 people, destroyed countless homes and businesses, and caused air quality problems through California.

“Millions of acres are in need of treatment, and this work, once completed, must be repeated over the years ... CalFire identified priority fuel reduction projects that can be implemented almost immediately to protect communities vulnerable to wildfire,” the report stated.



In all, 35 priority fuel reduction projects were identified, including Kings Mountain Road, west of Woodside, and El Granada’s Quarry Park. Both are indicated as high wildfire risks with vulnerable populations adding urgency to the risk.

The proposal for the 70-acre Kings Mountain Road project is to create a “shaded fuel break” for 100 feet on each side of the road. The work is limited to clearing along the roadways, not the forested areas. A misprint in the report initially referenced 467 acres, according to CalFire Division Chief Rich Sampson.

“With Kings Mountain Road, it is one lane each way, a country road. It’s like driving through a tunnel of vegetation,” Sampson said.

Shaded fuel breaks are intended to reduce fire speed and severity but do not stop the wildfire, experts say. “A shaded fuel break is where you remove the dead material underneath and thin out the brush,” Sampson said. “It also helps keep the temperature lower and makes the fire easier to control.”

It's a way to separate groups of structures from vegetation and break up large expanses of flammable fuel into smaller sections. The process removes more flammable vegetation and leaves the majority of fire-tolerant tree species in place.

For the 250-acre project at Quarry Park, the aim is to cut back a major stand of eucalyptus trees.

"With El Granada, it is a little bit different. There have been small fires before, and it is prone to a large wind event," Sampson said.



The estimated cost of the two projects is \$450,000, according to Sampson.

In the past, many Coastside residents took comfort from the fog, which dampened the landscape and kept temperatures down. But those days may be over.

"Right now, we are not getting fog like we used to and we are still suffering from the drought from the last decade," Sampson said, noting recent climate trends.

The goal is to have all 35 projects completed within 12 months, if the plan is approved by Newsom.

"This year has been a little different with the rain allowing our fine fuels to grow fast," Sampson said. "That is why these projects were selected as priorities."

https://www.hmbreview.com/news/coastsiders-report-being-dropped-from-insurance-due-to-wildfire-risk/article_72831ed4-1c5a-11ea-93fe-47a4f139bba7.html

Coastsiders report being dropped from insurance due to wildfire risk

More than 7,000 in county aren't renewed in 4 years

By Ashlyn Rollins-Koons and Libby Leyden

Dec 11, 2019

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Many people living in the path of potential wildfires in California are getting notices from their insurance companies that their policies won't be renewed. Kyle Ludowitz / Review

Another fire season passed without a catastrophic event on the Coastside, yet some in the forested regions of San Mateo County report being dropped by their insurance companies due to the relatively high risk of liability.

Homeowners in places such as Kings Mountain, South Skyline, Woodside and other areas are banding together with neighbors to make their houses as fire-resistant as possible. That apparently hasn't stopped insurance agencies from sending out nonrenewals without conducting any inspection.

These residents are facing fewer and more expensive options as a consequence. In San Mateo County, the California Department of Insurance has reported that more than 7,000 customers have received nonrenewal notices from their insurance companies from 2015 to 2018, although not all of these incidents are related to fire risk.



Woodside resident Bob Falkenberg's homeowners policy with American International Group was due to renew on Sept. 1, but he was shocked when he received a nonrenewal.

"We have all sorts of fire protection," he said. "... I was pretty surprised with AIG, especially after all these years, coming back and saying they were not going to renew."

His broker could only find one other company that would insure his home, and, although he didn't want to share how much the policy now costs, Falkenberg said it's about one-third more expensive.

“If insurance rates go up, values go down,” Falkenberg said. “Property taxes go down. There’s all sorts of potential impacts for community disruption if this were to continue. Who’s going to want to buy a house if they hear what kind of insurance they have to pay and it’s kind of outrageous?”

Insurance broker Rob O’Neill, who spoke to a group of Kings Mountain homeowners last month, explained there are only three options when it comes to fire coverage. There are admitted carriers, nonadmitted carriers and the California FAIR Plan.

Admitted carriers are backed and regulated by the state Insurance Department. Nonadmitted carriers are not backed by state funds and often are more flexible and expensive. O’Neill explained these plans can run in the tens of thousands of dollars.

Pat O’Coffey, a certified Home Fire Protection inspector and president of the La Honda Fire Brigade, turned to a nonadmitted carrier. It now costs her \$19,000 a year for homeowners insurance after Allstate sent a nonrenewal letter in June.



“We’ve done everything they’ve told us we need to do to protect our home,” O’Coffey said. Her efforts have included creating 100 to 300 feet of defensible space, fire-resistant roofing, sealed vents, and having 50,000 gallons of water available.

“Actually, if there was a wildland fire up here I think I’d be safer inside my home than I would be trying to evacuate,” she said. “I’m that confident in that ability to withstand a major wildland fire.”

The only other option is the FAIR Plan, which O’Coffey said didn’t provide enough coverage for her home. It only provides wildfire coverage, forcing homeowners to find supplemental plans for flood, theft and earthquake damage. O’Neill said there is also a \$1.5 million coverage limit, which often isn’t enough. Next year, the limit will increase to \$3 million. The California Department of Insurance reported that almost 260 new FAIR Plan policies have been created in the past four years.

“That will be a lifesaver,” he said. “There’s many homes in the Kings Mountain area that could go past \$1.5 million in coverage.”

When Frances Mann-Craik received her nonrenewal letter from AAA for her South Skyline home in August, she explored using the California FAIR Plan. She said it would cost \$8,000 a year for fire coverage alone, nearly 30 percent more than what she was paying.

Besides the logistical challenges of finding new coverage, she said she felt a “crushing betrayal” after being denied coverage from a company she’s been paying for 50 years.

“I was a member,” she said. “I was part of a family. They would take care of me when times get tough. Times got tough, and I was kicked to the road.”



Trouble finding insurance isn’t only a mountain phenomenon. El Granada resident Graham Wood received notice last fall from Nationwide he would need to make certain adjustments to his home to continue receiving coverage.

“It seemed to me that, although Nationwide refuses to confirm it, they were just deciding anywhere in California that was in a nonurban environment, anywhere that was near trees, they no longer wanted to insure,” he said.

Wood said he tried to ask Nationwide what needed to be fixed, but the company refused to give him photos of the problematic areas. He was also told he had to provide photographic evidence the problems had been resolved. Wood was able to find another insurer with some updates to his fire alarm system.

“You gotta jump through a few hoops,” he said. “... It just added inconvenience to the whole thing.”

State acts to protect homeowners

The California Department of Insurance is prohibiting insurance companies from cutting off policyholders who live in areas near recent disastrous wildfires for one year. However, San Mateo County is not covered in that area. This is the first time the department has invoked Senate Bill 824, passed last year, which provides temporary insurance protection for homeowners for one year after a state of emergency.

Exhibit 4



Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

**ZHENG PROPERTY
EL GRANADA BOULEVARD
EL GRANADA, CALIFORNIA
APN 047-151-120**

**PREPARED FOR:
WEI ZHENG
10592 BLUE BELL WAY
COCKEYSVILLE, MD 21030**

**PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CALIFORNIA 94019**

JULY 30, 2019



Sigma Prime Geosciences, Inc.
Effective Solutions

July 30, 2019

Wei Zheng
10592 Bluebell Way
Cockeysville, MD 21030

Subject: Geotechnical Report for proposed house: El Granada Blvd.,
El Granada. APN 047-151-120
Sigma Prime Job No. 19-112

Dear Mr. Zheng:

As per your request, we have performed a geotechnical study for the proposed house at El Granada Boulevard in El Granada, California. The accompanying report summarizes the results of our field study and engineering analyses, and presents geotechnical recommendations for the planned structure.

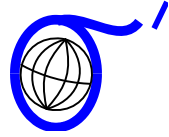
Thank you for the opportunity to work with you on this project. If you have any questions concerning our study, please call.

Yours,

Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.





**GEOTECHNICAL STUDY
EL GRANADA BOULEVARD
EL GRANADA, CALIFORNIA
APN 047-151-120**

**PREPARED FOR:
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JULY 30, 2019



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APPENDIX B - LABORATORY TESTS



1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed house at El Granada Boulevard in El Granada, California at the location shown in Figure 1. The purpose of this investigation was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations for the proposed construction.

1.1 PROJECT DESCRIPTION

A new single family home is proposed on a vacant lot. Structural loads are expected to be light, as is typical for this type of construction.

1.2 SCOPE OF WORK

The scope of work for this study was presented in our proposal dated December 18, 2018. In order to complete this project we have performed the following tasks:

- Reviewed published information on the geologic and seismic conditions in the site vicinity;
- Geologic site reconnaissance;
- Subsurface study, including 2 soil borings at the site;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed structure.



2. FINDINGS

2.1 GENERAL

The site reconnaissance and subsurface study were performed on July 11, 2019. The subsurface study consisted of drilling 2 soil borings with continuous sampling. The soil borings were both advanced to a depth of 6 feet. The approximate locations of the borings are shown in Figure 2, Site Plan. The soil boring logs are attached in Appendix A.

2.2 SITE CONDITIONS

At the time of our study, the site was undeveloped. The house site slopes gently to the west, with a steep down-slope west of the house site. The site is vegetated with grasses and dense shrubs.

2.3 REGIONAL AND LOCAL GEOLOGY

Based on Brabb, et al (1998), the site vicinity is primarily underlain by the Montara granodiorite. The unit is described as medium to coarse granitic rock, deeply weathered and highly fractured.

2.4 SITE SUBSURFACE CONDITIONS

The subsurface conditions at the site, based on the soil borings, consist of about 2 feet of stiff sandy clay over granodiorite bedrock. The clay has low to moderate plasticity, with plasticity indices of 9 and 16.

2.5 GROUNDWATER

Groundwater was not encountered in the borings and is not expected to impact the construction.

2.6 FAULTS AND SEISMICITY

The site is in an area of high seismicity, with active faults associated with the San Andreas fault system. The closest active fault to the site is the San Gregorio fault, located about 3 km to the southwest. Other faults most likely to produce significant seismic ground motions include the San Andreas, Hayward, Rodgers Creek, and Calaveras faults. Selected historical earthquakes in the area with an estimated magnitude greater than 6-1/4, are presented in Table 1 below.



**TABLE 1
HISTORICAL EARTHQUAKES**

<u>Date</u>	<u>Magnitude</u>	<u>Fault</u>	<u>Locale</u>
June 10, 1836	6.5 ¹	San Andreas	San Juan Bautista
June 1838	7.0 ²	San Andreas	Peninsula
October 8, 1865	6.3 ²	San Andreas	Santa Cruz Mountains
October 21, 1868	7.0 ²	Hayward	Berkeley Hills, San Leandro
April 18, 1906	7.9 ³	San Andreas	Golden Gate
July 1, 1911	6.6 ⁴	Calaveras	Diablo Range, East of San Jose
October 17, 1989	7.1 ⁵	San Andreas	Loma Prieta, Santa Cruz Mountains

(1) Borchardt & Topozada (1996)
(2) Topozada et al (1981)
(3) Petersen (1996)
(4) Topozada (1984)
(5) USGS (1989)

2.7 2016 CBC EARTHQUAKE DESIGN PARAMETERS

Based on the 2016 California Building Code (CBC) and our site evaluation, we recommend using Site Class Definition C (soft rock) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

**Table 2
CBC SEISMIC DESIGN PARAMETERS**

S_s	S₁	S_{MS}	S_{M1}	S_{Ds}	S_{D1}
2.001	0.759	2.401	1.063	1.601	0.709

Because the S₁ value is greater than 0.75, Seismic Design Category E is recommended, per CBC Section 1613.5.6. The values in the table above were obtained from a software program by the Structural Engineers Association of California which provides the values based on the latitude and longitude of the site and the Site Class Definition. The latitude and longitude were measured at 37.5134 and -122.4645, respectively, and were accurately obtained from Google Earth™.



3. CONCLUSIONS AND RECOMMENDATIONS

3.1 GENERAL

It is our opinion that, from a geotechnical standpoint, the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. Detailed recommendations are presented in the following sections of this report.

Because subsurface conditions may vary from those encountered at the location of our borings, and to observe that our recommendations are properly implemented, we recommend that we be retained to 1) Review the project plans for conformance with our report recommendations and 2) Observe and test the earthwork and foundation installation phases of construction.

3.2 GEOLOGIC HAZARDS

We reviewed the potential for geologic hazards to impact the site, considering the geologic setting, and the soils encountered during our investigation. The results of our review are presented below:

- Fault Rupture - The site is not located in an Alquist-Priolo special studies area or zone where fault rupture is considered likely (California Division of Mines and Geology, 1974). Therefore, active faults are not believed to exist beneath the site, and the potential for fault rupture to occur at the site is low, in our opinion.
- Ground Shaking - The site is located in an active seismic area. Moderate to large earthquakes are probable along several active faults in the greater Bay Area over a 30 to 50 year design life. Strong ground shaking should therefore be expected several times during the design life of the structure, as is typical for sites throughout the Bay Area. The improvements should be designed and constructed in accordance with current earthquake resistance standards.
- Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. In our opinion, due to the shallow bedrock, the likelihood of significant damage to the structure from differential compaction is nil.



- Liquefaction - Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. Loose silty sands below a water table do not exist at the site. Therefore, in our opinion, the likelihood of liquefaction occurring at the site is nil.
- Slope Stability – At the rear of the property, the land begins to slope down at a gradient of 50 to 60 percent. The slope continues to down to a valley about 300 feet below the house site. A review of aerial photographs of the hillsides in the area show stable slopes, except for scattered shallow soil failures that mobilized to debris flows. These types of failures are not likely to impact the proposed house site. They typically occur in narrow, steep side canyons some distance below the tops of the hillsides. The closest to the house site that a shallow slope failure might occur is about 50 feet below the property. This will not threaten the house site. Larger rotational failures are not likely due to the shallow, competent bedrock.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including topsoil, roots, vegetation, etc., should be cleared from the building area. The actual stripping depth required will depend on site usage prior to construction, and should be established by the Contractor during construction.

3.3.2 Compaction

Scarified surface soils should be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1157-78. All trench backfill should also be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density.

3.3.3 Surface Drainage

Impervious ground should slope away from the addition at 5 percent within 10 feet of the house. Pervious ground should slope away from the addition at 2 percent within 10 feet of the house. Ponding of water should not be allowed adjacent to the house.



3.4 FOUNDATIONS

We recommend that the foundation be designed as conventional continuous spread footings. Footings should have a minimum width of 12 inches, and extend at least 12 inches into the bedrock. Maximum footing depths are anticipated to be 2.5 feet.

Footings should be designed for allowable bearing pressures of 3,500 pounds per square foot for dead plus live loads, with a one-third increase allowed for total loads including wind or seismic forces.

All footings located adjacent to utility lines or other footings should bear below a 1:1 plane extended upward from the bottom edge of the utility trench or footing. All continuous footings should be reinforced with top and bottom steel to provide structural continuity and to permit spanning of local irregularities. Our representative should observe the footing excavations prior to placing reinforcing steel to see that they are founded in suitable materials and have been properly cleaned.

3.4.1 Lateral Loads

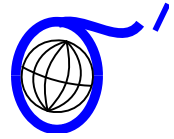
A passive pressure equivalent to that provided by a fluid weighing 300 pcf and a friction factor of 0.3 may be used to resist lateral forces and sliding against spread footing foundations. These values include a safety factor of 1.5 and may be used in combination without reduction. Passive pressures should be disregarded for the uppermost 12 inches of foundation depth, measured below the lowest adjacent finished grade, unless confined by concrete slabs or pavements. However, the pressure distribution may be computed from the ground surface.

3.4.2 Slabs-on-Grade

We recommend that slabs-on-grade be underlain by at least 4-inches of non-expansive granular fill. Where floor wetness would be detrimental, a vapor barrier, such as Stego wrap or equivalent may be used.

3.5 CONSTRUCTION OBSERVATION AND TESTING

The earthwork and foundation phases of construction should be observed and tested by us to 1) Establish that subsurface conditions are compatible with those used in the analysis and design; 2) Observe compliance with the design concepts, specifications and recommendations; and 3) Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The nature and extent of



variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate our recommendations.



4. LIMITATIONS

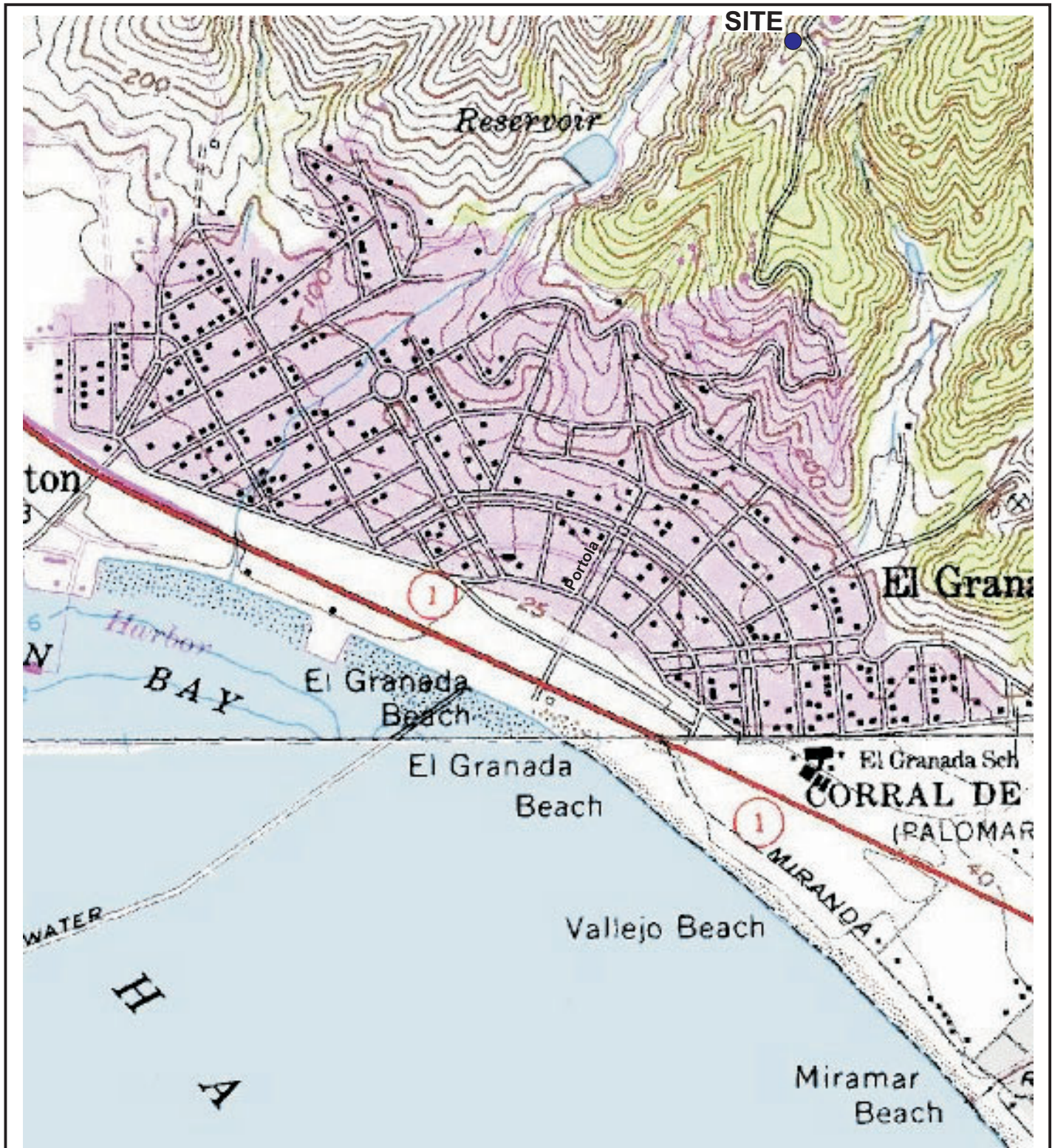
This report has been prepared for the exclusive use of the property owner for specific application in developing geotechnical design criteria, for the currently planned addition at El Granada Boulevard in El Granada, California (APN 047-151-120). We make no warranty, expressed or implied, except that our services were performed in accordance with geotechnical engineering principles generally accepted at this time and location. The report was prepared to provide engineering opinions and recommendations only. In the event that there are any changes in the nature, design or location of the project, or if any future improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless 1) The project changes are reviewed by us, and 2) The conclusions and recommendations presented in this report are modified or verified in writing.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our investigation; the currently planned improvements; review of previous reports relevant to the site conditions; and laboratory results. In addition, it should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during an investigation of this type. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.



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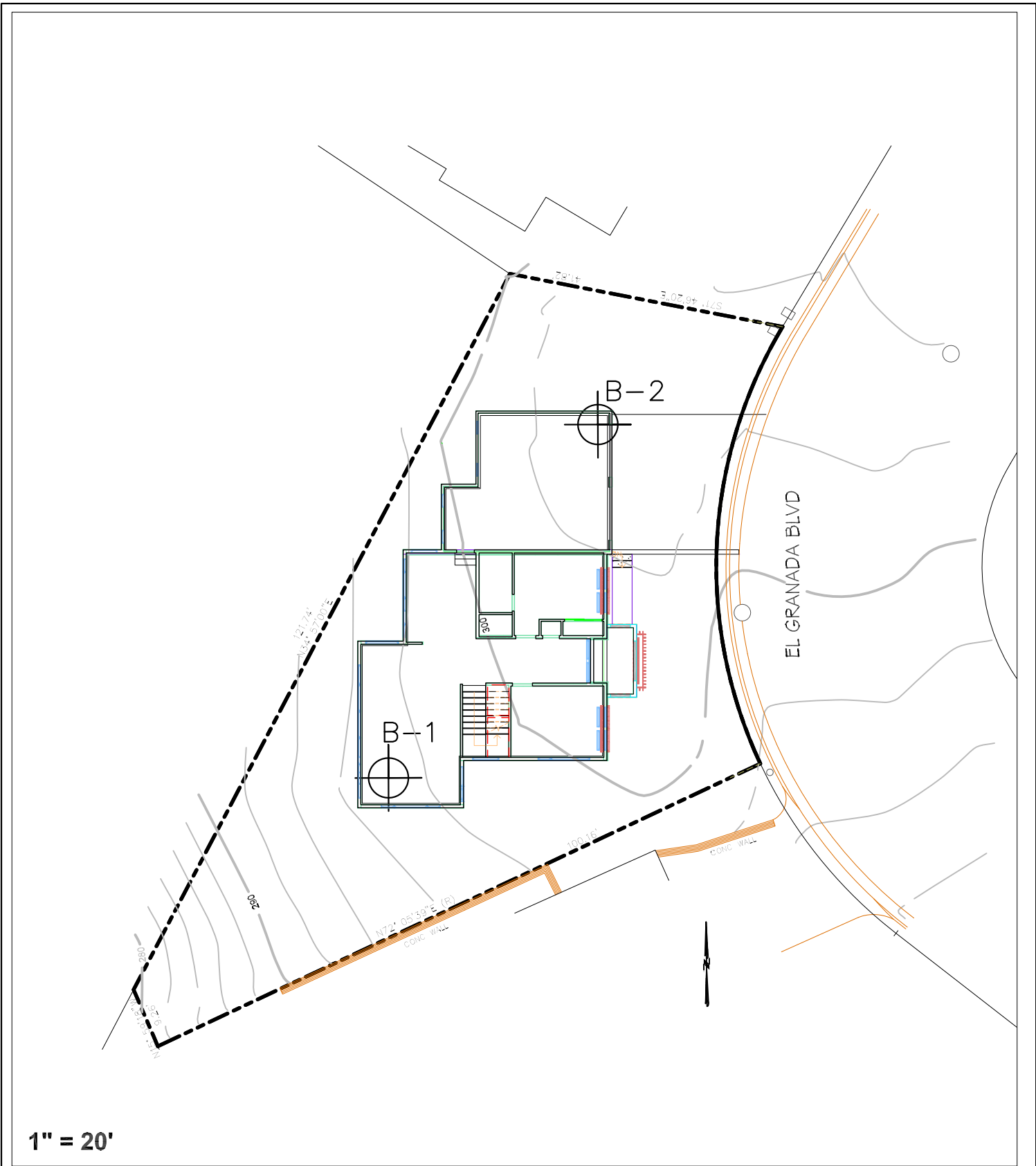


Sigma Prime Geosciences, Inc.

Figure	1
Date:	7/30/19
Job No.:	19-112


Location Map

Zheng, El Granada Blvd., El Granada



1" = 20'

Explanation

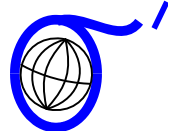
	Soil Boring Drilled 7-11-19
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Sigma Prime Geosciences, Inc.

Figure	2
Date:	7/30/19
Job No.:	19-112

Site Map
Zheng, El Granada Blvd., El Granada






APPENDIX A




FIELD INVESTIGATION

The soils encountered during drilling were logged by our representative, and samples were obtained at depths appropriate to the investigation. The samples were taken to our laboratory where they were carefully observed and classified in accordance with the Unified Soil Classification System. The logs of our borings, as well as a summary of the soil classification system, are attached.

Several tests were performed in the field during drilling. The standard penetration resistance was determined by dropping a 140-pound hammer through a 30-inch free fall, and recording the blows required to drive the 2-inch (outside diameter) sampler 24 inches. The standard penetration resistance is the number of blows required to drive a standard split spoon sampler the last 12 inches of an 18-inch sample and is recorded on the boring logs at the appropriate depth. Use of the standard split spoon sampler defines a Standard Penetration Test (SPT), and yields an SPT-equivalent blow count. (Where we drove the sampler 24 inches in some cases, this is a modified SPT test.) A modified California (Mod-Cal) sampler was also used, which results in blow counts that are higher than an SPT-equivalent blow count, due to the Mod-Cal sampler's larger diameter. For analyses, it is normal practice to reduce the Mod-Cal blow counts to correspond to an SPT-equivalent blow count. The blow counts from the Mod-Cal sampler are uncorrected on the logs. The results of these field tests are presented on the boring logs.

The boring log and related information depict our interpretation of subsurface conditions only at the specific location and time indicated. Subsurface conditions and ground water levels at other locations may differ from conditions at the locations where sampling was conducted. The passage of time may also result in changes in the subsurface conditions.

Project Name Zheng					Project Number 19-112		 Sigma Prime Geosciences, Inc.		
Location Back of Lot									
Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum			
Continuous	4"	6.0'	2.2'	3.8'	297'	Assumed*	Boring No.	B-1	
Drilling Company Access Soil Drilling				Logged By CMK		Page		1 of 1	
Type of Drill Rig		Type of Sampler(s) Mod Cal, 2 1/2, SPT		Hammer Weight and Fall 140 lb, 30"		Date(s)		7-11-19	
Depth (feet)	Description			Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0' - 2.2': <u>Sandy Clay</u> : dark brown; stiff; moist.				CL	6 10 13 14	1	MC	* Assumed datum means datum selected by surveyor; not a true elevation.
	2.2' - 6': <u>Granodiorite</u> : salt and pepper color; slightly weathered; friable.					18 26 29 36	2	2 1/2"	<u>Lab, Sample #1:</u> Moisture%=12.6% Dry Density=108.6 pcf LL=34, PL=25, PI=9
5						21 17 36 45	3	SPT	
	Bottom of Hole 6' below ground surface. No groundwater encountered.								
10									
15									
20									

Project Name Zheng					Project Number 19-112		 Sigma Prime Geosciences, Inc.		
Location Front of Lot									
Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum			
Continuous	4"	6.0'	2'	4'	303'	Assumed*	Boring No.	B-2	
Drilling Company Access Soil Drilling				Logged By CMK		Page		1 of 1	
Type of Drill Rig		Type of Sampler(s) Mod Cal, 2 1/2, SPT		Hammer Weight and Fall 140 lb, 30"		Date(s)		7-11-19	
Depth (feet)	Description			Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0' - 2': <u>Sandy Clay</u> : dark brown; stiff; moist.				CL	4	1	MC	* Assumed datum means datum selected by surveyor; not a true elevation. <u>Lab, Sample #1:</u> Moisture%=12.9% Dry Density=103.2 pcf LL=44, PL=28, PI=16
	2' - 6': <u>Granodiorite</u> : salt and pepper color; slightly weathered; friable.								
					20		3	SPT	
5					4				
					9				
					20				
					20				
					15				
					17				
					24				
					28				
					20				
					24				
					28				
					36				
	Bottom of Hole 6' below ground surface. No groundwater encountered.								
10									
15									
20									

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE	GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	Cu > 4 AND 1 < Cc < 3	GW	WELL-GRADED GRAVEL
		GRAVELS WITH FINES > 12% FINES	Cu < 4 AND/OR 1 > Cc > 3	GP	POORLY-GRADED GRAVEL
		FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL	
		FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL	
	SANDS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN SANDS < 5% FINES	Cu > 6 AND 1 < Cc < 3	SW	WELL-GRADED SAND
		SANDS WITH FINES > 12% FINES	Cu < 6 AND/OR 1 > Cc > 3	SP	POORLY-GRADED SAND
		FINES CLASSIFY AS ML OR CL	SM	SILTY SAND	
		FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND	
FINE-GRAINED SOILS > 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT < 50	INORGANIC	PI > 7 AND PLOTS > "A" LINE	CL	LOW-PLASTICITY CLAY
		ORGANIC	PI > 4 AND PLOTS < "A" LINE	ML	LOW-PLASTICITY SILT
	SILTS AND CLAYS LIQUID LIMIT > 50	INORGANIC	PI PLOTS > "A" LINE	CH	HIGH-PLASTICITY CLAY
		ORGANIC	PI PLOTS < "A" LINE	MH	HIGH-PLASTICITY SILT
		INORGANIC	LL (oven dried)/LL (not dried) < 0.75	OL	ORGANIC CLAY OR SILT
		ORGANIC	LL (oven dried)/LL (not dried) < 0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK COLOR, ORGANIC ODOR	PT	PEAT	

NOTE: $Cu = D_{60}/D_{10}$

$Cc = (D_{30})^2 / (D_{10} + D_{60})$

BLOW COUNT

THE NUMBER OF BLOWS OF THE HAMMER REQUIRED TO DRIVE THE SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE. THE NOTATION 50/4 INDICATES 4 INCHES OF PENETRATION ACHIEVED IN 50 BLOWS.

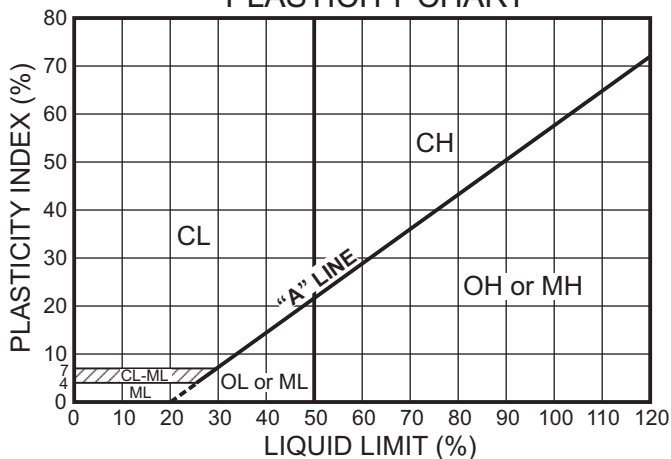
SAMPLE TYPES

- B BULK SAMPLE
- ST PUSHED SHELBY TUBE
- SPT STANDARD PENETRATION
- MC MODIFIED CALIFORNIA
- P PITCHER SAMPLE
- C ROCK CORE

ADDITIONAL TESTS

- CA - CHEMICAL ANALYSIS
- CN - CONSOLIDATION
- CP - COMPACTION
- DS - DIRECT SHEAR
- PM - PERMEABILITY
- PP - POCKET PENETROMETER
- Cor. - CORROSIVITY
- SA - GRAIN SIZE ANALYSIS
- (20%) - (PERCENT PASSING #200 SIEVE)
- SW - SWELL TEST
- TC - CYCLIC TRIAXIAL
- TU - CONSOLIDATED UNDRAINED TRIAXIAL
- TV - TORVANE SHEAR
- UC - UNCONFINED COMPRESSION
- WA - WASH ANALYSIS
- WATER LEVEL AT TIME OF DRILLING AND DATE MEASURED
- LATER WATER LEVEL AND DATE MEASURED

PLASTICITY CHART



LEGEND TO SOIL DESCRIPTIONS



FIGURE A-1



APPENDIX B

LABORATORY TESTS

Samples from the subsurface study were selected for tests to establish the physical and engineering properties of the soils. The tests performed are briefly described below.

The natural moisture content and dry density were determined in accordance with ASTM D 2216 on selected samples recovered from the borings. This test determines the moisture content and density, representative of field conditions, at the time the samples were collected. The results are presented on the boring logs, at the appropriate sample depth.

Two samples of clayey soil were tested for expansive potential, using the Atterberg limits test, as per ASTM D-4318. The results are presented on the boring logs, at the appropriate sample depths.

Exhibit 5



Sigma Prime Geosciences, Inc.
Effective Solutions

RECEIVED

APR 19 2019

San Mateo County
Planning and Building Department

PLN2019-00162

332 PRINCETON AVENUE
HALF MOON BAY, CA 94019
650-728-3590
sigmaprm@gmail.com

DRAINAGE REPORT

Zheng Property
El Granada Blvd.
El Granada, CA
APN 047-151-120
Sigma Prime Job #: 19-112

March 18, 2019

TABLE OF CONTENTS

1.0 SITE SPECIFIC DATA 3
2.0 HYDROLOGIC ANALYSIS 3
3.0 HYDRAULIC ANALYSIS..... 4
4.0 PROVISIONS TO CONTROL FLOW INTO NEIGHBORING LOTS..... 4
5.0 MAINTENANCE..... 4

Appendices

1.0 SITE SPECIFIC DATA

Impervious Surface Areas:

Description	Area, SF
Roof of House	1983
Driveway	347
Total	2330

Slope of Development:

The average slope of the property is 18.5 percent. The house site is fairly level. The upper part of the property is level, then drops off steeply to the west. The average slope of the property was calculated using an equation enclosed on an attached spread sheet.

Watershed Information:

The property drains to an unnamed watershed to the west. The watershed covers an area of about 350 acres, based on GoogleEarth. It extends eastward into the hills and ends in Pilar Point Harbor.

FEMA Designation:

The FEMA designation is X. This is an area that is outside the flood area with a 0.2% probability of occurring.

Floodway/Floodplain:

The site is in a raised area with no possibility of flooding.

Existing Drainage Courses:

The property slopes down to a deep valley with an unnamed creek. The creek is about 800 feet to the west, and 350 feet lower in elevation.

2.0 Hydrologic Analysis

Proposed Calculation Method:

The Rational Method was used to estimate runoff to size a detention basin. The detention basin will be connected to an energy dissipater. The detention basin has a 1-inch orifice connected to a 2-inch outflow to the energy dissipater. This will slow down runoff from the site and allow the detention basin to empty between storms.

Existing and Proposed Surface Runoff Volumes:

The pre-construction runoff is estimated to be 0.090 cubic feet per second (CFS). The post-construction runoff is estimated to be 0.164 CFS, for an increase of 0.075 CFS. These values are for the case where there are no runoff mitigation measures such as a detention

basin. The proposed drainage system is meant to minimize an increase of runoff from the property. Our runoff calculations are attached.

Data Input and Output:

The data are provided on our spread sheet used for sizing the detention basin. The time of concentration for the pre-construction condition is 15 minutes, for sheet flow across undeveloped land. The time of concentration for the post-construction condition is 10 minutes, for flow from the roof.

3.0 Hydraulic Analysis

One detention basin, 2.5 feet in diameter and 22.6 feet long, is proposed. It is sized based on the Rational Method. The major conveyance device is 3-inch minimum diameter PVC pipes from the downspouts. The calculations for sizing the system are attached.

4.0 Provisions to Control Flow into Neighboring Lots

The proposed detention basin system will prevent an increase in runoff to neighboring properties.

5.0 Maintenance

The operation and maintenance of the drainage facilities is the responsibility of the home owner. The home owner should regularly maintain the facilities to ensure functionality throughout the lifetime of the residence. This maintenance should include:

- The clearing of debris and sediment build-up from the roof gutters, downspouts, area drains and drainage lines
- Annual inspection the detention basin, looking for buildup or organic and soil matter in the pipe.

Continual refinement of surface grading, including clearing/re-finishing of slopes, to: minimize ponding, provide positive drainage away from structures, and protect against erosion.

Average Slope Calculation

Job: Zheng
No.: 19-112
Date 3/18/2019
by: CMK

Contour Interval (I):

2

 ft
Area of Lot:

5580

 SF
Area of Lot (A):

0.1281

 Acres

CONTOUR	L
280	5.4
282	16.2
284	18.4
286	20.7
288	23.2
290	25.7
292	31.2
294	43.6
296	56.8
298	68.9
300	127.6
302	80.9

total lengths of contours (L):

518.6

 ft

Equation:

$$S = (0.00229(IL))/A$$

where:

I= contour interval in feet

L=total lengths of contours

A= area of lot in acres

S=

18.54

 percent



Detention Basin Sizing

Job: Zheng
No.: 19-112
Date 3/18/2019
by: CMK

Rational Method to Estimate Storm Runoff

$Q_p = CIA_d$

Area, A_d (sf): 2330
Area, A_d (acres): 0.05349
 C_{10} : 0.3 pre-project 0.9 post-project

Time of Concentration, t_c :

Pre-Development: 15 min
Post-Development: 10 min

I (rainfall intensity): NOAA Atlas 14

I_{10} = 2.33 in/hr (Post-Development)
 I_{15} = 1.88 in/hr (Pre-Development)

Pre-Project:

$Q = CIA$: 0.030 CFS

Post-Project:

$Q = CIA$: 0.112 CFS

ΔQ = 0.0820 CFS

Detention Size (for 15-min duration):

10-yr Storm: 73.80 CF

Size Pipes for 10-year event:

18" diam. Solid Pipe: 62.6 LF Required
24" diam. Solid Pipe: 35.2 LF Required
30" diam. Solid Pipe: 22.6 LF Required
36" diam. Solid Pipe: 15.7 LF Required

Includes FS=1.5



Runoff Comparison

Job: Zheng
No.: 19-112
Date 3/18/2019
by: CMK

Rational Method to Estimate Storm Runoff

$Q_p = CIA_d$

Lot Area (sf):

Pre-Construction:

Pervious Area (sf):

Impervious Area (sf):

Total Area, A_d (sf):

Area, A_d (acres):

Pervious C_{10} :

Impervious C_{10} :

Weighted C_{10} :

Time of Concentration, t_c : minutes

I (rainfall intensity): From NOAA Atlas 14

$I_{10} =$ in/hr

Q=CIA: CFS

Post-Construction:

Pervious Area (sf):

Impervious Area (sf):

Total Area, A_d (sf):

Area, A_d (acres):

Pervious C_{10} :

Impervious C_{10} :

Weighted C_{10} :

Time of Concentration, t_c : minutes

I (rainfall intensity): From NOAA Atlas 14

$I_{10} =$ in/hr

Q=CIA: CFS

Difference: CFS

Exhibit 6



Planning & Building Department

455 County Center, 2nd Floor
 Redwood City, California 94063
 650/363-4161 Fax: 650/363-4849

Mail Drop PLN122
 plngbldg@smcgov.org
 www.co.sanmateo.ca.us/planning

PLN2019-00162

Summary of Case Activity

Activity	Date Assigned	Done By	Status	Status Date
Appeals appeal fee received . Appeal statement to be received by May 26, 2020.	05/15/2020	Olivia Boo	Appeal Filed	05/15/2020
Appeals 5/14/20 revised letter to be mailed with corect appeal end date 5/26/20 due to memorial day holiday 5/11/20appeal period ends 5/25/20	05/14/2020	Olivia Boo	Approved Pending Appeal	05/11/2020
Staff Decision - Hearings	05/11/2020	Olivia Boo	Approved	05/11/2020
CEQA Preparation	04/23/2020	Olivia Boo	Not a Project Under CEQA	04/23/2020
Planning Department added grading permit fee. applicant pd to date \$4948.95 total PLN fees do not include :DPW \$400 or \$100 or GP update charge \$40 aplicant has paid 4,199 for PLN fees., thus owes 1415 that will cap at 5614. Added GP fee and legal counsel fee but adjusted it to GP \$1315 and Legal Counsel \$100 for a total \$1415 which is due to be pd.	04/16/2020	Olivia Boo	Notes	04/16/2020
Staff Decision - Hearings CDRC recommended approval to second redesign. Project requires staff level grading permit, thus staff level approval.	04/23/2020	Olivia Boo	Recommend Approval	04/09/2020
Midcoast Community Council	04/16/2020	Olivia Boo	No Comments	04/08/2020
Planning Department poster and agenda emailed to applicant	03/27/2020	Olivia Boo	Notes	03/27/2020
Planning Department 3/4/20 osb-received revised plans. To be reviewed with CDR officer. Does it need to be referred to other departments? if no refeerrals required, I let applicant know to deliver one full size set for Planning file.	03/04/2020	Olivia Boo	Received	03/04/2020
Geotechnical Department 1. A peer review of the soils report will occur at the time of building permit application.	02/13/2020	Miles Hancock	Approved with Conditions	02/13/2020
Project Analysis	04/23/2020	Olivia Boo	Deemed Complete	02/13/2020
Required Advisory Committee	04/23/2020	Olivia Boo	No Advisory Committee Re	02/13/2020
Staff Decision - Hearings applicant agreed to another redesign	04/23/2020	Olivia Boo	Continued - Project Analysi	02/13/2020
Planning Department referral to geotech/building staff for geo report due to liquifaction are at rear corner of parcel	01/24/2020	Olivia Boo	Notes	01/24/2020
Department of Public Works 1/21/20 osb-referraal to DPW Right of way, for review of modified driveway.	01/21/2020	Olivia Boo	Notes	01/21/2020
Planning Department mailed continuance letter to interested parties.	01/17/2020	Olivia Boo	Notes	01/17/2020
 continuance letter emailed to CDRC members	01/17/2020	Olivia Boo	Notes	01/17/2020
	01/24/2020	Olivia Boo	Notes	01/17/2020

Activity	Date Assigned	Done By	Status	Status Date
1/24/20 osb-project requires review of geotech report at Planning stage due to landslide portion at rear of parcel.				
1/23/20 osb sent reminder email for geotech report .				
1/17/20 300 c.y. of grading required. Geotech report required or if amount can be reduced to 250 c.y. Alerted applicant by email. Requested geo tech report for geotech staff to review.				
1/17/20 agendized for February 13 2020 hearing				
Planning Department emailed continuance letter to applicant.	01/17/2020	Olivia Boo	Notes	01/16/2020
Planning Department DR resubmittal - 5 full size sets and 1 reduced set.	12/05/2019	Dennis Aguirre	Received	12/05/2019
Staff Decision - Hearings CDRC requested redesign	04/23/2020	Olivia Boo	Continued - Project Analysis	11/14/2019
Department of Public Works 10/25/19 dys: see conditions.	10/25/2019	DPW Permits	Approved with Conditions	10/25/2019
Planning Department Applicant dropped off 2 additional plan sets per project planners request. Routed to Olivia, planner of record.	10/17/2019	Kanoa Kelley	Notes	10/17/2019
Planning Department 10/15/19 osb-project submittal is now complete. Revised plans include information requested. I have asked applicant to submit 2 additional sets of complete revised plans plus one flash drive.	10/16/2019	Olivia Boo	Notes	10/16/2019
Planning Department 10/9/19 ACC- Received, material samples for windows, garage doors, and roof. One copy of the color board and two sets of revised plans addressing comments from 9/17. Routed to Olivia, planner of record.	10/09/2019	Angela Chavez	Received	10/09/2019
Planning Department a.Label the " Proposed " grade. b.Is fill to be added to the crawl space? Any dirt to be removed? c.Call out/identify interior attic access on all applicable pages. d.All applicable pages need to show revised front porch-C-2, SP-S (show on all floor plans and elevations) e.Please check with Department of Public Works regarding whether landscaping and pavers are permitted in the 5 ft. easement that runs parallel to the front property line. Public Works will likely not allow on easement. f.The color board needs small tile sample instead of a paper color sample. g.Include a specification sheet for the garage door and the front door. h.Include a cross section for the highest point of the house. The house scales over height at 28.5 ft. i.Label the use of the space in the garage area that leads to the kitchen, on all applicable pages (A101, A103, SP, SP-S, A102, A201). Is this for the washer/dryer? j.Add the exterior light fixtures to the proposed locations on all elevation pages and floor plans. k.Remove the two palm trees from applicable pages- l.Show a cross section and height of the storage area above the garage. The floor to ridge of the storage area scales at 9.5 ft. What material is immediately below the roof? m.No irrigation proposed. Project to be reviewed and approved by the Coastside Design Review Committee.	09/17/2019	Olivia Boo	Deemed Incomplete	09/17/2019

Label the " Proposed " grade.
 Is fill to be added to the crawl space? Any dirt to be removed?
 Call out/identify interior attic access on all applicable pages.
 All applicable pages need to show revised front porch-C-2, SP-S (show on all floor plans and elevations)
 Please check with Department of Public Works regarding whether landscaping and pavers are permitted in the 5 ft. easement that runs parallel to the front property line. Public Works will likely not allow on easement.
 The color board needs small tile sample instead of a paper color sample.
 Include a specification sheet for the garage door and the front door.
 Include a cross section for the highest point of the house. The house scales over height at 28.5 ft.
 Label the use of the space in the garage area that leads to the kitchen, on all applicable pages (A101, A103, SP, SP-S, A102, A201). Is this for the washer/dryer?
 Add the exterior light fixtures to the proposed locations on all elevation pages and floor plans.
 Remove the two palm trees from applicable pages-
 Show a cross section and height of the storage area above the garage. The floor to ridge of the storage area scales at 9.5 ft. What material is immediately below the roof?
 No irrigation proposed. Project to be reviewed and approved by the Coastside Design Review Committee.
 A set of plans has been routed to Public Works for further review.

Planning Department	08/21/2019	Mike Schaller	Received	08/21/2019
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8/21/19 mjs - resubmittal showing changes that project planner had requested. Will route to Olivia.

California Coastal Commission	05/11/2020	Olivia Boo	Notes	06/21/2019
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5/11/20 no comments received to date

6/21/19 referred to Coastal Commission

Planning Department	08/20/2019	Olivia Boo	Fail	06/21/2019
----------------------------	------------	------------	------	------------

8/20/19 osb-l reviewed revised porch design that was emailed to me for preliinary review. Applicant needs to resubmit hard copy plans and address incomplete letter. Per architect, resubmittal of revised plans will be soon.

6/21/19
 front porch is measured incorrectly and needs to be shortened to less than 4 ft depth to not count towards FAR. Emailed applicant.

Sewer Districts - Multiple	06/05/2019	Olivia Boo	Approved with Conditions	05/31/2019
-----------------------------------	------------	------------	--------------------------	------------

Water Districts - Multiple	06/05/2019	Olivia Boo	Approved with Conditions	05/31/2019
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Planning Department	05/24/2019	Olivia Boo	Notes	05/24/2019
----------------------------	------------	------------	-------	------------

5/24/19 osb-response to applicant. Clarified what i am asking for.
 Sorry, I overlooked the height numbers on the elevation pages.

The floor plan breakdown is required per attachment " Coastside Design Review page 6". This is necessary to illustrate that the project complies with FAR. Please include this sheet in your upcoming resubmittal.

Regarding the color chips, I used the incorrect description, color swatch is require per attachment "Coastside Design Review page 4"-.

For page A3.01, Section A1 and A2, I have sketched what I am asking for ("Front to back cross section" and "side cross section"). The existing grade needs to be added to each cross section. This is how staff verifies the height.

Drainage comments are as follows. I forgot to note that drainage comments were still pending. These comments, as noted, will be required at the building permit stage.

Please note that the following will be required at the time of building permit submittal.

- An updated Drainage Report prepared and stamped by a Registered Civil Engineer.
- A final Grading and Drainage Plan prepared and stamped by a Registered Civil Engineer.
- An updated C3 C6 Checklist (if changes to the amount of impervious area were made during the design phase).

The final grading and drainage plans should take into account the following comments (FYI, not for COA):

- Dissipator should be 5' long for existing slope.
- Retaining wall around detention basin could pose tripping hazard to residents. Recommend removing wall.
- Conveyance piping should be 4" in diameter to facilitate cleaning.
- Detention basin should be 23' long, cross section should be appropriate, and cleanout access should be located near outlet structure.

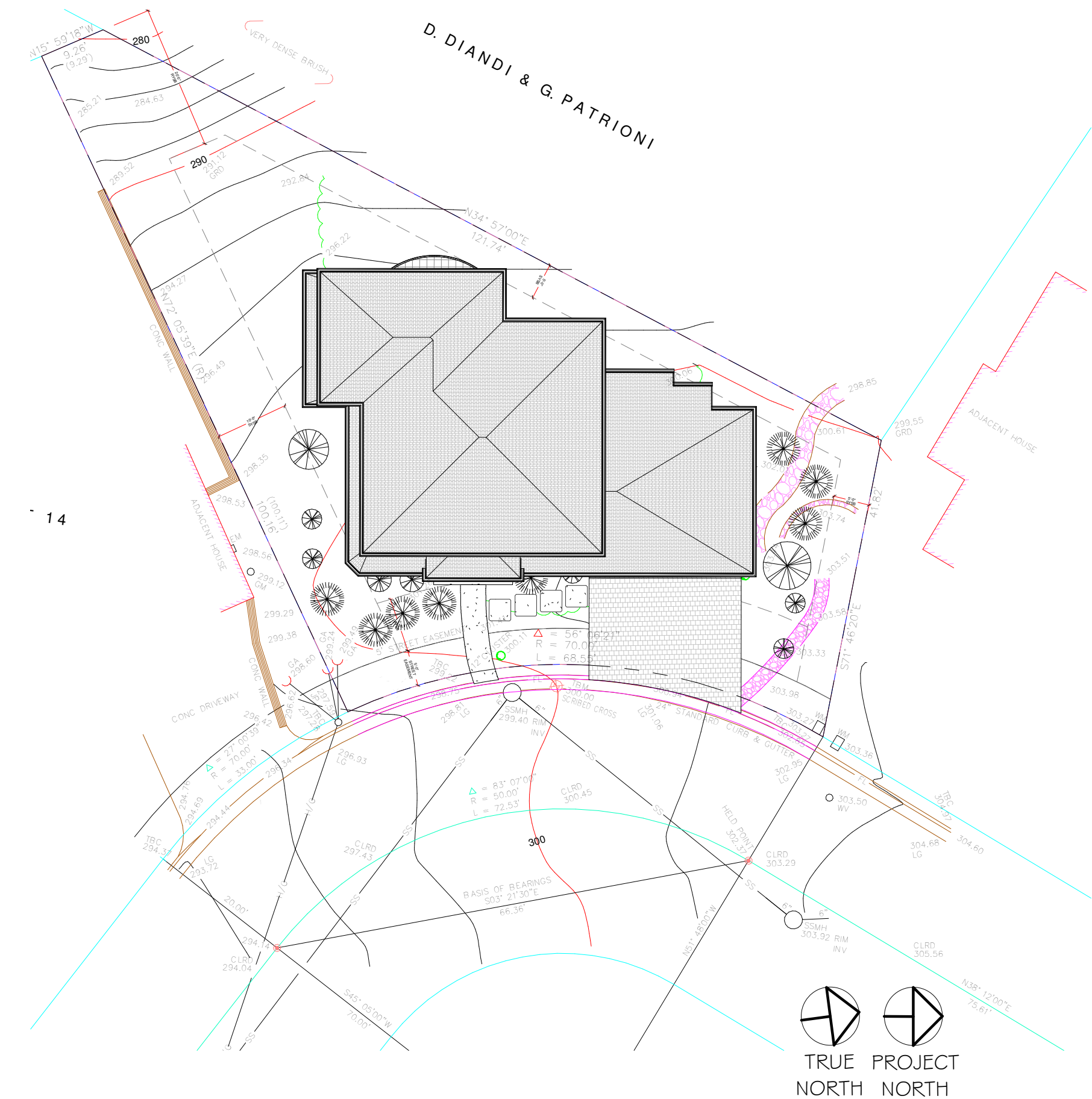
The biologist report looks good. The mitigation measures will be added as conditions of approval.

Activity	Date Assigned	Done By	Status	Status Date
Department of Public Works [DRA] Preliminary drainage report and C3/C6 form were submitted 4/19/19. No further information required at this time. Please note that the following will be required at the time of building permit submittal. <ul style="list-style-type: none"> • An updated Drainage Report prepared and stamped by a Registered Civil Engineer. • A final Grading and Drainage Plan prepared and stamped by a Registered Civil Engineer. • An updated C3 C6 Checklist (if changes to the amount of impervious area were made during the design phase). The final grading and drainage plans should take into account the following comments (FYI, not for COA): <ul style="list-style-type: none"> • Dissipator should be 5' long for existing slope. • Retaining wall around detention basin could pose tripping hazard to residents. Recommend removing wall. • Conveyance piping should be 4" in diameter to facilitate cleaning. • Detention basin should be 23' long, cross section should be appropriate, and cleanout access should be located near outlet structure. 	05/21/2019	Melody Eldridge	Notes	05/21/2019
Fire Department 5-20-19 ROA: See Letter for conditions	05/20/2019	CalFire Fire	Approved with Conditions	05/20/2019
Planning Department Dear Applicant, Please submit the following information for this project. WELO If the proposed landscaping includes irrigation, complete the appropriate WELO landscape forms. https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/MWELO%20Project%20Information_0_0.pdf https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/MWELO%20Project%20Information%20Short%20Form%20for%20Prescriptive%20Compliance_0_0.pdf https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Prescriptive_MWELOSubmittalChecklist.pdf Height verification Please adding the following numbers Garage Floor, first floor, ridge Page A3.01 , Section A1 Add existing grade line and the 28 ft. height envelope as you have done for previously approved Design Review projects. Section A2-Add existing grade line Proposed colors-submit original 3x3 color paint chip Trees-Would you be able to confirm if trees will be removed and submit a tree protection plan. FAR - Submit a breakdown calculation that I can calculate and confirm.	05/20/2019	Olivia Boo	Deemed Incomplete	05/20/2019
Department of Public Works 5/8/19 dys: missing drainage calcs c3/c6 checklist. See docs for comments. sent to engr	05/08/2019	DPW Permits	Pending Resubmittal	05/08/2019
Building Department 1. The project requires a building permit. 2. The project is located in a LRA Very High Fire Hazard Severity Zone and shall be designed and constructed according to the CRC or CBC requirements.	05/06/2019	Miles Hancock	Approved with Conditions	05/06/2019
Agency Referrals	05/03/2019	Olivia Boo	Route	05/03/2019
Application Submitted	05/03/2019	Olivia Boo	Completeness Review	05/03/2019
Department of Public Works DRA & Roads	05/03/2019	Olivia Boo	Notes	05/03/2019



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT H



1 Site Plan
1/16" = 1'-0"

PLN 2019-00162
REVISIONS DEC 2, 2019

THE CDRC, AT THE NOV 14th MEETING, RECOMMENDED THAT THE HOUSE AND ROOFLINE BE LOWERED. ALSO, OTHER MINOR INCONSISTANCIES BE RESOLVED. TO THAT END, THE FOLLOWING REVISIONS HAVE BEEN MADE:

- EXISTING GRADE AT THE FRONT OF THE LOT HAS BEEN LOWERED ~2 FEET
- A SLAB-ON-GRADE FOUNDATION WILL REPLACE A FRAMED FLOOR WITH CRAWLSPACE
- THE FIRST FLOOR CEILING IS DROPPED TO 9 FEET
- THE GARAGE ROOF IS LOWERED ~10 1/2 FEET
- THE ROOF PITCHES HAVE BEEN LOWERED
- THE ENTRY TOWER HAS BEEN LOWERED

THE TOTAL RESULT OF THESE REVISIONS IS A ROOFLINE THAT, ON AVERAGE, IS ~5 1/2 FEET BELOW THE ORIGINAL

PLN 2019-00162
ADDITIONAL REVISIONS MAR 2, 2020

THE CDRC, AT THE FEB 13th MEETING, RECOMMENDED THAT THE SECOND FLOOR WALLS BE SET BACK AND OTHER MINOR CRITIQUES, TO THAT END, THE FOLLOWING REVISIONS HAVE BEEN MADE:

- SECOND FLOOR FRONT & SOUTH WALL NEAR FRONT OF PROPERTY HAVE BEEN SHIFTED BACK
- ENTRY EXPRESSION IS SINGLE STORY
- MASTER BEDROOM SOUT WALL SHIFTED 2 FEET TO NORTH

THE TOTAL RESULT OF THESE REVISIONS IS A ROOFLINE THAT, ON AVERAGE, IS ~5 1/2 FEET BELOW THE ORIGINAL

	EXISTING		PROPOSED		TOTAL		ALLOWED	
	AREA (SQFT)	%	AREA (SQFT)	%	AREA (SQFT)	%	AREA (SQFT)	%
LOT AREA	5230							
LOT COVERAGE	0	0.0	1806	34.5	1806	34.5	1830	35.0
FLOOR AREA			First Flr Second Flr Garage	1263 1001 507	First Flr Second Flr Garage	1263 1001 507		
	Total	0 0.0	Total	2771 53.0	Total	2771 53.0	Total	2772 53.0

SITE DATA:

APN: 047-151-120
ZONING: R-1/S-17/DR/CD
OCCUPANCY GROUP: R3/U
TYPE OF CONSTRUCTION: V-B

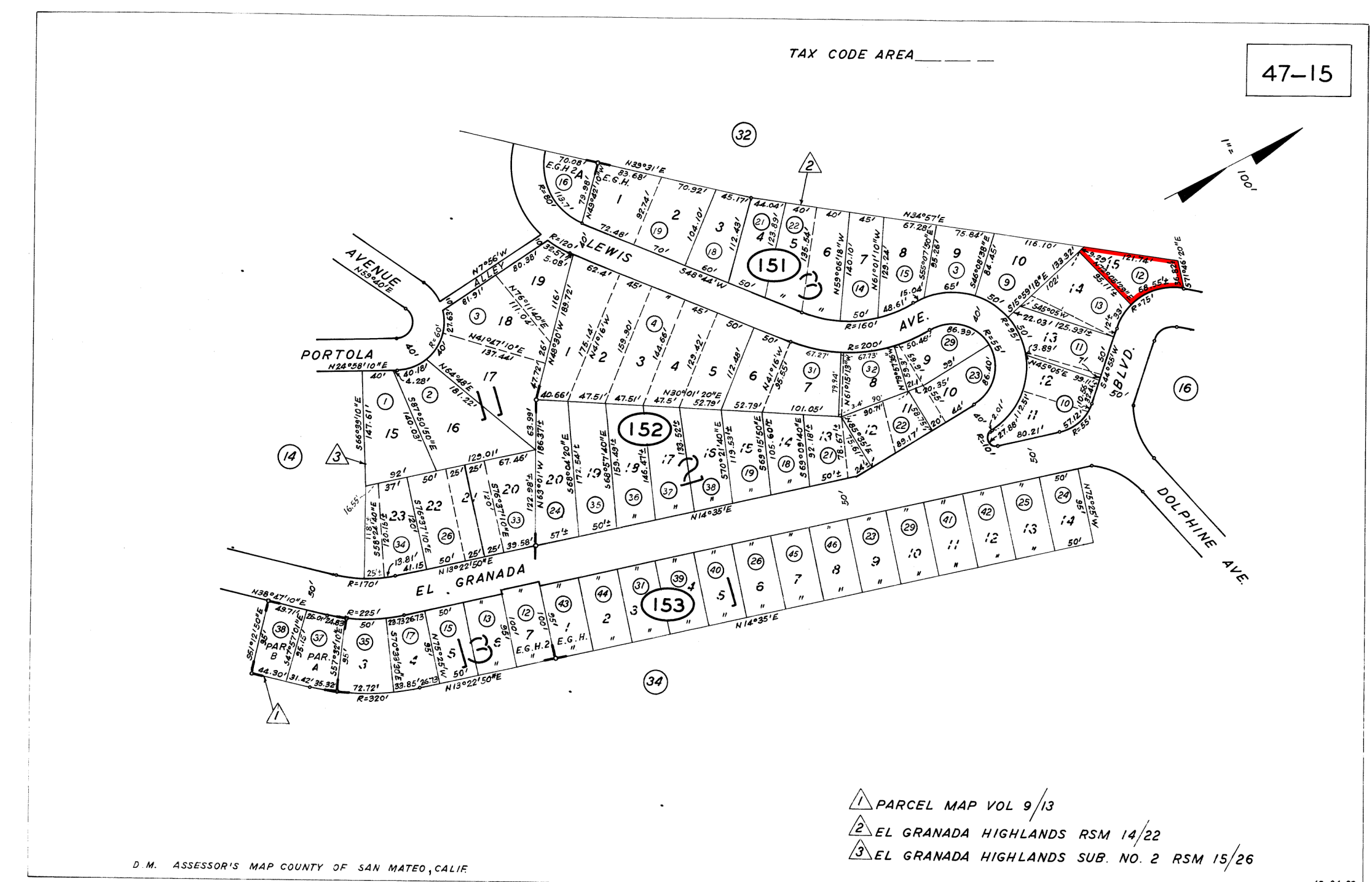
PLN: 2019-00162
BLD:

APPLICABLE CODES:
SAN MATEO COUNTY

SAN MATEO COUNTY ZONING & BUILDING ORDINANCES
2019 CALIFORNIA RESIDENTIAL CODE
2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

Sheet List - DD

Sheet Number	Sheet Name
AO.01	Cover Sheet
SU.1	Survey
AO.02	Site Plan
AO.03	Site Plan Supplement
AO.04	Site Plan - Views
C.1	Grading & Drainage
C.2	Erosion Control
A1.01	First Floor Plan
A1.02	Second Floor & Roof Plan
A1.03	Floor Area Plan
A2.01	Elevations - East & North
A2.02	Elevations - West & South
A3.01	Sections
A7.01	Product Sheets
LP.01	Landscape Plan by Flora Farms



REVISIONS



Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

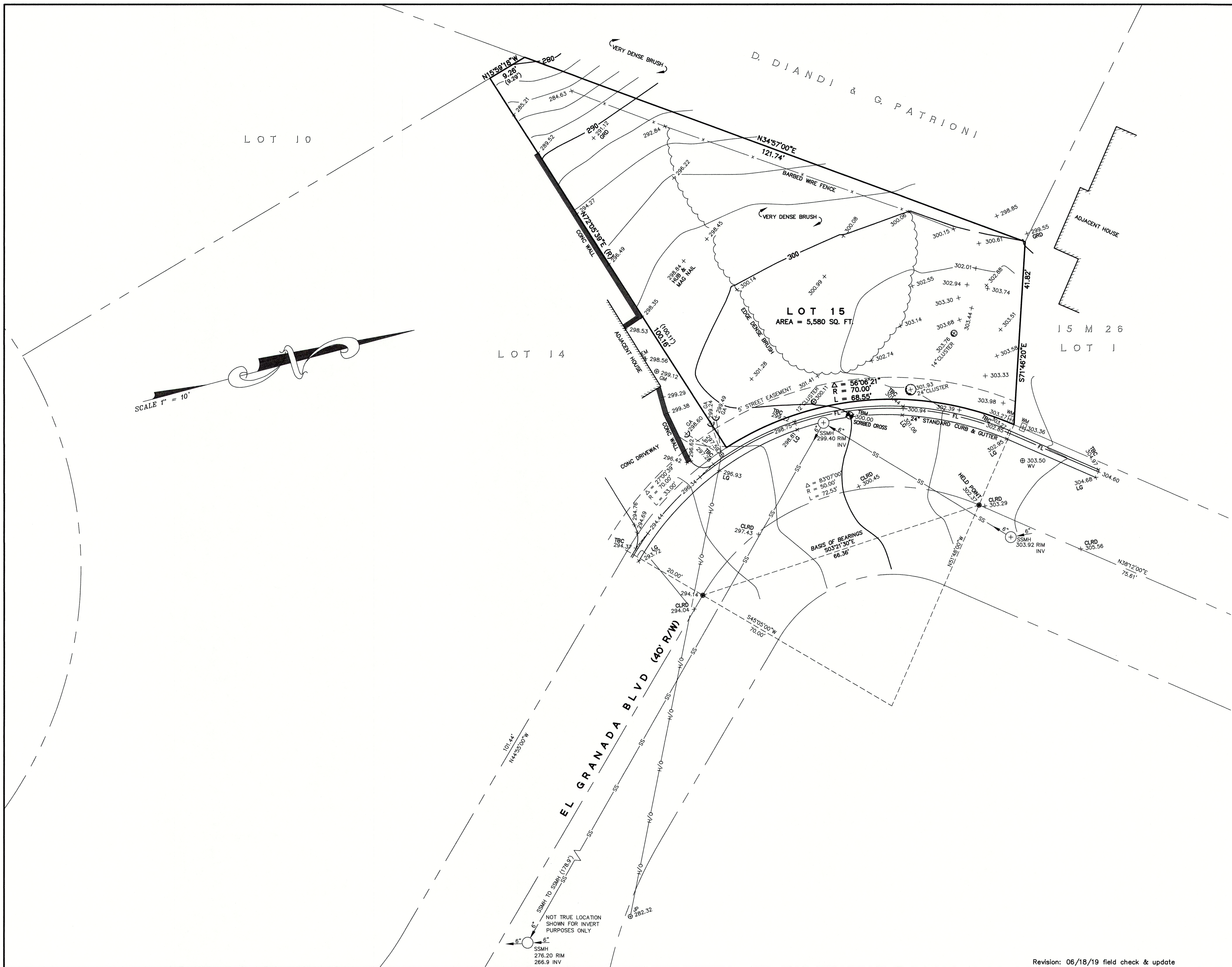
Cover Sheet



DATE: 03/02/20
SCALE: As indicated
DRAWN: GMH
JOB: ZHENG

SHEET:
AO.01

OF SHEETS



SCALE 1" = 10'

BASIS OF ELEVATIONS:
 ELEVATIONS ARE BASED UPON AN ASSUMED DATUM.
 TBM: SET SCRIBED CROSS AS SHOWN
 ELEVATION = 100.00

BASIS OF BEARINGS:
 THE CALCULATED BEARING, S3°21'30"E BETWEEN TWO FOUND MONUMENTS AS SHOWN ON THAT CERTAIN RECORD OF SURVEY MAP, 6 LLS 124 WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

LEGEND:

⊙	FOUND 2" BRASS DISK WITH PUNCH IN CASING
OPW, SMO	RECORD DATA PER 14 MAPS 23
()	ASPHALTIC CONCRETE
A/C	BACK OF WALK
BW	CATCH BASIN
CB	CAST IRON PIPE
CIP	CORRUGATED METAL PIPE
CMP	CLEAN-OUT
CO	CONCRETE
CONC	DROP INLET
DI	ELECTRIC METER
EM	FOUND
FD	FINISHED FLOOR
FF	FLOW LINE
FL	FIRE HYDRANT
FH	GUY ANCHOR
GA	GAS METER
GM	GROUND
GRD	HANDICAP RAMP
HCR	INVERT
INV.	IRON PIPE
IP	LATERAL
LAT.	LIP OF GUTTER
LG	OVERHEAD
O/H	PUBLIC UTILITIES EASEMENT
P.U.E.	REINFORCED CONCRETE PIPE
RCP	RETAINING WALL
RWALL	RIGHT OF WAY
R/W	SANITARY SEWER CLEAN-OUT
SSCO	SANITARY SEWER MANHOLE
SSMH	STORM DRAIN MANHOLE
SDMH	TOP BACK OF CURB
TBC	TOP OF WALL
T/W	UNDERGROUND
U/G	VITRIFIED CLAY PIPE
VCP	WATER VALVE
WV	WATER METER BOX
WM	CABLE TELEVISION LINE
-CTV-	ELECTRICAL LINE
-E-	GAS LINE
-G-	SANITARY SEWER LINE
-SS-	STORM DRAIN LINE
-SD-	TELEPHONE LINE
-T-	WATER LINE
-W-	

UTILITY NOTE:
 THE UTILITIES EXISTING ON THE SURFACE AND SHOWN ON THIS DRAWING HAVE BEEN LOCATED BY FIELD SURVEY. ALL UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE FROM RECORDS OF THE VARIOUS UTILITY COMPANIES AND THE SURVEYOR DOES NOT ASSUME RESPONSIBILITY FOR THEIR COMPLETENESS, INDICATED LOCATION, OR SIZE. RECORD UTILITY LOCATION SHOULD BE CONFIRMED BY EXPOSING THE UTILITY.



BOUNDARY AND TOPOGRAPHIC SURVEY
 LANDS OF
 DOCUMENT # O.R.
 LOT 15, BLOCK 3
 "EL GRANADA HIGHLANDS"
 VOLUME 14 OF MAPS AT PAGE 23
 ASSESSOR'S PARCEL NUMBER: 047-151-120
 (VACANT LOT)

EL GRANADA SAN MATEO COUNTY CALIFORNIA
 SCALE: 1" = 10' OCTOBER, 2015

B & H SURVEYING, INC.
 PROFESSIONAL LAND SURVEYING
 901 WALTERMIRE ST.
 BELMONT, CA 94002
 OFFICE (650) 637-1590
 FAX (650) 637-1059

Revision: 06/18/19 field check & update

REVISIONS

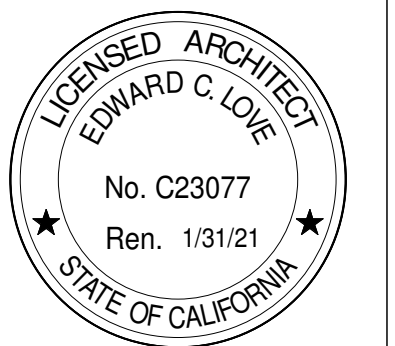


EDWARD C. LOVE, ARCHITECT

Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Site Plan



DATE: 03/02/20

SCALE: As indicated

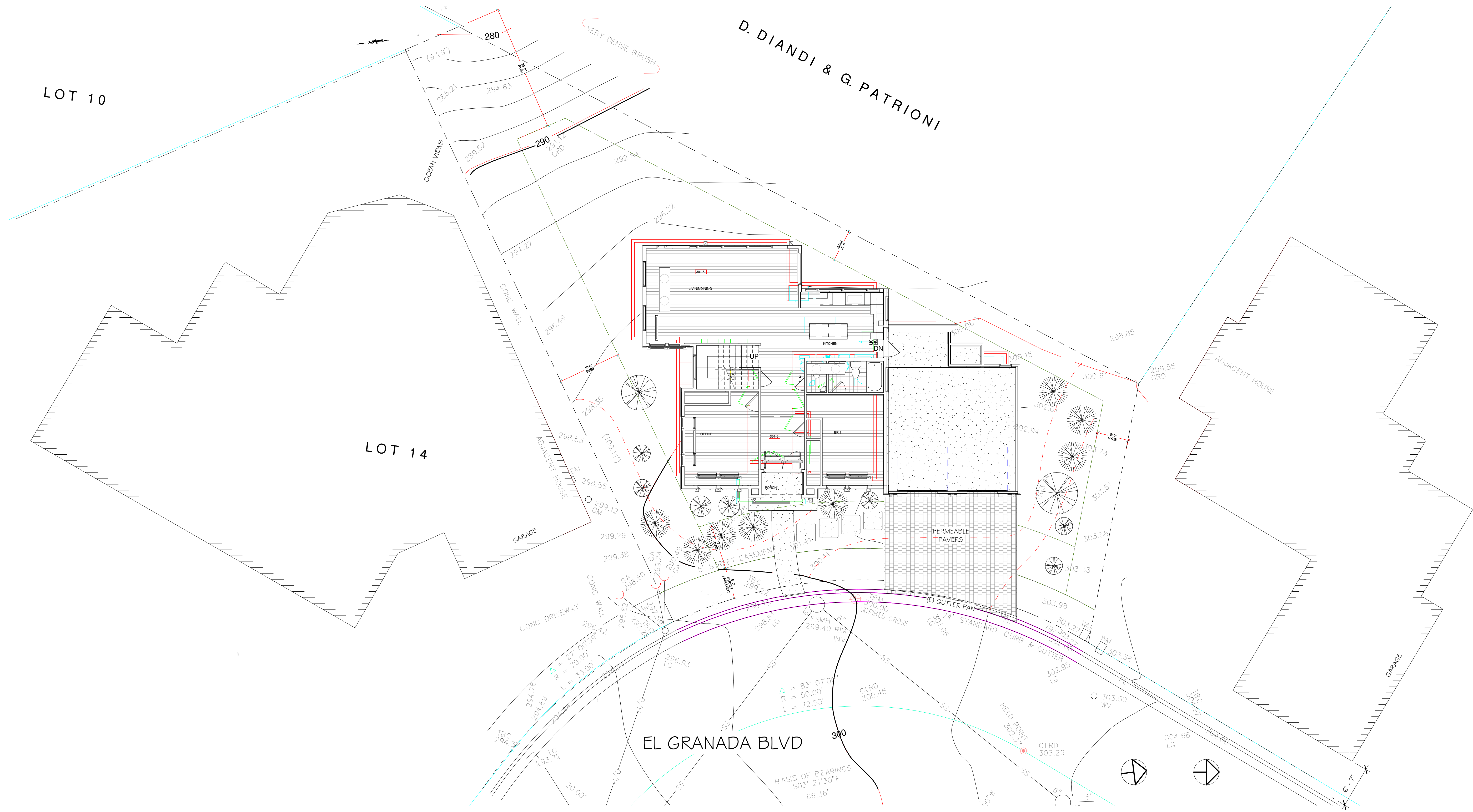
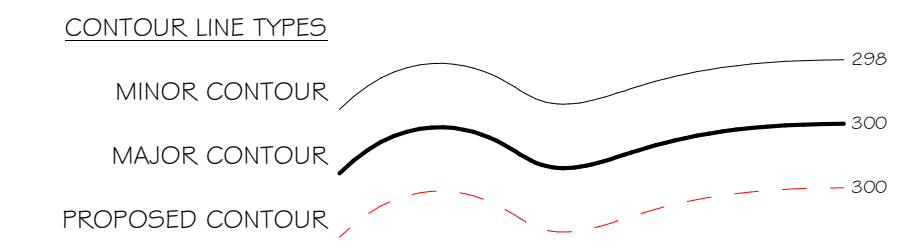
DRAWN: GMH

JOB: ZHENG

SHEET:

A0.02

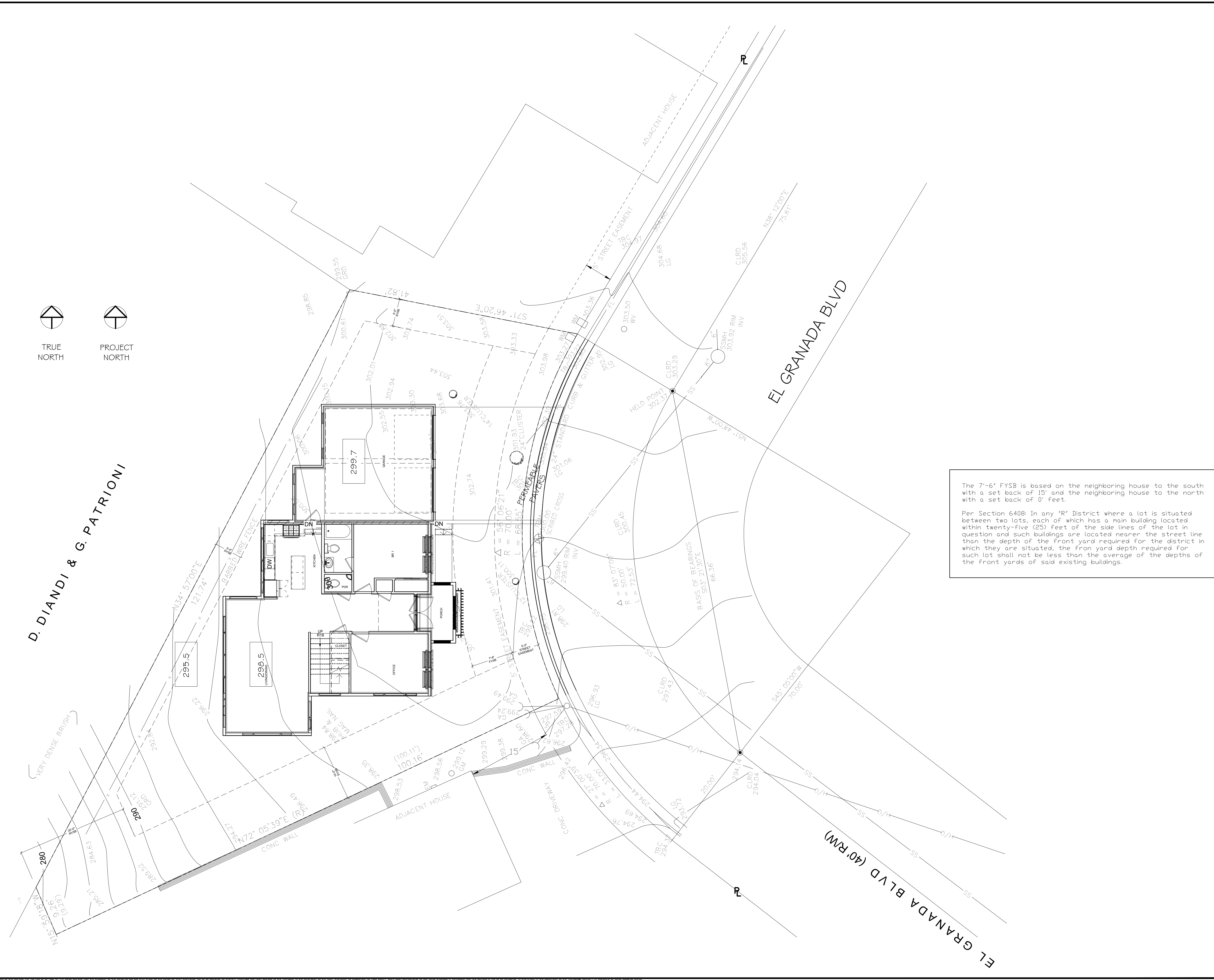
OF SHEETS



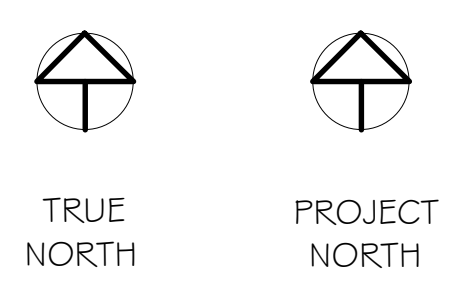
SEE SHEET C-1, GRADING PLAN

1 DD - Site Plan
1/8" = 1'-0"

S:\Client Projects 2017\Zheng\Revit\Zheng-Working.rvt



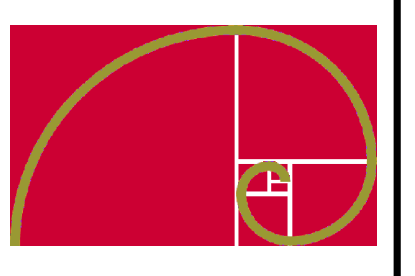
D. DIANDI & G. PATRIONI



The 7'-6" FYSB is based on the neighboring house to the south with a set back of 15' and the neighboring house to the north with a set back of 0' feet.

Per Section 6408: In any "R" District where a lot is situated between two lots, each of which has a main building located within twenty-five (25) feet of the side lines of the lot in question and such buildings are located nearer the street line than the depth of the front yard required for the district in which they are situated, the front yard depth required for such lot shall not be less than the average of the depths of the front yards of said existing buildings.

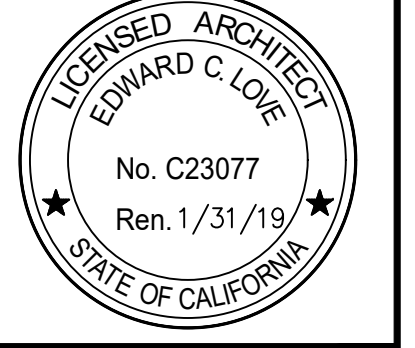
REVISIONS



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Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
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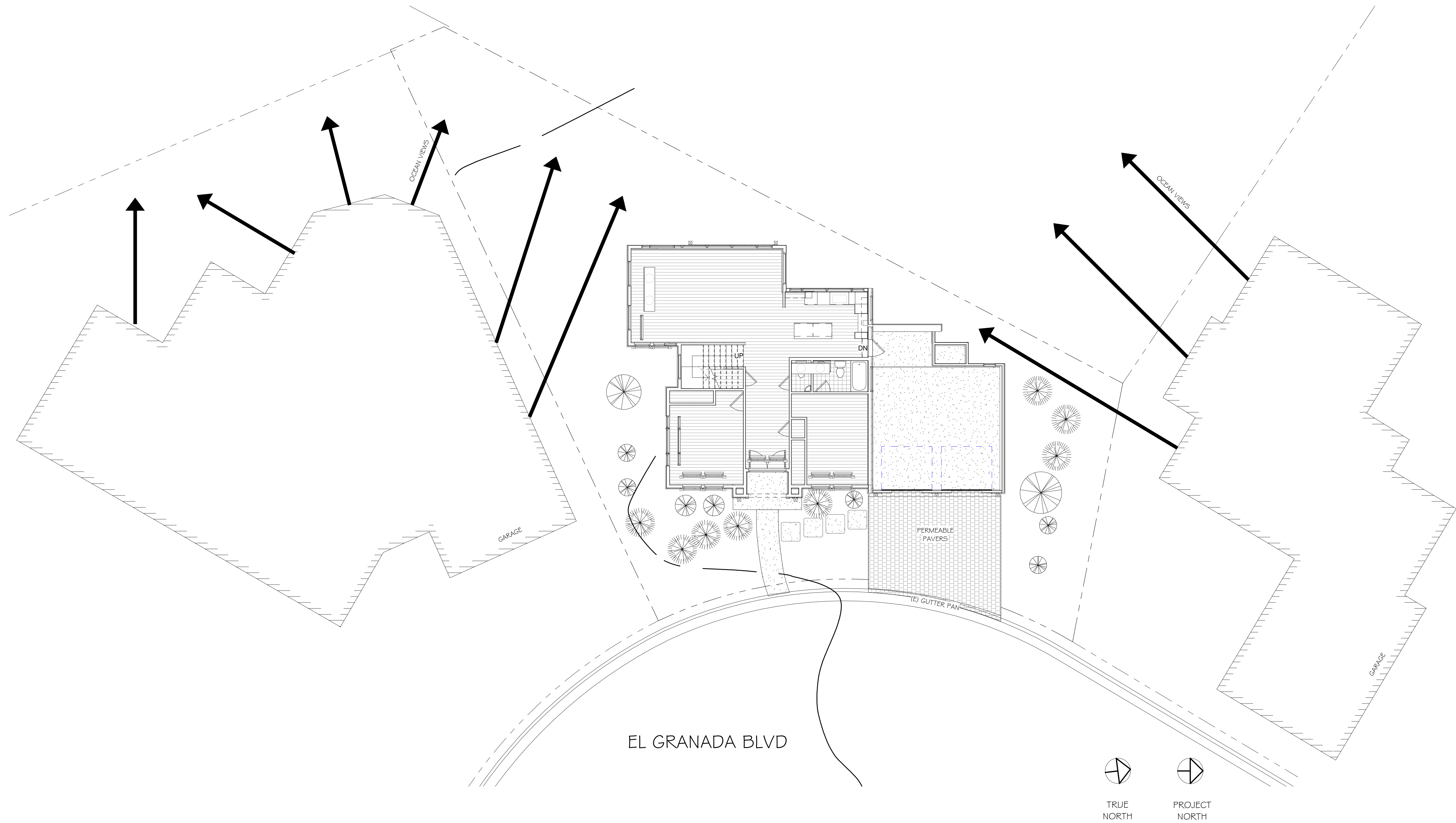
Site Plan
Supplement



DATE: 10/11/17
SCALE: 1/8" = 1'
DRAWN: GMH
JOB: WYER
SHEET:

SP-S
OF SHEETS

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1 DD - View Site Plan
1/8" = 1'-0"

REVISIONS

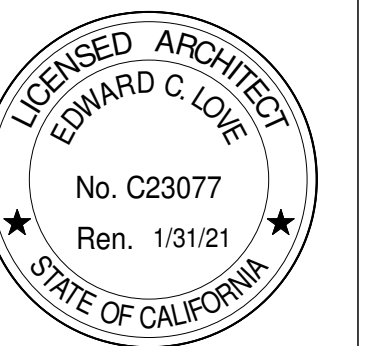


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El Granada, CA

Site Plan - Views



DATE: 03/02/20

SCALE: 1/8" = 1'-0"

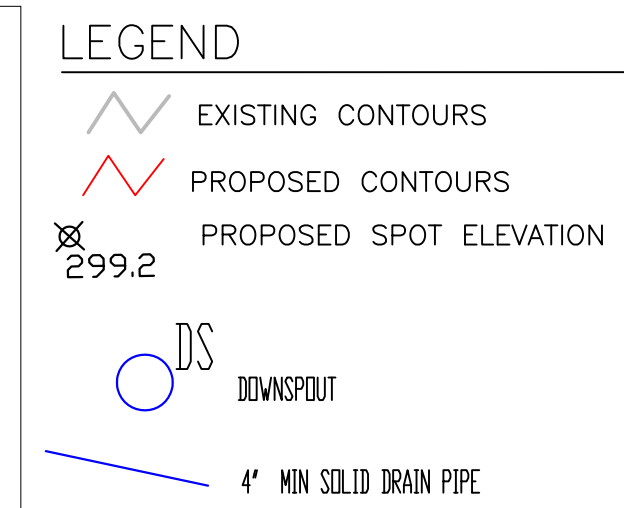
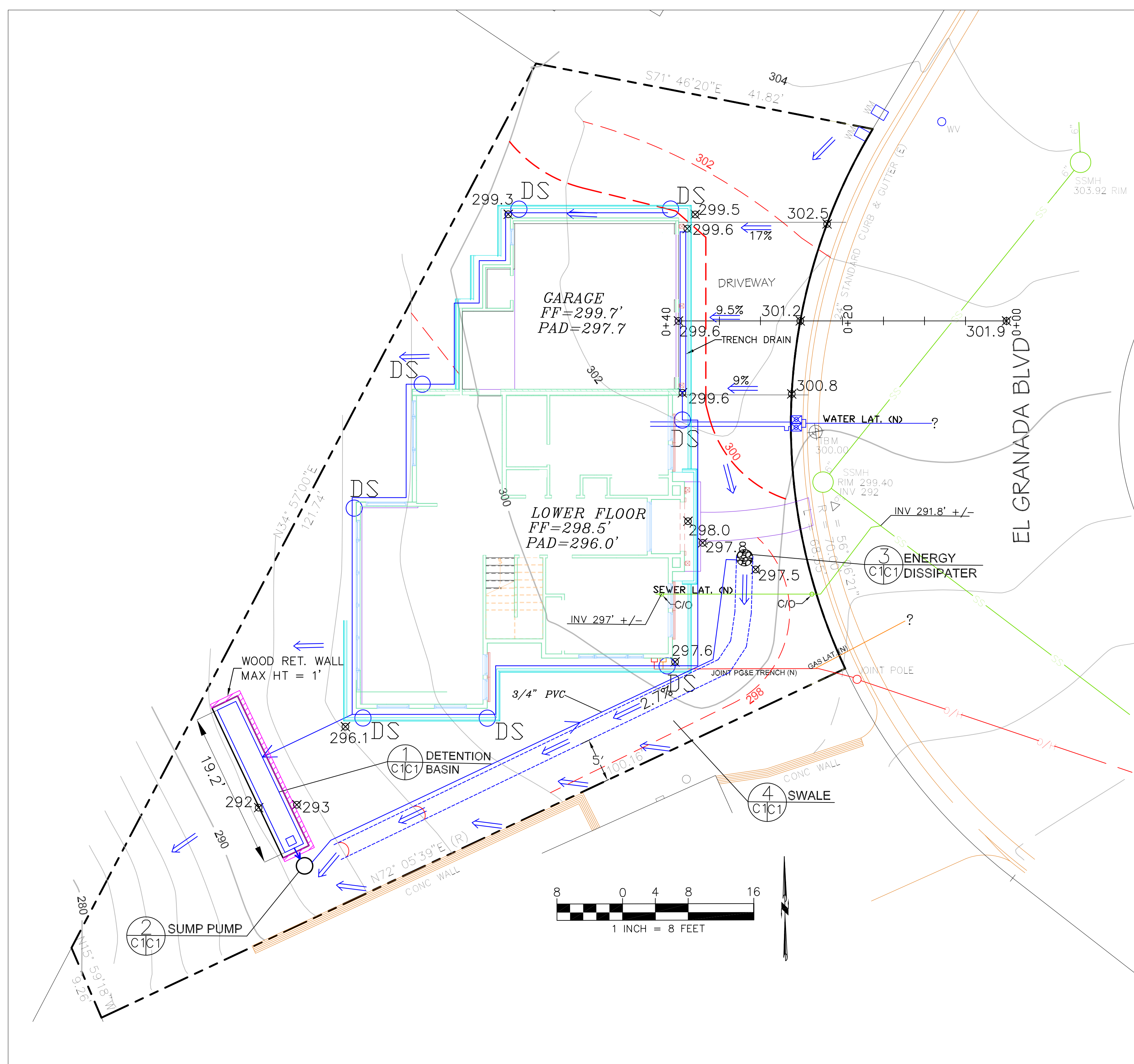
DRAWN: GMH

JOB: ZHENG

SHEET:

A0.04

OF SHEETS



GENERAL NOTES

- PLANS PREPARED AT THE REQUEST OF: WEI ZHENG, OWNER
- TOPOGRAPHY BY L. ARATA, SURVEYED NOVEMBER, 2015.
- THIS IS NOT A BOUNDARY SURVEY.
- ELEVATION DATUM ASSUMED.
- THE GEOTECHNICAL REPORT: **GEOTECHNICAL STUDY: ZHENG PROPERTY, EL GRANADA BOULEVARD, EL GRANADA, APN 047-151-120**; DATE: JULY 30, 2019, BY SIGMA PRIME GEOSCIENCES, JOB NUMBER 19-112. SHALL BE RETAINED ON THE CONSTRUCTION SITE. THE GEOTECHNICAL ENGINEER OF RECORD IS SIGMA PRIME GEOSCIENCES, INC. WITH THE CONTACT NUMBER (650)-728-3590. THE CONTRACTOR MUST NOTIFY THE GEOTECHNICAL ENGINEER OF RECORD AT LEAST 48 HOURS BEFORE CONSTRUCTION OF GEOTECHNICAL RELATED WORK. THE GEOTECHNICAL PART OF CONSTRUCTION WORK, INCLUDING BUT NOT LIMITED TO, ALL THE EARTHWORK AND FOUNDATION CONSTRUCTIONS, MUST SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER OF RECORD.
- STORMWATER MANAGEMENT CONSTRUCTION INSPECTIONS SHALL BE SCHEDULED FOR APPLICABLE DRAINAGE INSPECTIONS, WHICH INCLUDE SITE CLEARANCE AND EROSION CONTROL MEASURES INSTALLATION AS WELL AS INSPECTION OF MAJOR DRAINAGE CONTAINMENT, TREATMENT, AND CONVEYANCE DEVICES BEFORE BEING BURIED (INCLUDING REQUIRED MATERIAL LABELS, E.G. PIPES, SUG-BGRADE MATERIALS, ETC.). PLEASE FOLLOW THE INSPECTION CARD INSTRUCTIONS AND PHONE NUMBER (650-306-8405 EXT 181) TO SCHEDULE COUNTY DRAINAGE INSPECTIONS ACCORDINGLY. THERE SHALL BE THREE INSPECTIONS: ONE FOR EROSION CONTROL INSTALLATION, ONE BEFORE DRAINAGE FACILITIES ARE BURIED, AND ONE FOR FINAL WALK AROUND.

DRAINAGE NOTES

- DRAINAGE INTENT: IT IS THE INTENT OF THE DRAINAGE SYSTEM TO CONVEY ROOF RUNOFF TO A SAFE LOCATION, AND TO MINIMIZE EXCESSIVE MOISTURE AROUND FOUNDATIONS. DIRECT SLOPES SUCH THAT STORMWATER WILL NOT BE DIVERTED ONTO ADJACENT PROPERTIES.
- ALL DOWNSPOUT DRAIN LINES SHALL LEAD TO DETENTION BASIN, AS SHOWN. THE DETENTION BASIN SHALL BE WATER-TIGHT AND DRAIN TO SUMP PUMP THROUGH METERED OUTLET, AS SHOWN.
- ALL ROOF DRAINAGE PIPES SHALL BE 4" DIAMETER MINIMUM SOLID PIPE, SLOPED AT 1% MINIMUM.
- IT IS THE PROPERTY OWNER'S RESPONSIBILITY TO CHECK ON ALL STORMWATER FACILITIES SUCH AS ROOF GUTTERS, DOWNSPOUT LINES, AND THE DETENTION BASIN/SUMP PUMP/ENERGY DISSIPATER TO BE SURE THAT THEY ARE CLEAR OF EXCESSIVE DEBRIS AND OPERATING EFFICIENTLY. THE FACILITIES SHALL BE CHECKED EVERY FALL AND PERIODICALLY DURING THE RAINY SEASON.

GRADING NOTES

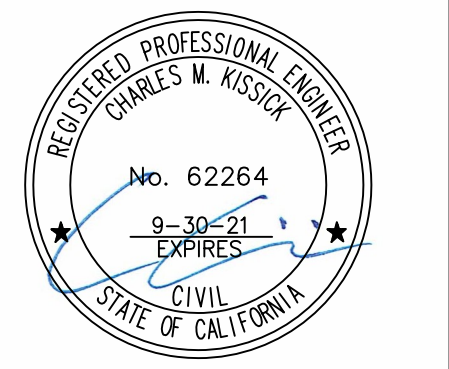
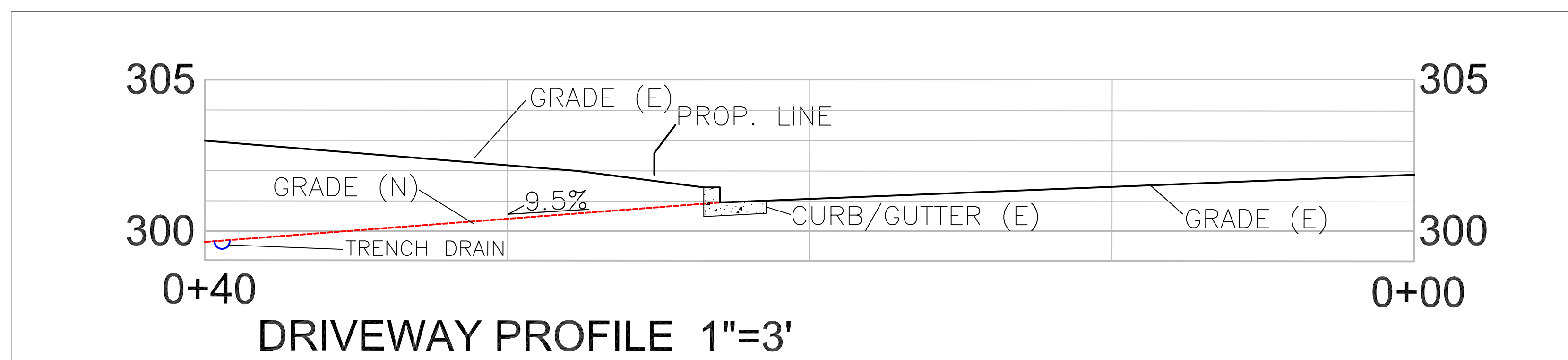
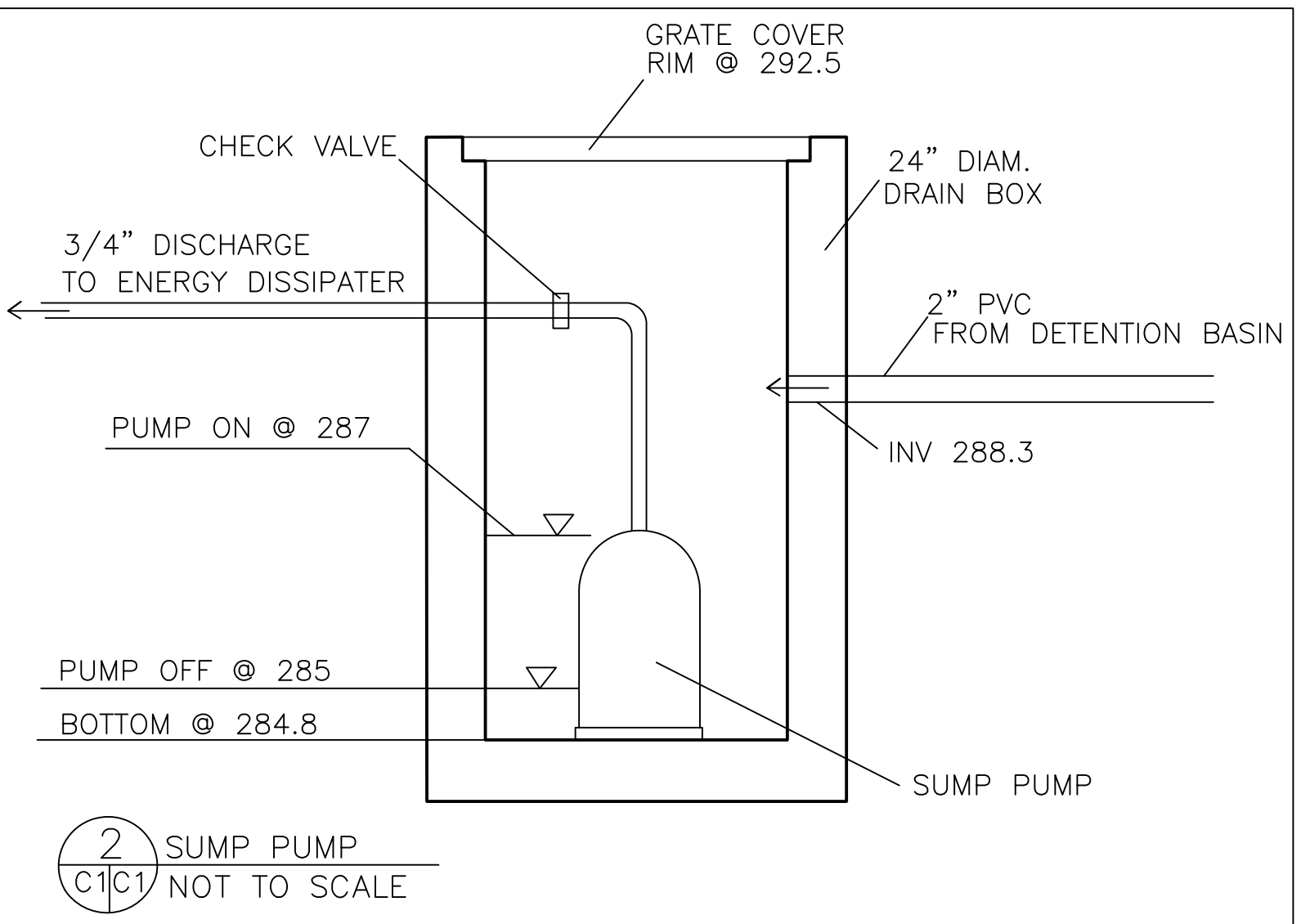
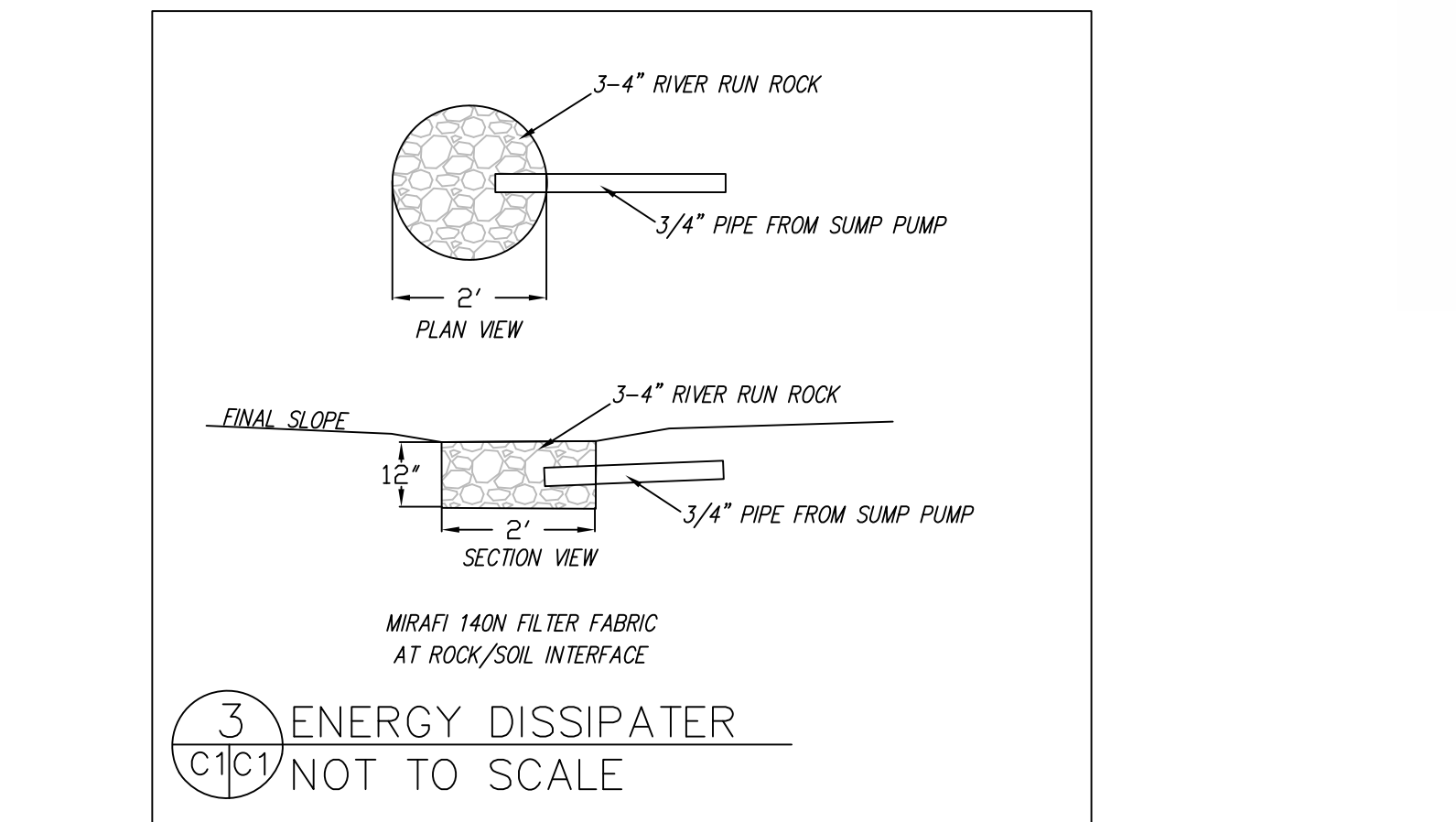
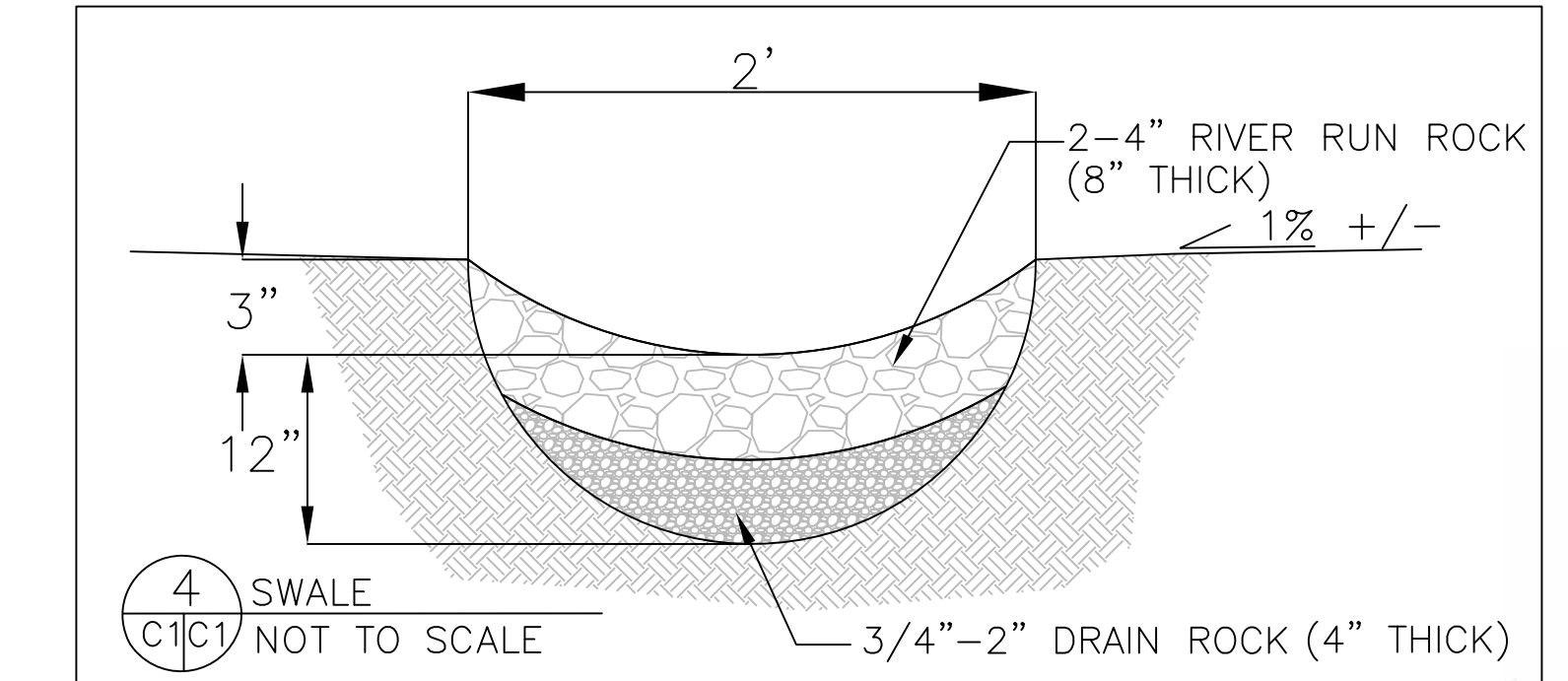
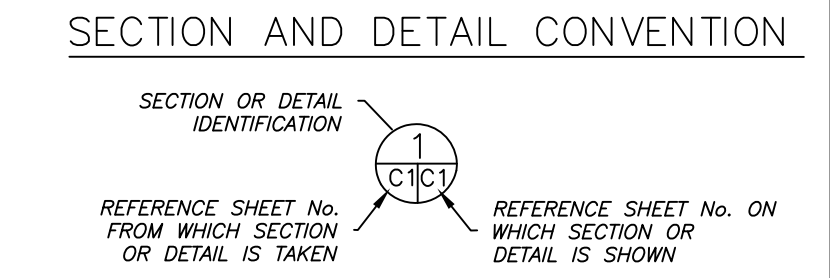
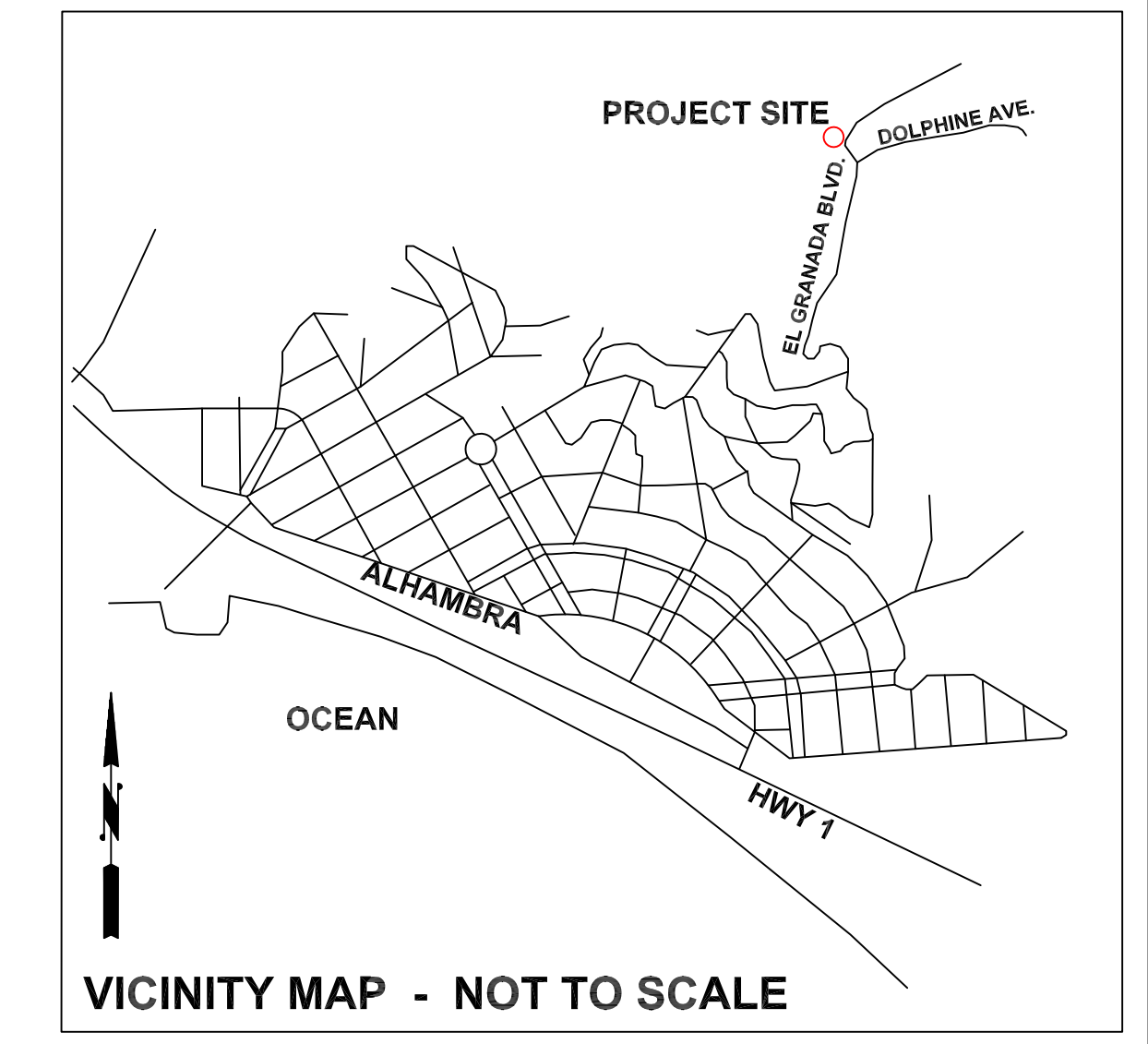
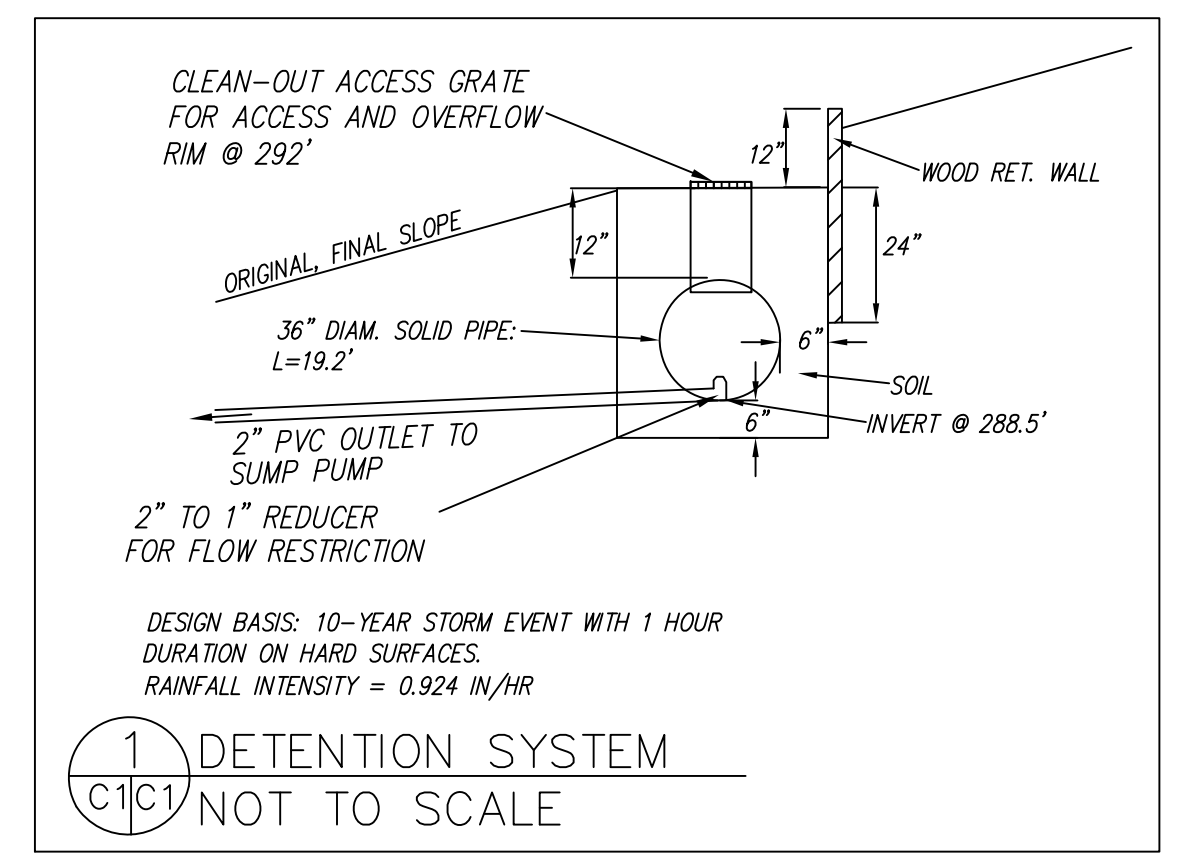
CUT VOLUME : 330 CY
 FILL VOLUME: 0 CY

VOLUMES ABOVE ARE APPROXIMATE.

THE SUBGRADE BELOW ALL PAVED AREAS SHALL BE BASEROCK COMPACTED TO 95%.

ALL GRADING SHALL CONFORM TO LOCAL CODES AND ORDINANCES.

ALL TRENCHES UNDER PROPOSED PAVED AREAS OR CONCRETE SHALL BE BACKFILLED TO SUBGRADE ELEVATION WITH COMPACTED APPROVED GRANULAR MATERIALS. IF TRENCHES ARE IN PROPOSED LANDSCAPE AREAS, THEY SHALL BE BACKFILLED WITH COMPACTED APPROVED GRANULAR MATERIAL TO WITHIN ONE FOOT OF FINISHED GRADE, AND THEN FILLED WITH HAND TAMPED SOILS.



Sigma Prime Geosciences, Inc.
 SIGMA PRIME GEOSCIENCES, INC.
 332 PRINCETON AVENUE
 FULLERTON, CA 92709
 (714) 778-3590
 FAX: 726-3595

DATE: 6-24-20	DRAWN BY: CMK	CHECKED BY: AZG	REV. DATE:	REV. DATE:	REV. DATE:
GRADING AND DRAINAGE PLAN					
ZHENG PROPERTY EL GRANADA BLVD. EL GRANADA APN 047-151-120					
SHEET C-1					



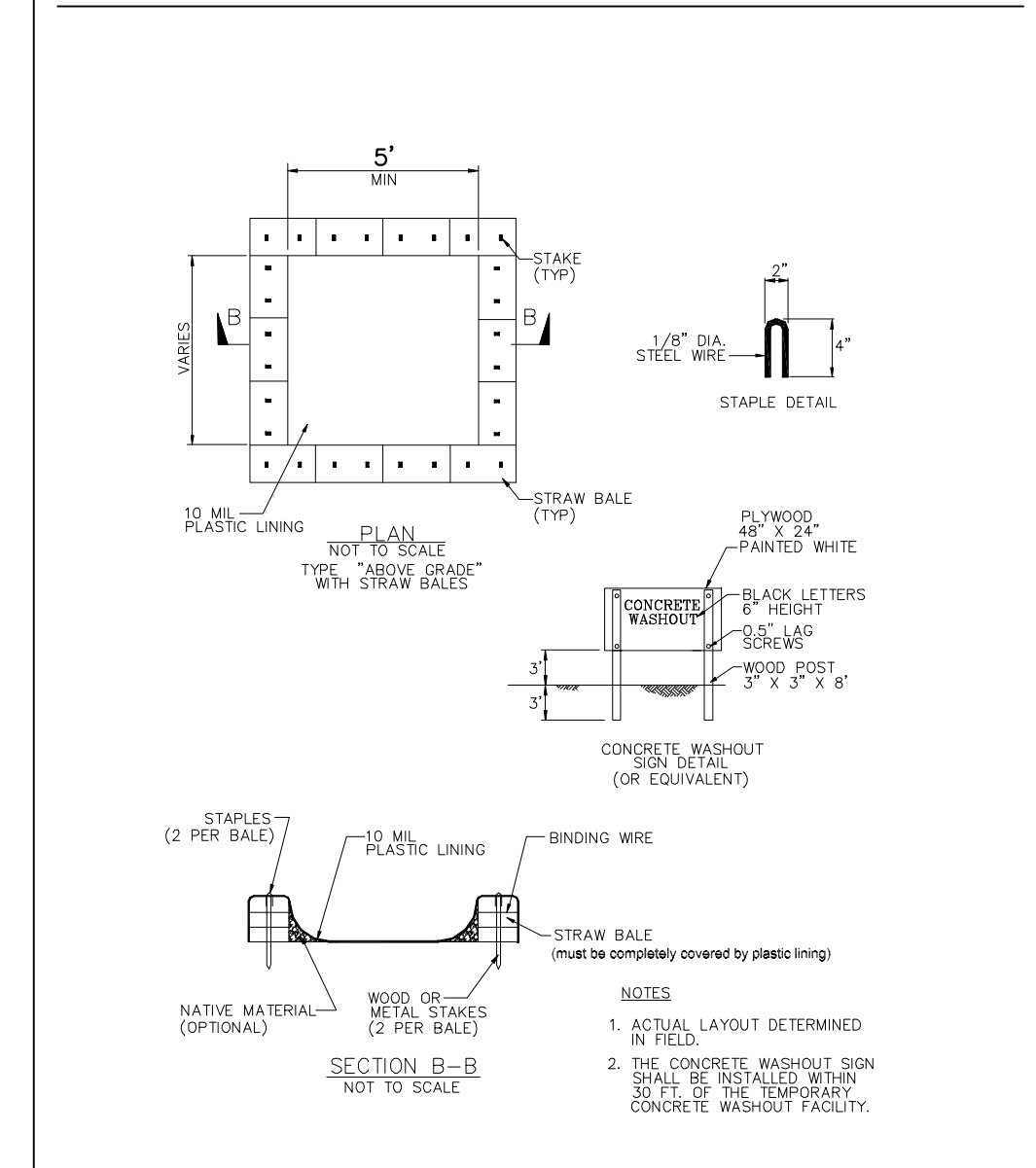
EROSION CONTROL NOTES

- FIBER ROLL**
INSTALL AT LOCATIONS SHOWN.
AFIX AS SHOWN IN DETAIL SE-5
1. GRADING MAY TAKE PLACE DURING WET WEATHER AFTER OCTOBER 1 PROVIDED THE FOLLOWING PROVISIONS ARE FOLLOWED.
 2. NO GRADING SHALL TAKE PLACE DURING RAINY WEATHER OR FOR A PERIOD OF AT LEAST 24 HOURS FOLLOWING RAIN.
 3. ALL EXPOSED SOIL SHALL BE TEMPORARILY PROTECTED FROM EROSION WITH JUTE NETTING.
 4. ALL STOCKPILED SOIL SHALL BE COVERED AT ALL TIMES AND REMOVED FROM SITE AS SOON AS POSSIBLE, IF SCHEDULED FOR OFF-HAUL.
 5. ALL EXPOSED SURFACES SHALL BE PERMANENTLY PROTECTED FROM EROSION WITH SEEDING AND/OR LANDSCAPING. SEED MIX SHALL BE 75 LB PER ACRE ANNUAL RYGRASS OR APPROVED SUBSTITUTE. SEED SHALL BE COVERED WITH STRAW MULCH AT A RATE OF 2 TONS/ACRE.
 6. ROCKED CONSTRUCTION ENTRANCE SHALL BE 18.5 FEET LONG BY 12 FEET WIDE AND CONFORM TO THE FOLLOWING:
 - A. THE MATERIAL FOR THE PAD SHALL BE 3 TO 6 INCH STONE.
 - B. PAD SHALL BE NOT LESS THAN 12" THICK.
 - C. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
 - D. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA THAT DRAINS TO THE CONCRETE WASHOUT AREA.
 7. CONCRETE WASHOUT AREA SHALL BE SURROUNDED BY A SINGLE LAYER OF SAND BAGS TO CONTAIN FLUIDS. CHANNEL INTO AREA SHALL BE CLEARED TO ALLOW TIRE DEBRIS (SEE NOTE 6.D. ABOVE)

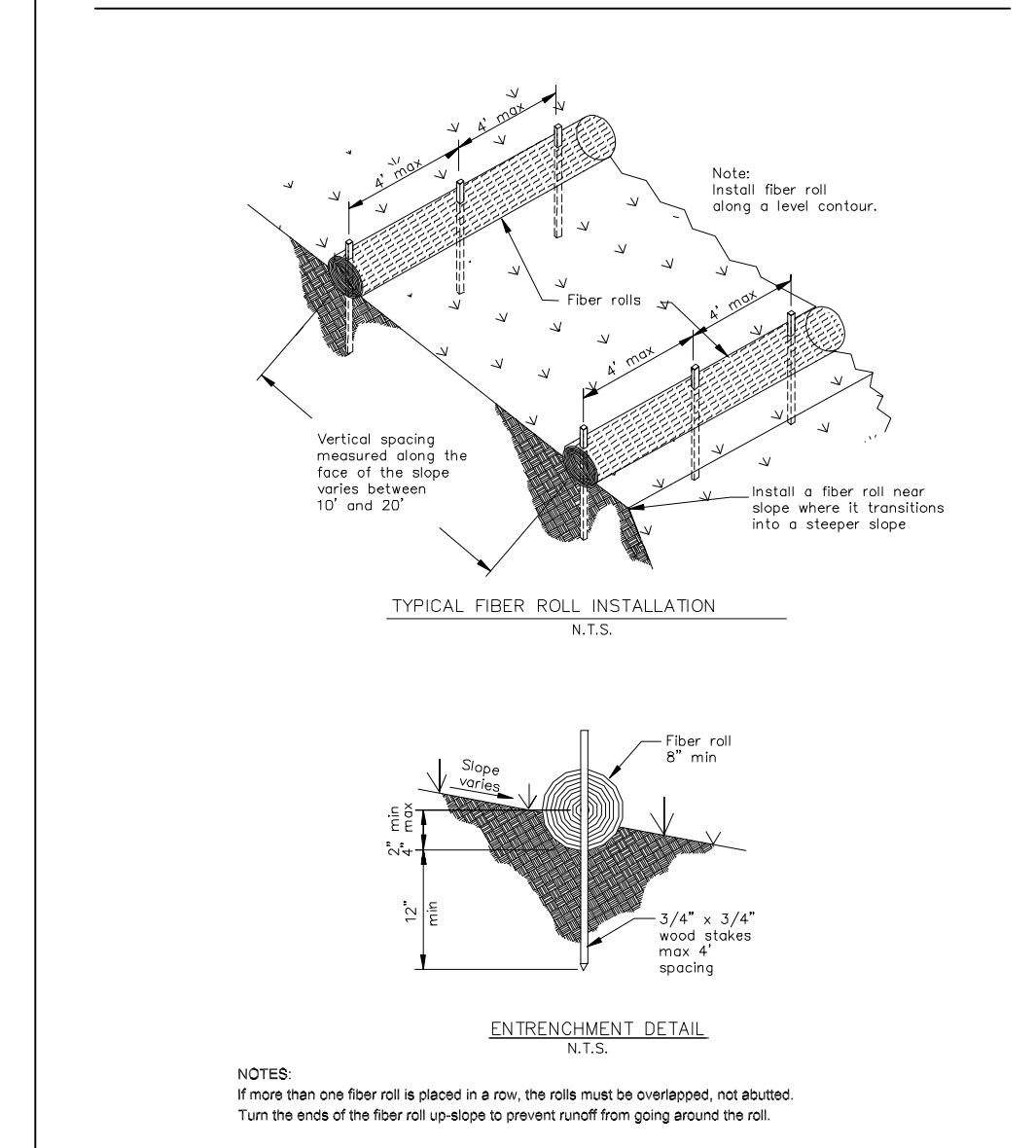
GENERAL EROSION AND SEDIMENT CONTROL NOTES

- There will be no stockpiling of soil. All excavated soil will be hauled off-site as it is excavated.
- Perform clearing and earth-moving activities only during dry weather. Measures to ensure adequate erosion and sediment control shall be installed prior to earth-moving activities and construction.
- Erosion control materials to be on-site during off-season.
- Measures to ensure adequate erosion and sediment control are required year-round. Stabilize all denuded areas and maintain erosion control measures continuously between October 1 and April 30.
- Store, handle, and dispose of construction materials and wastes properly, so as to prevent their contact with stormwater.
- Control and prevent the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.
- Avoid cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
- Limit and time applications of pesticides and fertilizers to prevent polluted runoff.
- Limit construction access routes to stabilized, designated access points
- Avoid tracking dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.
- Train and provide instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.
- Placement of erosion materials is required on weekends and during rain events.
- The areas delineated on the plans for parking, grubbing, storage etc., shall not be enlarged or "run over."
- Dust control is required year-round.
- Erosion control materials shall be stored on-site.
- There are no trees or driplines on the site.

CONCRETE WASTE MANAGEMENT WM-8



FIBER ROLLS SE-5



EROSION CONTROL POINT OF CONTACT

THIS PERSON WILL BE RESPONSIBLE FOR EROSION CONTROL AT THE SITE AND WILL BE THE COUNTY'S MAIN POINT OF CONTACT IF CORRECTIONS ARE REQUIRED:

NAME: WEI ZHENG
 TITLE/QUALIFICATION: OWNER
 PHONE: 650-862-8323
 PHONE:
 E-MAIL: ATLASFIVE@GMAIL.COM



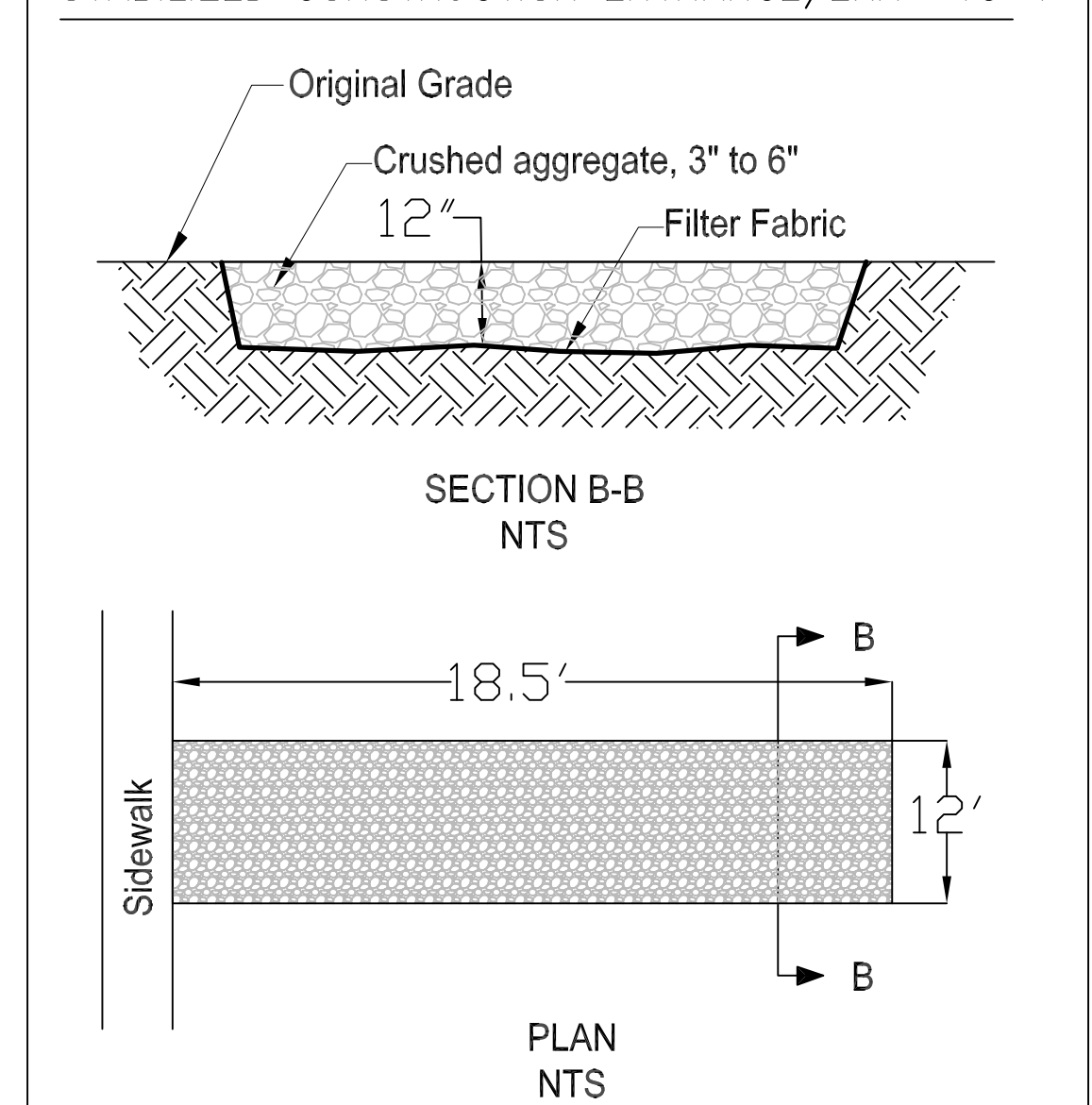
Stigma Prime Geosciences, Inc.
 SIGMA PRIME GEOSCIENCES, INC.
 332 PRINCETON AVENUE
 HALF MOON BAY, CA 94019
 (650) 728-3590
 FAX 728-3593

DATE: 6-24-20
 DRAWN BY: CMK
 CHECKED BY: AZG
 REV. DATE:
 REV. DATE:
 REV. DATE:

EROSION AND SEDIMENT CONTROL PLAN
 ZHENG PROPERTY
 EL GRANADA BLVD.
 EL GRANADA
 APN 047-151-120

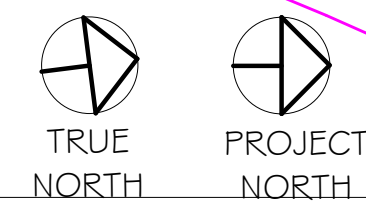
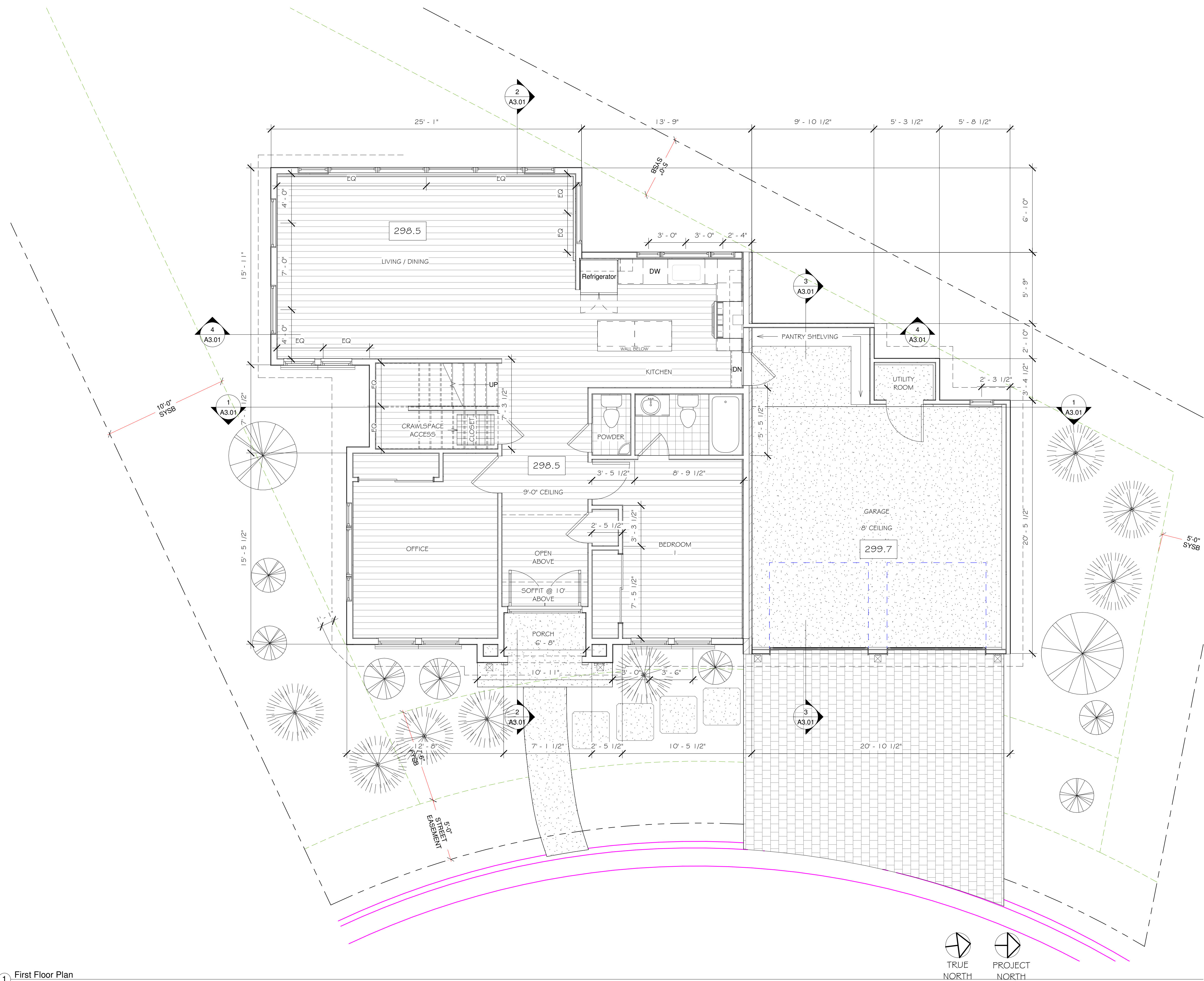
SHEET
C-2

STABILIZED CONSTRUCTION ENTRANCE/EXIT TC-1



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1 First Floor Plan
1/4" = 1'-0"



REVISIONS

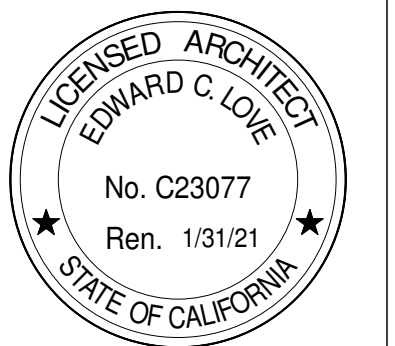


EDWARD C. LOVE, ARCHITECT

Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

First Floor Plan



DATE: 03/02/20

SCALE: 1/4" = 1'-0"

DRAWN: GMH

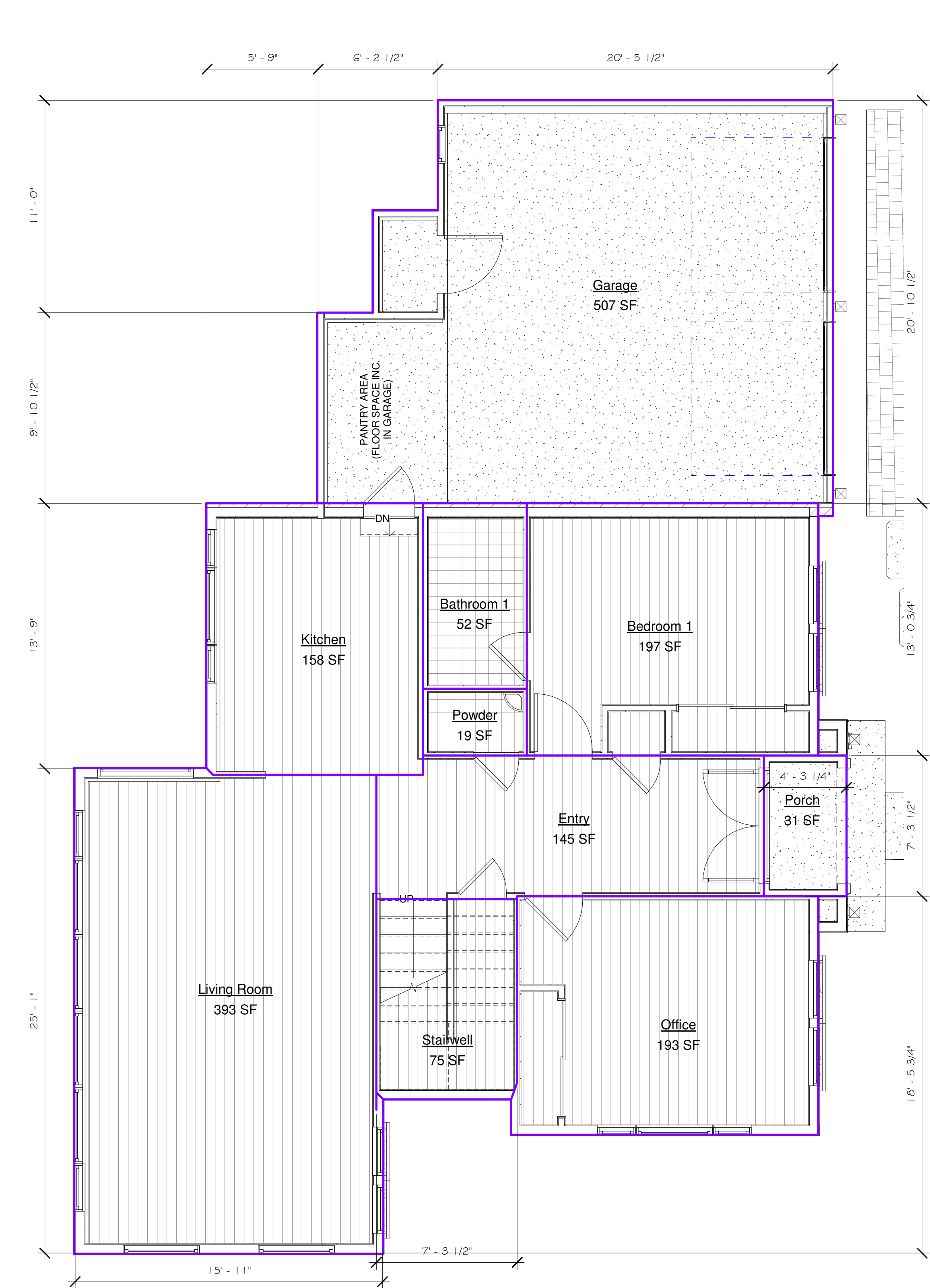
JOB: ZHENG

SHEET:

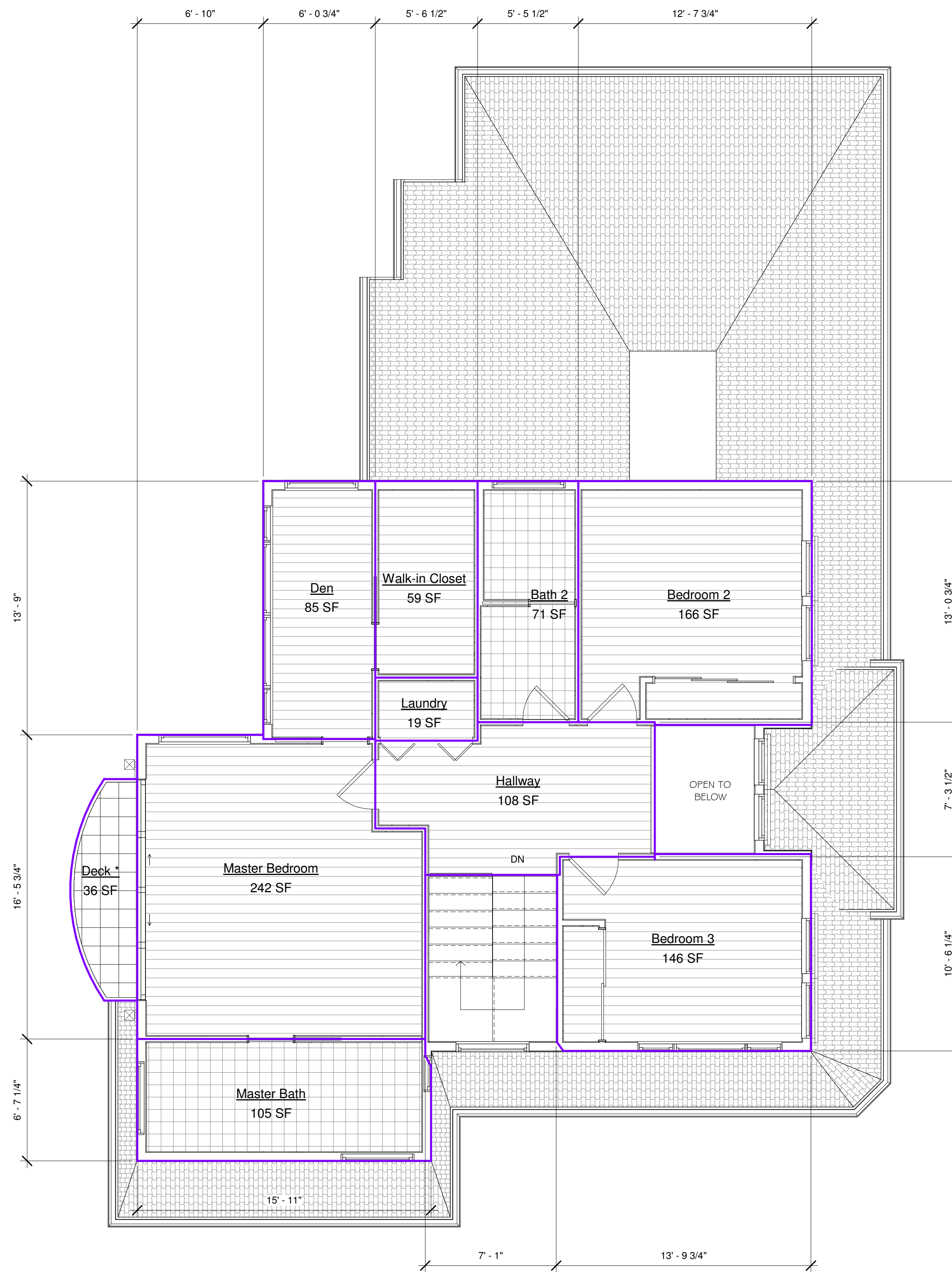
A1.01

OF SHEETS

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① DD - Level 1 - First Floor
1/4" = 1'-0"



② DD - Level 2 - Second Floor
1/4" = 1'-0"

Area Schedule (Rentable)	
Name	Area

W - Level 1 - First Floor	
Bathroom 1	52 SF
Bedroom 1	197 SF
Entry	145 SF
Garage	507 SF
Kitchen	158 SF
Living Room	393 SF
Office	193 SF
Porch	31 SF
Powder	19 SF
Stairwell	75 SF

W - Level 2 - Second Floor	
Bath 2	71 SF
Bedroom 2	166 SF
Bedroom 3	146 SF
Deck *	36 SF
Den	85 SF
Hallway	108 SF
Laundry	19 SF
Master Bath	105 SF
Master Bedroom	242 SF
Walk-in Closet	59 SF

* COUNTED IN LOT COVERAGE ONLY
 FIRST FLOOR AREA : 1770
 SECOND FLOOR AREA : 1001
 TOTAL FLOOR AREA : 2771

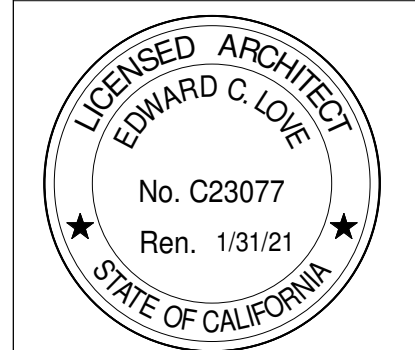
REVISIONS



Edward C. Love
 Architect
 720 MILL STREET
 HALF MOON BAY, CA 94019
 (650) 728-7615
 edwardclovearch@gmail.com

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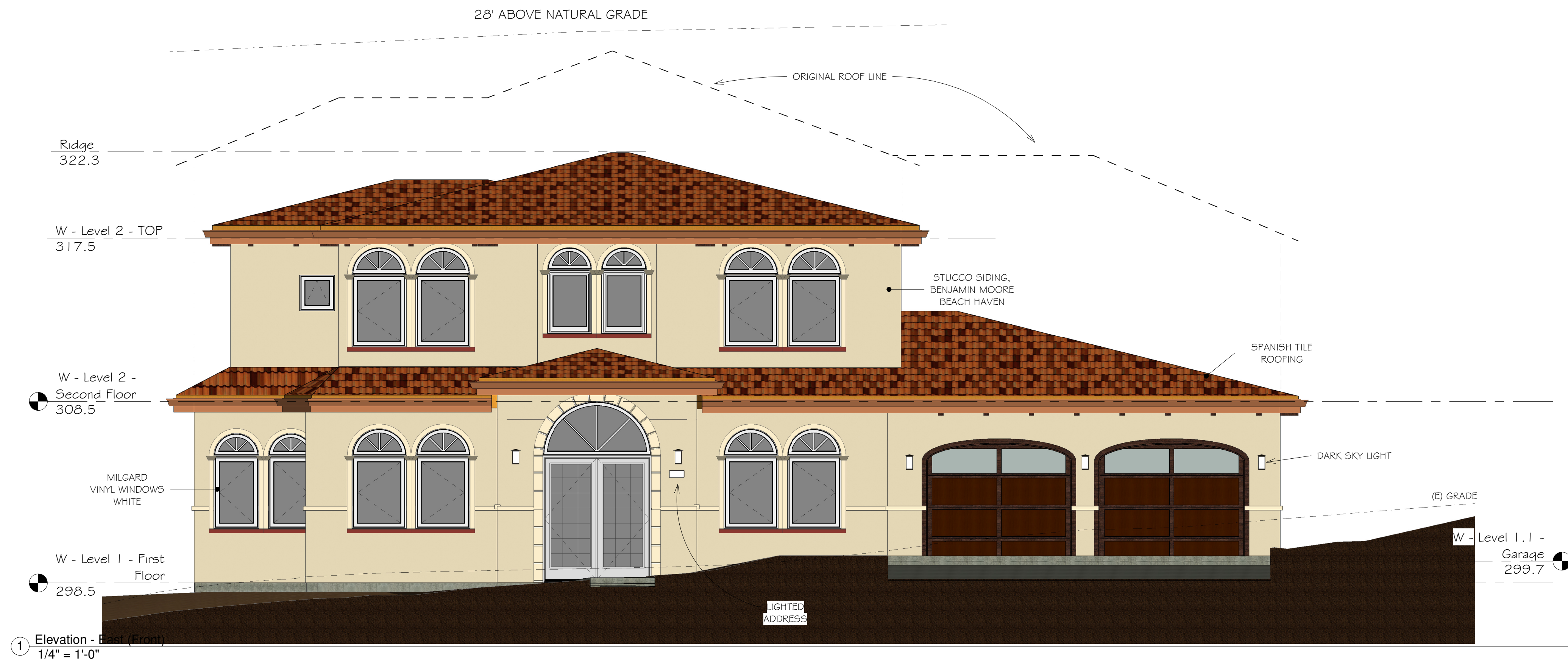
Floor Area Plan



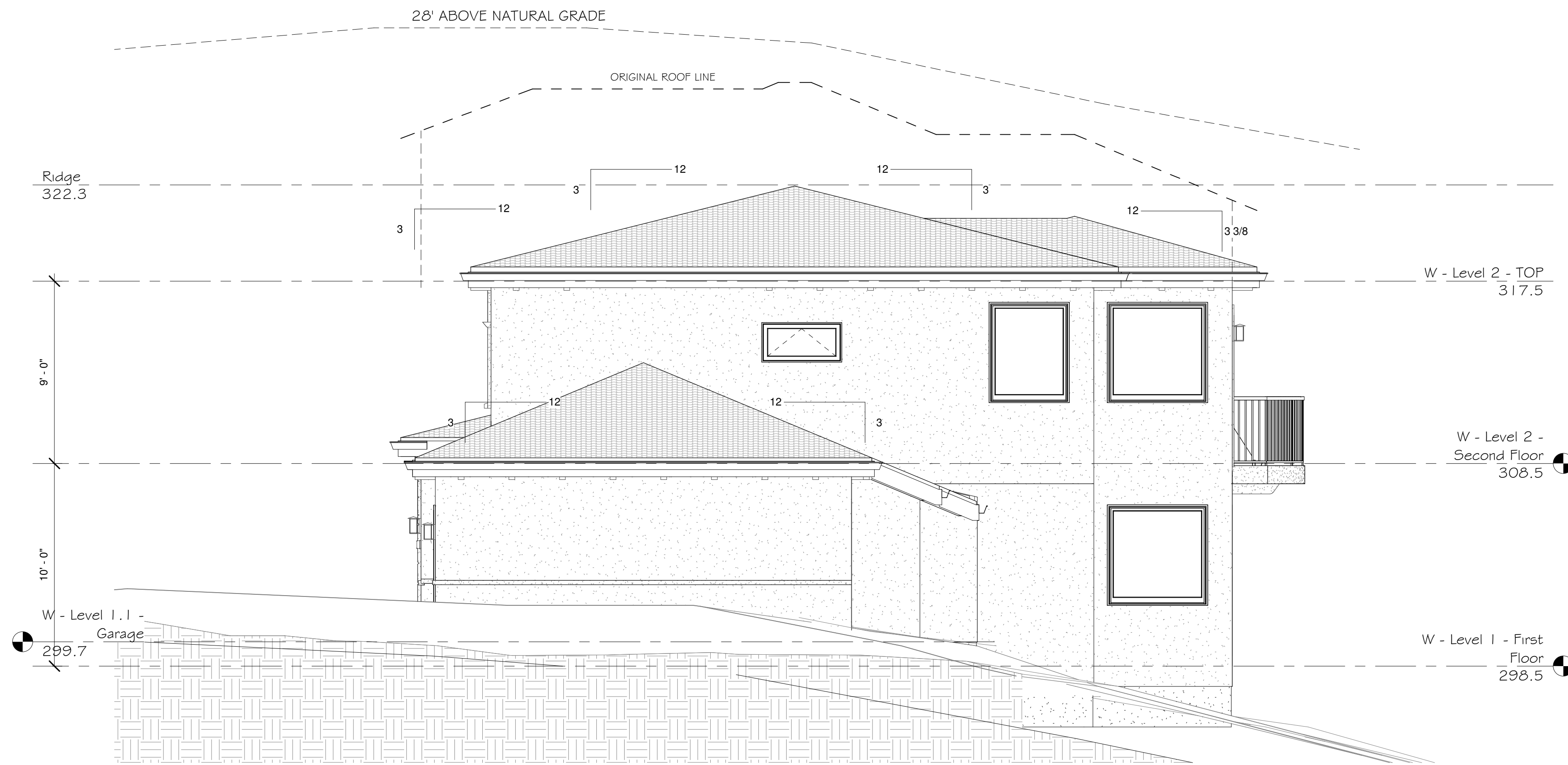
DATE: 03/02/20
 SCALE: 1/4" = 1'-0"
 DRAWN: GMH
 JOB: ZHENG

SHEET:
A1.03
 OF SHEETS

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① Elevation - East (Front)
1/4" = 1'-0"



② Elevation - North (Right)
1/4" = 1'-0"

--- SHOWS PREVIOUS DESIGN ROOF LINE

REVISIONS

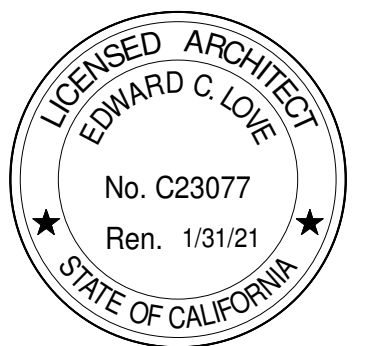


EDWARD C. LOVE, ARCHITECT

Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Elevations - East &
North



DATE: 03/02/20

SCALE: 1/4" = 1'-0"

DRAWN: GMH

JOB: ZHENG

SHEET:

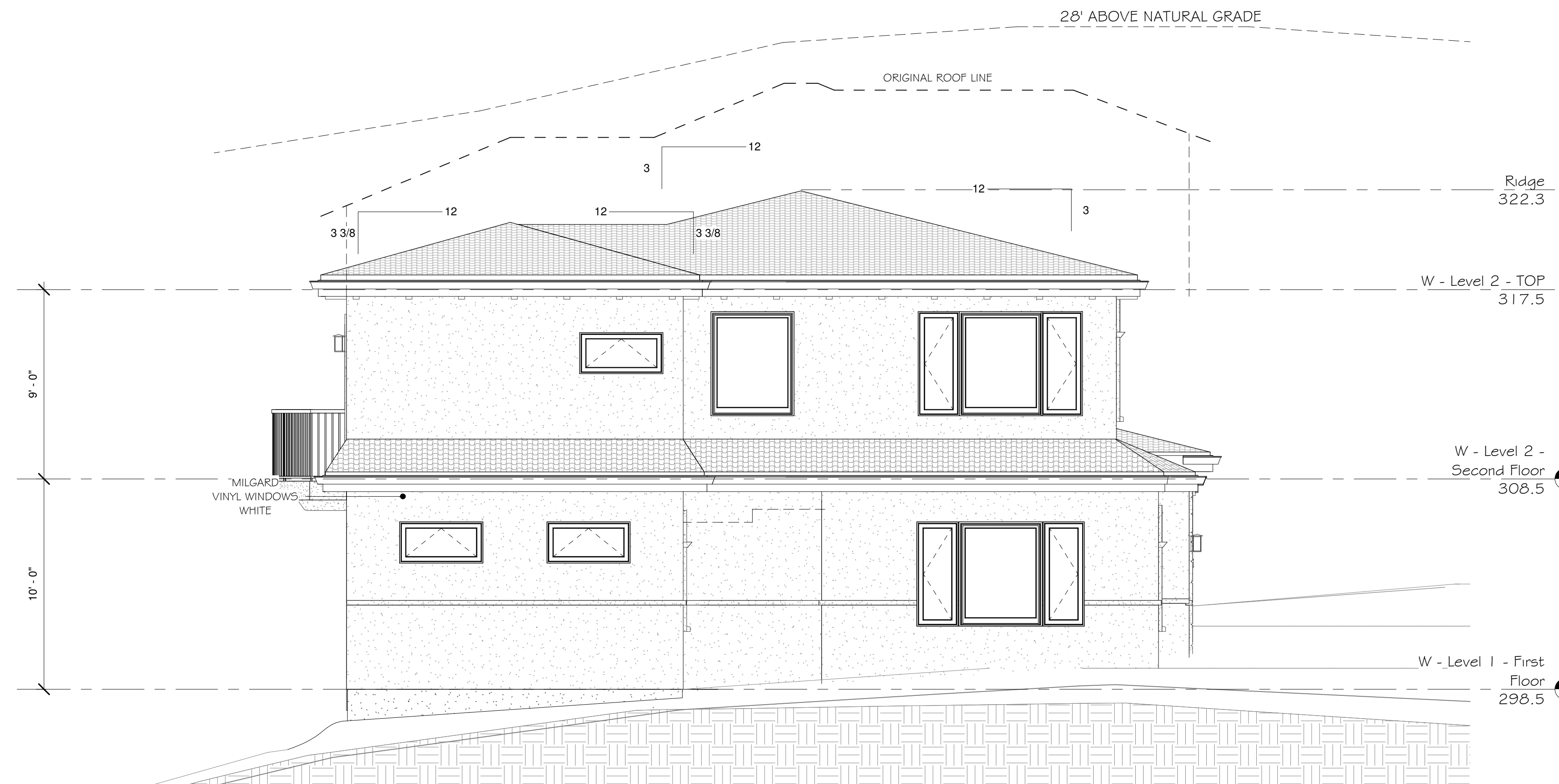
A2.01

OF SHEETS

S:\Client Projects\2017\Zheng\Revit\Zheng-Working.rvt



① Elevation - West (Rear)
1/4" = 1'-0"



② Elevation - South (Left)
1/4" = 1'-0"

REVISIONS

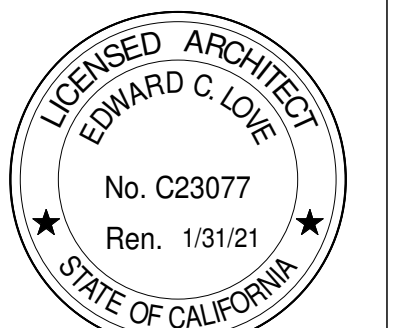


EDWARD C. LOVE, ARCHITECT

Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Elevations - West &
South



DATE: 03/02/20

SCALE: 1/4" = 1'-0"

DRAWN: GMH

JOB: ZHENG

SHEET:

A2.02

OF SHEETS

REVISIONS

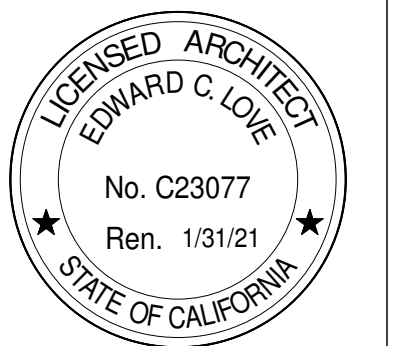


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Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

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El Granada Blvd
El Granada, CA

Sections



DATE: 03/02/20

SCALE: 1/4" = 1'-0"

DRAWN: GMH

JOB: ZHENG

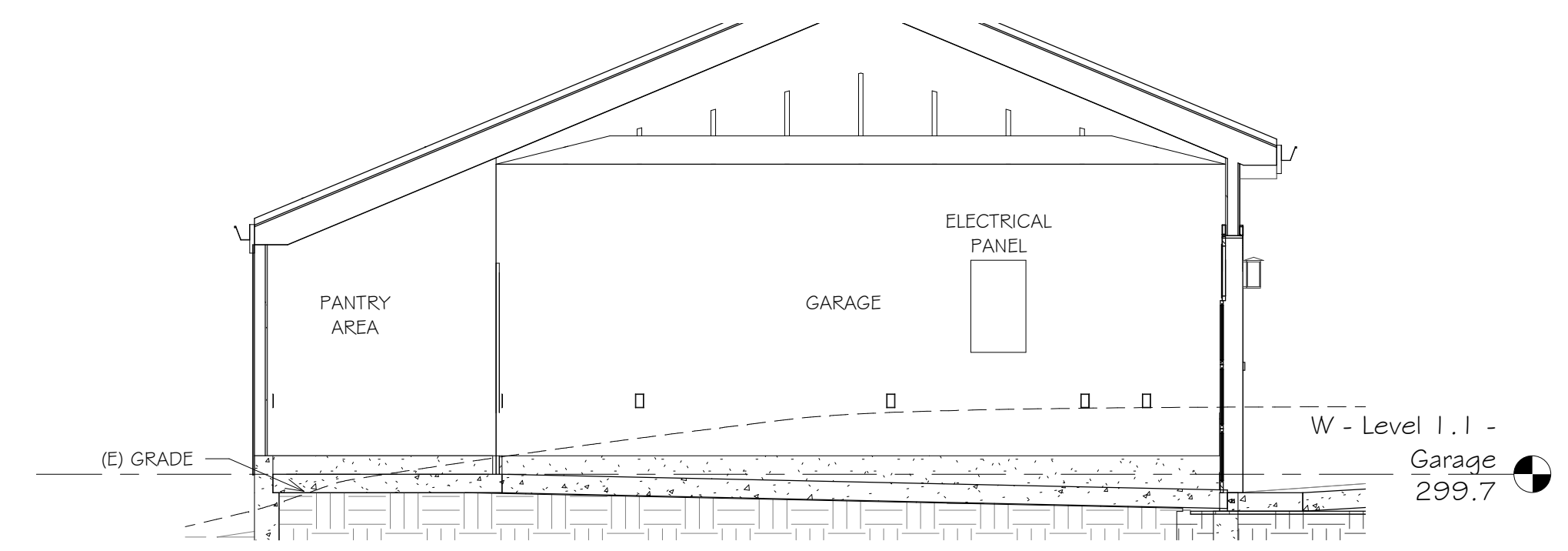
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A3.01

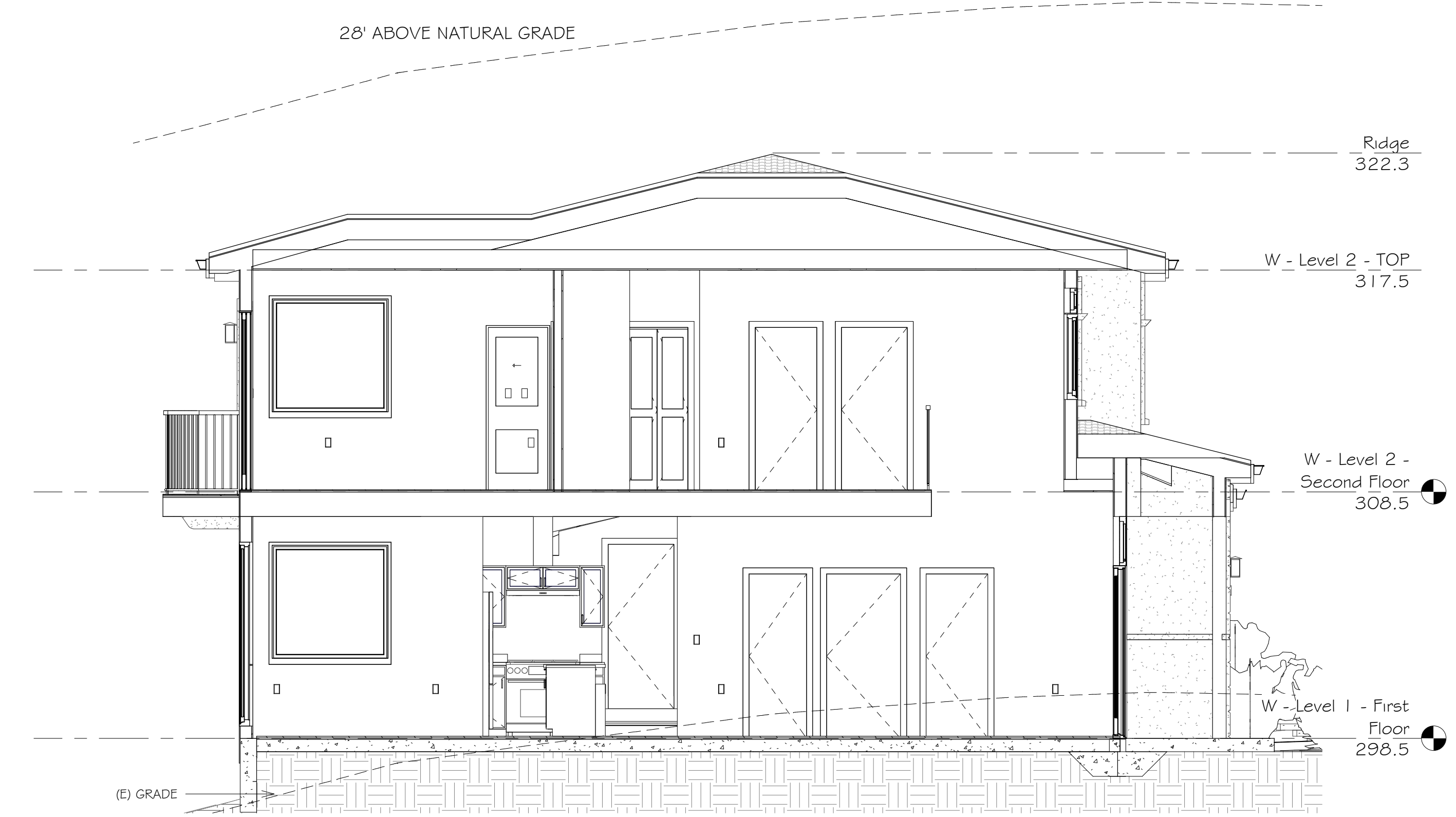
OF SHEETS



1 DD - Section 1
1/4" = 1'-0"



3 DD - Section 3
1/4" = 1'-0"



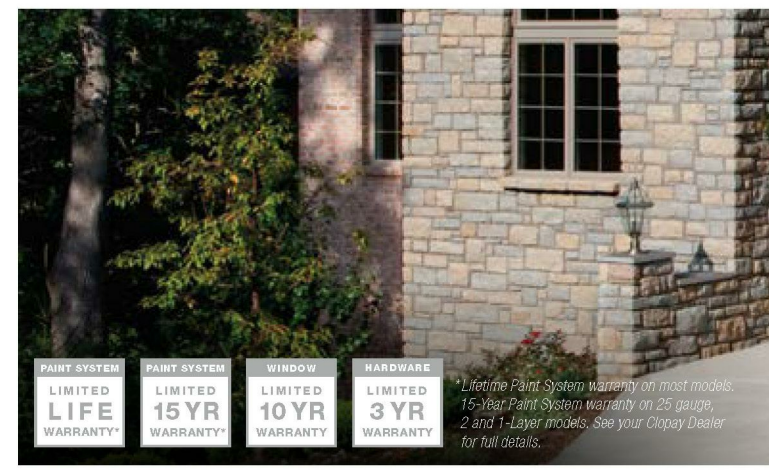
2 DD - Section 2
1/4" = 1'-0"



4 DD - Section 4
1/4" = 1'-0"

S:\Client Projects\2017\Zheng\Revit\Zheng-Working.rvt

GALLERY® collection



Constructed of durable steel, this vintage style line is available in long or short grooved panel designs with various windows, colors and hardware options to create that one-of-a-kind look.

- STYLE AND CONSTRUCTION**
- Hot-dipped galvanized steel skin with a baked-on primer and top coat helps ensure durability and long-lasting beauty.
 - IntellioCore® polyurethane or polystyrene insulation with R-values ranging from 18.4 to 6.3.
 - Windows are standard with double strength clear glass and have optional snap-in grilles. Other glass options are available, see opposite page for available options.
 - Section joints and bottom weatherseal in a rust-resistant aluminum retainer help seal out the elements.

Calculated door section R-value is in accordance with (SASIB) 705-163.

COLOR OPTIONS



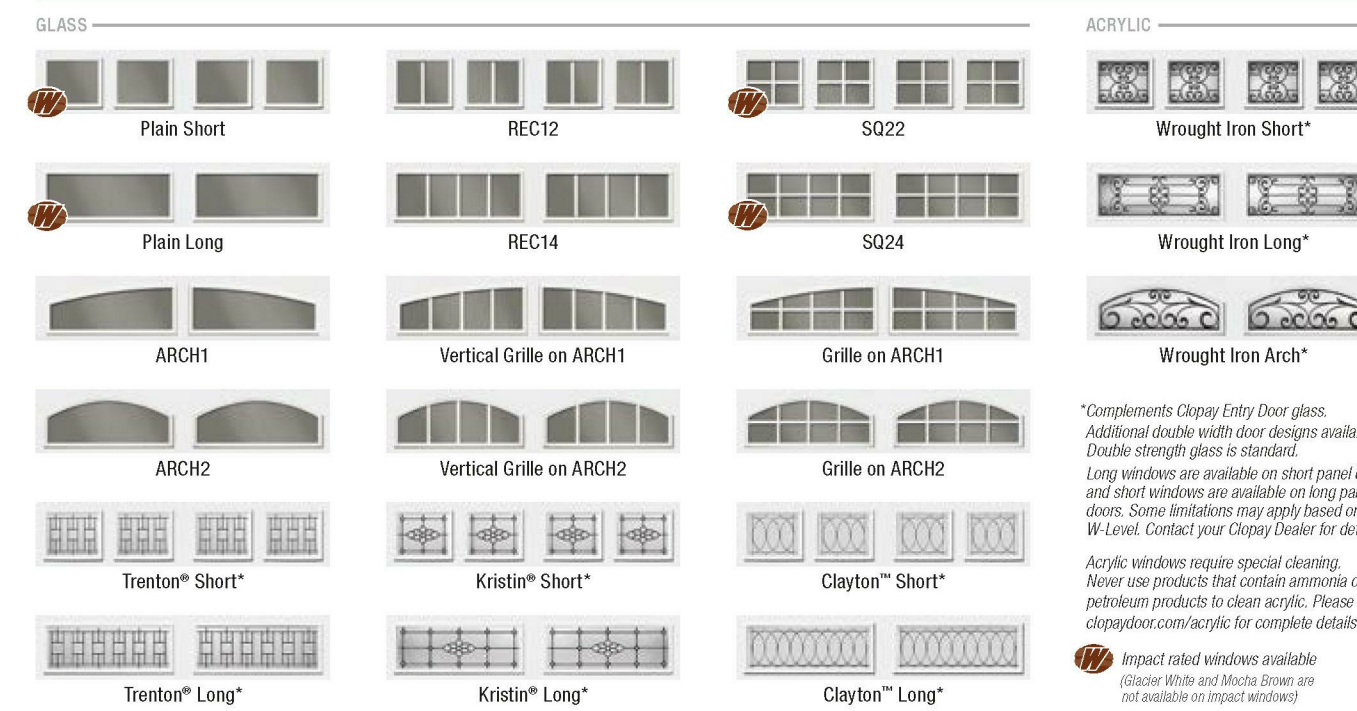
Due to the printing process, color may vary. Not available on all models. Complete color availability can be found on page 32. Popular in select markets, Glacier White is a lighter shade. Ultra-Grain® is a clear woodgrain paint coating offering the beauty of stained wood without the upkeep. Ultra-Grain® does not have a stain finish.

MODEL SPECIFICATIONS									
MODEL	GD2SU	GD2LU	GD1SU	GD1LU	GD2SP	GD2LP	GD1SP	GD1LP	
Panel Style	Short	Long	Short	Long	Short	Long	Short	Long	
Insulation	2" Polyurethane	2" Polyurethane	1-3/8" Polyurethane	1-3/8" Polyurethane	2" Bonded Polystyrene	2" Bonded Polystyrene	Bonded Polystyrene	Bonded Polystyrene	
Construction	3-Layer	3-Layer	3-Layer	3-Layer	3-Layer	3-Layer	3-Layer	3-Layer	
R-value	18.4	18.4	12.9	12.9	9.0	9.0	6.5	6.5	

GALLERY® collection



WINDOW OPTIONS



SPECIALTY GLASS OPTIONS



MODEL SPECIFICATIONS						
MODEL	GD4S	GD4L	GD4SV	GD4LV	GD5S	GD5LV
Panel Style	Short	Long	Short	Long	Short	Short
Insulation	Non-Insulated	Non-Insulated	Polystyrene	Polystyrene	Non-Insulated	Polystyrene
Construction	1-Layer	1-Layer	2-Layer	2-Layer	1-Layer	2-Layer
R-value	N/A	N/A	6.3	6.3	N/A	6.3



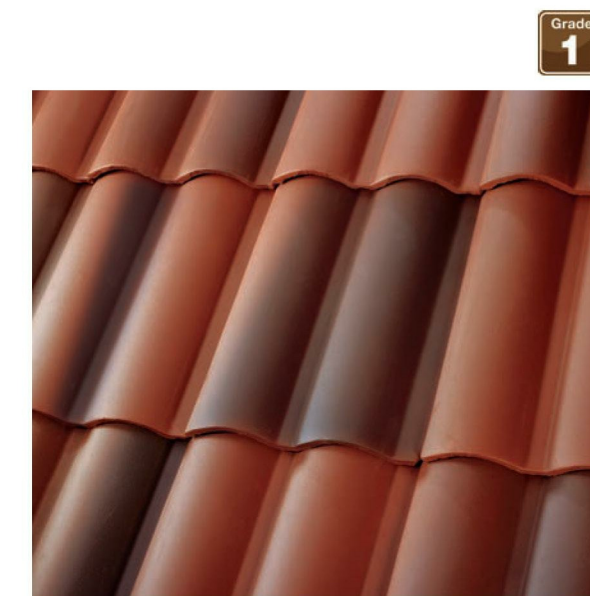
Santa Barbara Dark Sky is a traditional, craftsman/mission style collection from Maxim Lighting in Sienna finish with Mocha glass. Designed to meet the requirements of Dark Sky, these fixtures preserve and protect the nighttime environment and the heritage of dark skies through quality outdoor lighting.

Specifications			
Dimensions			
Product Depth (in.)	10.88	Product Height (in.)	22.63
Product Length (in.)	10.88	Product Width (in.)	9.13
Details			
Exterior Lighting Product Type	Outdoor Lanterns	Fixture Color/Finish	Sienna
Fixture Material	Aluminum	Glass/Lens Type	Water glass
Included	Hardware Included	Light Bulb Type Included	No Bulbs Included
Maximum Bulb Wattage	100 W	Maximum Wattage (watts)	100
Number of Bulbs Required	1	Outdoor Lighting Features	Weather Resistant
Light Bulb Shape Code	A19		
Power Type	Hardwired		
Product Weight (lb.)	6.00lb		
Style	Mission, Classic		

US Tile by Boral®
Build something great™



PRODUCT INFORMATION



Profile: **ClayMax®**
Color Name: **Newport Blend**
SKU Number: **2UMDU7040**
Product Type: **Lightweight**
Color: **Black, Red Multicolor**

Title Specifications
Size: **18" x 13"**
Coverage: **88**
Approx. Installed Weight: **580 lbs**
Pieces per Pallet: **418**
Squares per Pallet: **4.75**
Approx. Weight per Pallet: **2900 lbs**

Cool Rated Product
Reflectivity: **0.19**
Aged Ref. (3 yr): **0.19***
Emmissivity: **0.86**
Aged Em. (3 yr) **pending**
SRI: **16**
Aged SRI (3 yr): **16***
CRRC ID#: **0160a**
Seller ID#: **0942**

*Calculated Aged Value
The printed color shown here may vary from actual available tile color and should not be used to color match. Please contact your local Sales Representative for actual tile samples.

1.800.669.TILE (8453)
www.BoralRoof.com

	Initial	Weathered
Solar Reflectance	0.19	0.19*
Thermal Emittance	0.86	pending
Rated Product ID Number	0160a	
Licensed Seller ID Number	0942	
Classification	Production Line	

Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.
Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.

REVISIONS

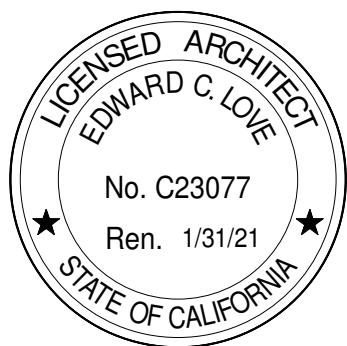


EDWARD C. LOVE, ARCHITECT

Edward C. Love
Architect
720 MILL STREET
HALF MOON BAY, CA 94019
(650) 728-7615
edwardclovearch@gmail.com

New Residence for
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El Granada Blvd
El Granada, CA

Product Sheets



DATE: 03/02/20

SCALE:

DRAWN: GMH

JOB: ZHENG

SHEET:

A7.01

OF SHEETS

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO)

SHORT FORM PRESCRIPTIVE COMPLIANCE

JERRY WHITING
340 PURISSIMA ST.
HALF MOON BAY, CA 94019
JLODAP@MWHUB.COM

ZHENG DESIGN
EL GRANADA BLVD.
EL GRANADA
DATE: 3/7/19

THIS PROJECT DOES INCORPORATE LANDSCAPING EQUAL TO OR LESS THAN 2500 SQ. FT. AND WILL BE USING THIS FORM TO IDENTIFY PRESCRIPTIVE REQUIREMENTS WHICH WILL BE INCLUDED AS PART OF THE LANDSCAPE PROJECT. TOTAL LANDSCAPE AREA: 12,100 SQ. FT. TURF AREA: N/A. SPECIA LANDSCAPE AREA: N/A.

WATER TYPE: POTABLE
NAME OF WATER FURNISHER: CCW

I CERTIFY THE ABOVE IS CORRECT AND AGREE TO COMPLY WITH THE REQUIREMENTS OF THE MWELO.

Jerry Whiting 3/7/19

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE PRESCRIPTIVE COMPLIANCE OPTION OF THE MWELO PER APPENDIX D

Jerry Whiting 3/7/19

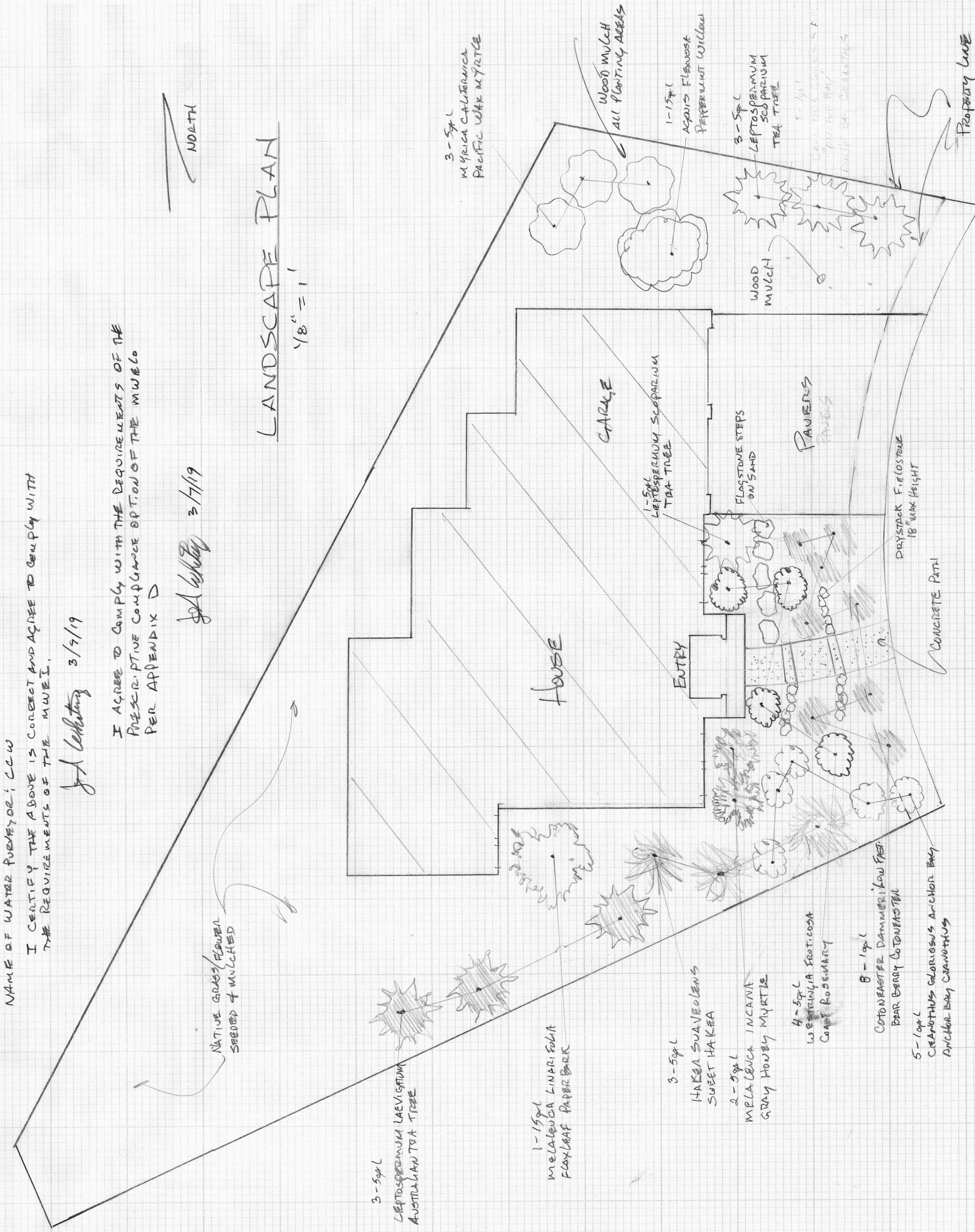
ZHENG
EL GRANADA BLVD.
EL GRANADA
1/8" = 1'

FLORA FARMS
340 PURISSIMA ST.
HALF MOON BAY, CA 94019
LIC # 549103
3/7/19

NORTH

LANDSCAPE PLAN

1/8" = 1'



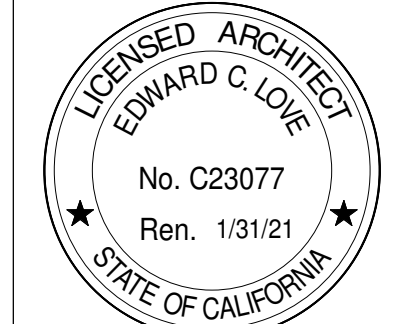
PLANTING NOTES

- INCORPORATE COMPOST AT A RATE OF AT LEAST 4 CUBIC FEET PER 1000 SQ. FT. TO A DEPTH OF 6" INTO LANDSCAPE AREA
 - A MINIMUM OF 3" LAYER OF MULCH SHOULD BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS, EXCEPT IN AREAS OF CREEPING, GROUND COVER OR TURF
- * PLANTING TO BE ILLUMINATED

EL GRANADA BLVD.

PLANT LIST	QTY	SIZE	WI	PLANT TYPE
MYRICA CALIFORNICA PACIFIC WILDMYRTLE	3	5gal	M	SHRUB
ACONIS FLOXUOSA PEPPERMINT WILLOW	1	15gal	L	TREE
LEPTOSPERMUM SCOPARIUM NEWZEALAND TEATREE	3	5gal	M	SHRUB
CELANOTHUS GIGLIOLUS AB. ANCHOR BAY CEANOTHUS	5	1gal	L	GROUND COVER
COTONNESTER DAMMER LOW FERT BEAR BERRY CEANOTHUS	8	1gal	L	GROUND COVER
WESTRINGIA FRUTICOSA CONST ROSEHEMLOCK	4	5gal	L	SHRUB
MELALEUCA INCANNA GRAY HONEY MYRTLE	2	5gal	L	SHRUB
HAKAEA SORVAEOLENS SWEET HAKEA	3	5gal	L	SHRUB
MELALEUCA LIMARIBIA PAPERBARK	1	15gal	L	TREE
LEPTOSPERMUM LAEVIGATUM AUSTRALIAN TEATREE	3	5gal	L	SHRUB
X. CALLIFORNIA CONST NATIVE WILD FLORILLA MIX	SOLD BY S.O.S SEED 20 IN/ACRE			

TOTAL PLANTS
2-15gal
18-5gal
13-1gal



DATE: 03/02/20
SCALE:
DRAWN: Author
JOB: ZHENG
SHEET: LP.01
OF SHEETS

LANDSCAPE PLAN BY:
JERRY WHITING
FLORA FARMS
340 PURISSIMA ST
HALF MOON BAY, CA

New Residence for
The Zheng Family
El Granada Blvd
El Granada, CA

Edward C. Love
Architect
720 MILL STREET
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edwardclovearch@gmail.com



REVISIONS



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT I

A Reply to the Appeal

24 August 2020

The original texts of the appeal are in small grey font, and our texts are in bold black font.

I. Premature for County to Consider Approval Because of Pending Litigation

There is currently litigation pending in San Mateo County Superior Court (*Armstrong v. Zheng et al.*, Case No. 20-CIV-01936) concerning a boundary dispute and easement on Mr. Zheng's property that was established by the prior owners of my property and was passed to me when I purchased my property in February 2019. The easement, which is not recognized in Mr. Zheng's proposal, includes at least 1,200 square feet of the lot. Mr. Zheng's proposed plans significantly exceed the buildable space of the lot when the easement is accounted for. Likewise, the proposed project improperly builds on top of and encroaches upon the easement. Therefore, until the litigation is fully adjudicated in court, it is premature for the County to approve—or even consider—Mr. Zheng's application given the substantial implications the easement has on the scope and feasibility of the proposed building. Accordingly, the Commission should pause consideration of Zheng's project until the litigation is resolved in court.

Mr. Armstrong has filed suit seeking a prescriptive easement over a 100 ft x 12 ft strip of land on my property. His apparent justification for this substantial easement is that there are some wildflowers in that area, along with a stack of roof tiles in a small area. The lawsuit was seemingly filed for the sole purpose of prosecuting this appeal, lacks merit, and will be defended rigorously with an expectation that it will be dismissed. No injunction has been issued by the Court that would prevent my construction. This action by Mr. Armstrong seems consistent with his tactics to use his status as a lawyer to his advantage and to prevent my home from being built, consistent with his statements in the past about this getting expensive for me.

In his amended complaint of August 10, 2020, Mr. Armstrong removes the injunctive clause and deletes the definition of his claimed easement (12 ft wide), therefore his claim becomes more vague.

II. The Proposed House's Roof Exceeds the Lot Setbacks

The roof of the proposed residence exceeds the setback by nearly half a foot on the southwestern property line adjacent to my house (i.e., the roof above "Bedroom 3" as shown on Sheets A0.02, A1.02, and A1.03 of Mr. Zheng's March 2020 plans). This not only exceeds my disputed easement, but also exceeds the standard lot setback requirement.

We have modified the design slightly so that the roof eave does not cross the setback line+ 2ft.

III. Mr. Zheng Has Not Retained a Qualified Geotechnical Engineer to Perform Requisite Analysis and Prepare Proper Reports, Particularly in View of Modifications to the Building Design

As detailed in Dr. Upp's expert analysis, Mr. Zheng's retained engineer, Charles Kissick of Sigma Prime Geosciences Inc., is a civil engineer, rather than a registered Geotechnical Engineer per the qualifications established by the California State Board of Professional Engineers, Land Surveyors, and Geologists. See Exhibit 1 (Upp Analysis) at pp. 3-4, 6. Accordingly, the July 30, 2019 report prepared by Kissick (Exhibit 4) that is substantially relied upon in the

project plans (e.g., Sheet C-1) is insufficient to comply with requisite standards. Furthermore, Mr. Zheng's design plans were significantly changed multiple times since Mr. Kissick's July 2019 report. However, the Department wrongly relied on an outdated report prepared by an unqualified engineer in order to approve the project up to this stage. The Department's May 11 Approval Letter indicates that comprehensive geotechnical analysis can *after* the project is moved past the current planning stage, but that is imprudent given that the geotechnical implications directly affect the feasibility of building a large house on a steep hillside.

Mr. Charles Kissick's reply of June 1, 2020:

The assertion that I am not qualified to perform a geotechnical investigation for the subject house, because I am not a licensed geotechnical engineer, is incorrect. A licensed civil engineer is allowed to prepare and sign a soils report for a single-family residence. The state does not require a licensed geotechnical engineer for such projects. I am also a licensed geologist and engineering geologist, with a master's degree in engineering geology from Imperial College, London, in 1987, in a program consistently ranked top 5 in the world. I have worked on numerous large tunnel and dam projects, including the Devil's Slide Tunnel project, as the principal engineering geologist during the initial phase of the project. To say I am not qualified to perform geotechnical engineering work for a small house is simply not true.

The recent modifications to the house design have had no impact on the design requirements of the foundation. However, this project is ongoing and will require our update of the report, particularly for the seismic design parameters, when the building permit phase of the project begins. Our foundation recommendations will not change due to the most recent design changes to the house.

Ms. Sally Strubinger of the CA Board of Professional Engineers, Land Surveyors, and Geologists states on June 9, 2020:

While the Board does issue a geotechnical engineer's license, all licensed civil engineers are authorized to provide geotechnical engineering services. The geotechnical license is an additional license that civils choose to obtain but does not provide them with any additional practice authority. The geotechnical license does allow the license holder to use the title, geotechnical engineer, but again all licensed civil engineers can offer and provide geotechnical engineering services.

I have checked our records and found that Charles Kissick is a licensed civil engineer who was issued license number C 62264 on June 28, 2001. Said license will expire on September 30, 2021 unless renewed. Mr. Kissick also has licenses as a geologist, an engineering geologist, and a hydrogeologist. Geology licenses do not allow the person to provide geotechnical engineering services but do allow them to practice geology in its various forms.

To answer your specific question, yes, Mr. Charles Kissick is legally qualified to provide a soils report for a single family home.

Given the substantial geotechnical implications this project has on adjacent properties due to the lot's unique location and shape, the Planning Commission should mandate that an updated comprehensive report be prepared by a qualified geotechnical engineer so that it can be analyzed by the public and independent engineers—rather than left to the sole discretion of Department personnel *after* the project is no longer subject to appellate review.

Notably, from a geotechnical standpoint, Mr. Zheng's proposal contravenes General Plan Policy No. 15.20(a)-(b): "Avoid the siting of structures in areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring

properties. b. Wherever possible, avoid construction in steeply sloping areas (generally above 30%).”

The house is to be built on a relatively flat part (< 8°, 7ft/55ft) of the lot.

IV. The Proposal Compromises the Integrity of the Hillside, Thereby Endangering Neighboring Properties and Causing Sedimentary Pollution in Nearby Waterways

Mr. Zheng’s proposed project lacks a sufficient drainage and erosion control system, as detailed in Dr. Upp’s expert analysis. See Exhibit 1 (Upp Analysis) at pp. 4-6. Mr. Zheng relied on Mr. Kissick’s March 18, 2019 drainage report (Exhibit 5) in his plans, particularly on Sheet C-1. However, the drainage plans are not only inadequate per Dr. Upp, but they also fail to comply with the Department’s mandate—sent to the applicant on May 21 and 24, 2019—that the detention basin be 23 feet long, whereas the proposed detention basin is now only 13.3 feet long in the proposed plans. See Exhibit 6 (Accela Report at May 21 and 24, 2019).

Mr. Charles Kissick’s reply:

New methods that are now allowed by County staff make it possible for us to redesign the drainage system to utilize a solid (not perforated) storage pipe that overflows to a sump pump, through a metered outlet. The sump pump will direct the runoff to the front yard, after which the runoff will travel along a bioswale toward the back of the property. The metered outlet and flow rate of the sump pump will result in relatively low flows. With this system, the impact on the steep slopes below the property will be minimal. The main concern is the debris flow hazard on the steep slope below the house site. We will include more detailed measures to minimize the impact on the slope. As mentioned above, I earned my master’s degree in engineering geology at Imperial College, where my master’s thesis was on the prediction of debris flow hazard. Therefore, my qualifications to deal with this issue are more than adequate. In fact, it is my opinion that the steep slope below the house site may very well fail as a debris flow at some time in the future, whether there are nearby houses or not. This is a natural erosional process that occurs in the area. Such failures are very unlikely to impact or threaten any houses in the area. The only real danger posed by debris flows would be to houses located at the bases of steep slopes, and there are none.

Given the size of Mr. Zheng’s proposed structure on an odd shaped lot that sits atop a steep hillside, drainage is of paramount concern for adjacent neighbors and for the environment. The following excerpt from Dr. Upp’s analysis details the serious concern:

As shown on the DETENTION SYSTEM detail, the detention system design apparently is based on a 10 year storm event of 1 hour duration and a rainfall intensity of 0.924 inches per hour. Simply explained, in an hour about 1 inch of rain would fall on the roof and driveway with about 2,300 combined square feet. That amounts to about 330,000 cubic inches of rainfall in an hour or almost 200 cubic feet. What happens to that extra 100 cubic feet of roof runoff (that will not fit in the detention pipe) during an intense storm along the coast of Northern California? ...

With this size roof and driveway area, this tank only has the capacity to detain a rainfall of about 0.5 inches before it overflows. However, the only way shown for water to exit the pipe is through the clean-out access grate on top. From this grate, concentrated runoff will flow directly downhill, with minimal dissipation, for about 25 feet before it rushes onto the adjacent parcel. For millennia rain falling on this site was dispersed over a slope about 75 feet wide. The surface was protected from incisive erosion by dense vegetation and the dispersion of runoff. Surface erosion was spread out and was minor but it was enough to help create a deep canyon. With this proposed drainage system the same amount of water from a heavy rainfall (about 1,500 gallons) will be concentrated into a 1 foot wide highly erosive torrent that will first erode a system of closely spaced rills that soon will coalesce and enlarge into a gully.

Because the ground slope becomes much steeper on the adjacent parcel [see Figure 3 below], the concentrated runoff will increase in speed and turbulence and cause more erosion. The gully will continue to enlarge and eventually extend the erosion onto multiple adjacent and nearby properties with significant loss of land.

.....

The drainage report prepared by Mr. Kissick observes that the property drains to a watershed that covers an area of about 350 acres that extends eastward into the hills and ends in Pilar Point Harbor. Exhibit 5 at p. 3. “The property slopes down to a deep valley with an unnamed creek. The creek is about 800 feet to the west, and 350 feet lower in elevation.” Id. Even Mr. Kissick’s geotechnical analysis recognizes “slope failure might occur about 50 feet below the property.” Exhibit 4 at 5.

Sigma Prime used San Mateo County’s approved method to size the detention basin, and it was, in fact, approved by the County civil engineer. The method bases the size of the detention basin on the *difference* in runoff from the pre-construction condition, to the post-construction condition. As such, a runoff coefficient of 0.6 is applied in the Rational Method equation. The new drainage plan incorporates a sump pump. It significantly increases the capability of rainfall management and directs water back to the front yard.

V. The Proposal Exacerbates Fire Danger in a Highly Vulnerable Zone and Does Not Provide Sufficient Setback for Vegetation Management

The property is located in a “Very High Fire Hazard Severity Zone.” See Planning & Building Department’s Approval Letter dated May 11, 2020 at ¶ 41 (hereinafter, “Approval Letter”). It would be imprudent for the County to approve the building of a structure so close to a deep valley (only 5 feet) in which vegetation management is outside Mr. Zheng’s control or that of adjacent neighbors. See Exhibit 1 (R. Rexford Upp’s Analysis Letter dated May 26, 2020) at p. 7 (hereinafter, “Upp Analysis”). Threatened with a fire, there is only one escape route for El Granada Boulevard residents—the street itself. Likewise, that street is the only access point for fire personnel to access the residences. This creates a very dangerous bottleneck.

Mr. Zheng’s proposed structure should be setback farther from the property lines in order to provide more defensible space (i.e., more than 5 feet from the hillside) in the rear, and more space for fire personnel to access the hillside (i.e., more than 10 feet on the sides of the house). Otherwise, there will be no fuel break access points to the steep slope. Under pertinent fire code, “[a] fuel break of defensible space is required around the perimeter of all structures to a distance of *not less than 30 feet* and may be required to a distance of 100 feet or to the property line.” See Coastside Fire Protection District Ordinance 2016-01 and 2016 California Fire Code 304.1.2. Five feet of from a steep hillside is not sufficient defensible space for a “Very High Fire Hazard Severity Zone.”

As it stands, because the lot is empty, fire personnel have ready access to the hillside in order to mitigate rapid uphill spread of a wildfire. However, given how close the proposed structure is designed to sit next to the southern and northern property lines—approximately 10 feet—it would be virtually impossible for fire personnel to have ground access to fight a wildfire. As a result, the design plan endangers both Mr. Zheng’s own proposed house along with those of the entire neighborhood if a fire were to enter the canyon and move up the hillside.

The very high fire risk in El Granada has been widely recognized by fire authorities and state agencies. In fact, based on a State of Emergency declared by Governor Newsom last year, CalFire supervised the major fuel break clearing on the other side of El Granada Boulevard and starting at Quarry Park, by removing large swaths of eucalyptus trees and other vegetation. See, e.g., <https://www.facebook.com/CALFIRECZUSanMateoSantaCruz/videos/581536569296899/>; https://www.hmbreview.com/news/new-state-report-highlights-coastside-wildfirerisk/article_5c202252-45c5-11e9-b887-abeb3678b826.html. Such clearing has not been conducted on the other side of El Granada Boulevard (i.e., the side upon which Mr. Zheng’s property sits). Nevertheless, the very high fire risk in the area has been extensively highlighted in the

media and evidenced by PG&E's lengthy mandatory power outages. *See, e.g.*, Exhibit 3 (various articles and publications regarding El Granada fire danger). Notably, the high fire risk is evidenced by the difficulty in obtaining residential fire insurance on El Granada Boulevard.

The design has been approved by the Fire Department. It is situated outside the Quarry Park Project (p.39 of the appeal). We welcome future fuel breaks in the public lands beyond.



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT J



Subject property



631 El Granada



647 El Granada Blvd.



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT K

RECEIVED

APR 19 2019

San Mateo County
Planning and Building Department

March 27, 2017

Wei Zheng
614 Crompton Rd
Redwood City, CA 94061**Re: Biological Constraints and Environmentally Sensitive Habitat Areas Assessment for APN 047-151-120 El Granada Blvd, El Granada, San Mateo County, California**

Dear Mr. Zheng,

The purpose of this letter is to inform you of the results of the biological constraints and Environmentally Sensitive Habitat Area (ESHA) assessments at an undeveloped parcel (APN 047-151-120) located on El Granada Blvd in El Granada, San Mateo County, California (Figure 1). Construction of a single-family residence is proposed on the parcel (Project). The assessment encompassed the parcel and the surrounding 50 feet (Study Area) to identify any potential sensitive habitats in the vicinity. The purpose of these assessments is to comply with the San Mateo County Mid-Coast Local Coastal Program (LCP).

Figures are provided in Attachment A, and photographs depicting the current Study Area conditions are provided in Attachment B.

Survey Methods

A site visit to the Study Area was made on March 10, 2017 by WRA biologist Erich Schickenberg (wetland and plant ecologist) and reviewed by Patricia Valcarcel (wildlife biologist). Prior to the site visit, a review was conducted of background information including:

- San Mateo County Midcoast Local Coastal Program (LCP) biological resources policies
- San Mateo County Heritage Tree Ordinance
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2017)
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2017)
- U.S. Fish and Wildlife Service (USFWS) 7.5' Quadrangle Species Lists for the Montara Mountain and Half Moon Bay quadrangles (USFWS 2017)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "California Bird Species of Special Concern" (Shuford and Gardali 2008)
- California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)

The Study Area was traversed on foot by the WRA biologist and examined for: (a) sensitive natural communities as defined by the CDFW and LCP and, (b) for the presence, and potential to support, special-status plant and wildlife species. Vegetation within the Study Area and vicinity was also evaluated for riparian habitat criteria and/or unvegetated streams as defined by the LCP. If a

special-status species was observed during the site visit, its presence is recorded and discussed further below. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described further below.

Survey Results

Study Area Description

The Study Area is located on El Granada Blvd on the northern edge of El Granada. It consists of undeveloped coyote brush scrub and disturbed coyote brush scrub. The Study Area is downward sloping from east to west. The majority of the Study Area is composed of disturbed and landscaped areas. The central portion of the Study Area contains coyote brush scrub with the outer portions of this vegetation community disturbed from adjacent landscaping activities. The Study Area is bounded by residential development to the north and south, a neighborhood road to the east, and undeveloped land to the west.

Vegetation Communities

Three vegetation communities are present in the 0.64-acre Study Area: disturbed/landscaped, coyote brush scrub, and disturbed coyote brush scrub (Figure 2). These vegetation communities will be permanently and temporarily disturbed by the construction of a residence. No sensitive communities are present.

Non-Sensitive Vegetation Communities

Approximately 0.34 acre of disturbed/landscaped vegetation, consisting of non-native shrubs and forbs, is the dominant community within the Study Area. The disturbed/landscaped portion of the Study Area contains existing houses and hardscape and is dominated by common ornamental plant species including Cape province pygmyweed (*Crassula multicava*), jade plant (*Crassula ovata*), pride of Madeira (*Echium candicans*), and milkflower cotoneaster (*Cotoneaster lacteus*).

Coyote brush scrub (Holland 1986) encompasses approximately 0.16 acre. The coyote brush scrub uplands are dominated by native shrubs including coyote brush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), bush monkeyflower (*Mimulus aurantiacus*), California coffeeberry (*Frangula californica*), and poison oak (*Toxicodendron diversilobum*).

The Study Area also contains 0.14 acre of disturbed coyote brush scrub dominated by common non-native invasive and ornamental species including Cape province pygmyweed (*Crassula multicava*), jade plant (*Crassula ovata*), pride of Madeira (*Echium candicans*), and milkflower cotoneaster (*Cotoneaster lacteus*). This vegetation community is present along the periphery of developed areas present within the Study Area.

Special-Status Species

Special-Status Plants

Based upon a review of the resources and databases discussed previously, all special-status plant species documented in the vicinity of the Study Area were assessed. Figure 3 shows occurrences documented within 2 miles of the Study Area in the CNDDDB (CDFW 2017). No

special-status plant species were observed in the Study Area. Of the five special-status plant species evaluated, San Francisco campion (*Silene verecunda* ssp. *verecunda*) was determined to not be present, and the four other special-status plants that occur in the vicinity were determined to have no potential or a low potential to occur based on the high disturbance levels and/or a lack of suitable habitat components in and around the Study Area. These species require certain habitat types not present in the Study Area, such as serpentine, coastal prairie, coastal bluff, or saltmarsh habitat, and were determined to have no potential to occur. Although the site visit did not constitute a protocol-level rare plant survey, no special-status plants or their habitats were observed.

Special-Status Wildlife

Based upon a review of the databases and literature, five special-status wildlife species have been documented to occur in the vicinity of the Study Area (CDFW 2017). Figure 4 shows occurrences documented within 2 miles of the Study Area in the CNDDDB (CDFW 2017). All five of the special-status wildlife species, documented to occur in the vicinity, have no potential or are unlikely to occur within the Study Area because of a lack of suitable habitat including no aquatic features for breeding, no serpentine habitat, no tree lupine (*Lupinus arboreus*) or lupine species (*Lupinus* sp.), and barriers to dispersal. Although suitable habitat is present for San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*; SFDW), no SFDW houses were observed within or adjacent to the Study Area. Disturbance within the Study Area from landscaping activities reduces potential for SFDW to occur within the Study Area, and this species is not currently present and unlikely to occur. All trees present within the Study Area are small landscape trees, and cavities are not present to support cavity nesting bird or bat species.

California red-legged frog (*Rana draytonii*; CRLF) and San Francisco gartersnake (*Thamnophis sirtalis tetrataenia*; SFGS) are unlikely to be present because of a lack of suitable aquatic habitat in the vicinity of the Study Area. The Study Area is over 600 feet (0.1 mile) from Deer Creek, and 1,500 feet (0.3 mile) from potential pond habitat. Based upon distance from pond and riparian habitats, it is unlikely CRLF or SFGS will occur within or disperse through the Study Area.

Impacts and Recommendations

The Study Area does not contain any sensitive vegetation communities or ESHAs and no rare, endangered, or unique species are anticipated to be present in the Study Area. However, most native bird nests are protected under the Migratory Bird Treaty Act. Recommendations to protect nesting birds are described below.

Non-Special-Status Nesting Birds

Non-special-status bird species have potential to nest within the Study Area. Therefore, the following measures are recommended to avoid impacts to active nests of both special-status and non-special-status bird species:

- Trees or shrubs proposed for removal or trimming should be removed or trimmed during the bird non-nesting season (August 16 – February 14).
- If tree or shrub removal is initiated during the nesting season (February 15 – August 15), a pre-construction nesting bird survey by a qualified biologist is recommended to avoid impacts to both special-status and non-special-status bird species.
 - If active nests are observed, the qualified biologist will determine suitable buffers based upon nest location and bird species. Buffers will be dependent upon

species, nest location and project activities, but may range between 25-75 feet for passerine birds and up to 250 feet for raptors.

Summary

Based upon a review of databases and a site visit to the Study Area on March 10, 2017, no sensitive habitat is present within the Study Area. Special-status plant species are unlikely or have no potential to be present within the Study Area. No SFDW houses were observed at the time of the site visit, and disturbance in the Study Area makes it unlikely this species will occur. No special-status wildlife species that are documented in the vicinity of the Study Area are likely to occur within the Study Area. No Heritage or Significant trees are present. Avoidance of the bird nesting season or a pre-construction survey for nesting birds is recommended for tree or shrub removal activities. No further measures are recommended.

Please feel free to contact me with any questions regarding this assessment.

Sincerely,



Patricia Valcarcel
Associate Wildlife Biologist

Enclosures:

Attachment A – Figures

Attachment B – Representative Photographs

References

- California Department of Fish and Wildlife (CDFW). 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.
- California Department of Fish and Wildlife (CDFW). 2017. Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. Sacramento.
- County of San Mateo. 2013. Local Coastal Program.
- Holland, RF. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game, Sacramento, CA.
- Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. Co-published by the California Department of Fish and Wildlife and University of California Press. Oakland, California.
- U.S. Geological Survey (USGS). 1991. Montara Mountain. 7.5-minute topographic map. Available at: <http://www.usgsquads.com/index.php>. Accessed March 2017.

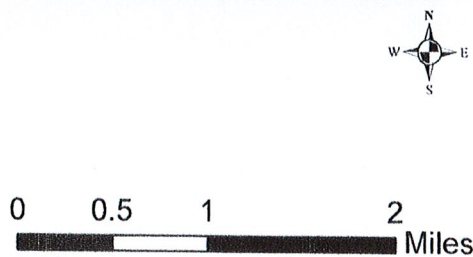
Attachment A

Figures



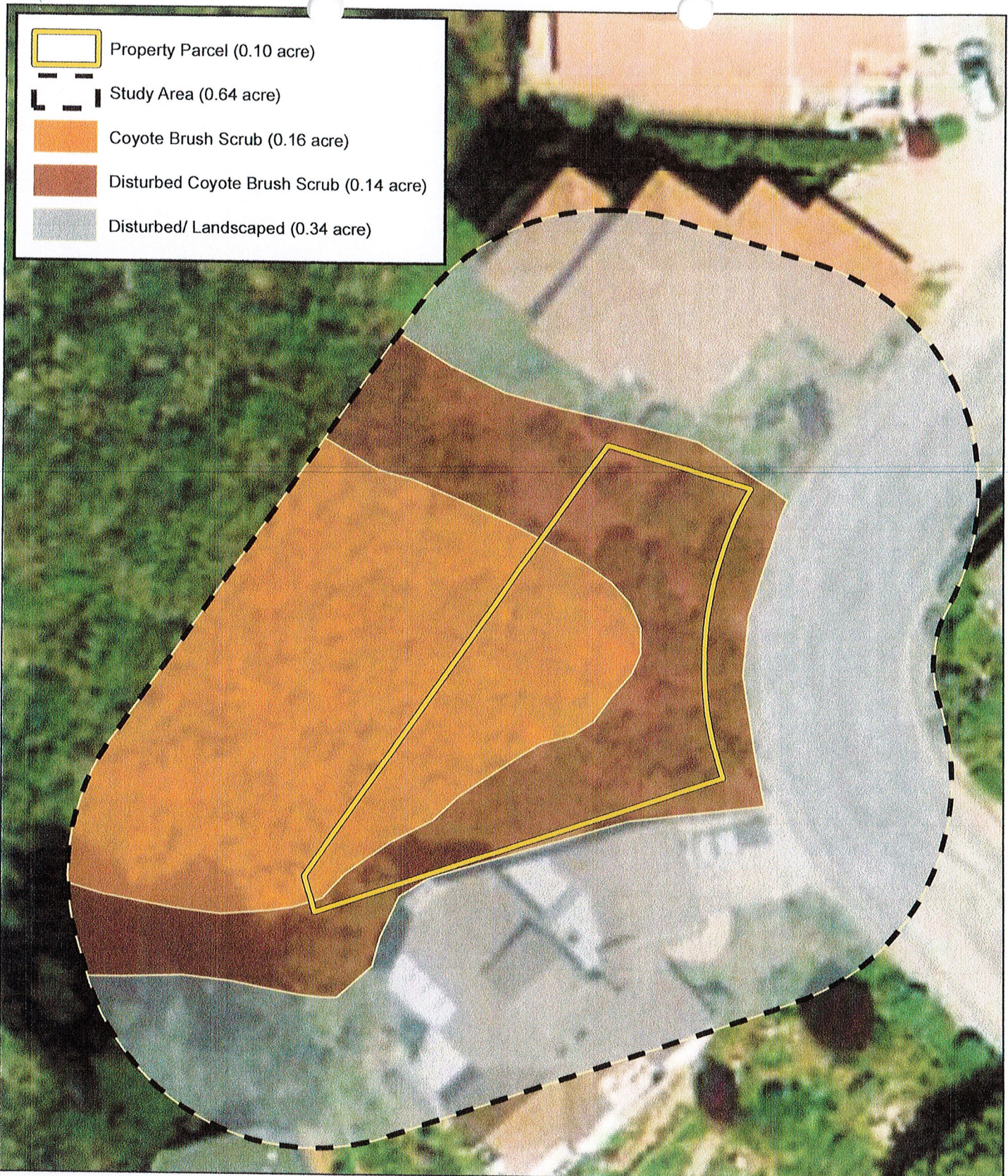
Figure 1. Location Map

APN 047-151-120
 El Granada Blvd ESHA Report
 San Mateo County, California



ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 3/21/2017
 Map Prepared By: michelle
 Base Source: National Geographic
 Data Source(s): WRA



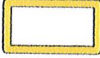




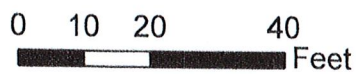
-  Property Parcel (0.10 acre)
-  Study Area (0.64 acre)
-  Coyote Brush Scrub (0.16 acre)
-  Disturbed Coyote Brush Scrub (0.14 acre)
-  Disturbed/ Landscaped (0.34 acre)

Figure 2. Biological Communities

APN 047-151-120
 El Granada Blvd ESHA Report
 San Mateo County, California



Map Prepared Date: 3/21/2017
 Map Prepared By: mrochelle
 Base Source: USGS EROS 2011 Imagery
 Data Source(s): WRA

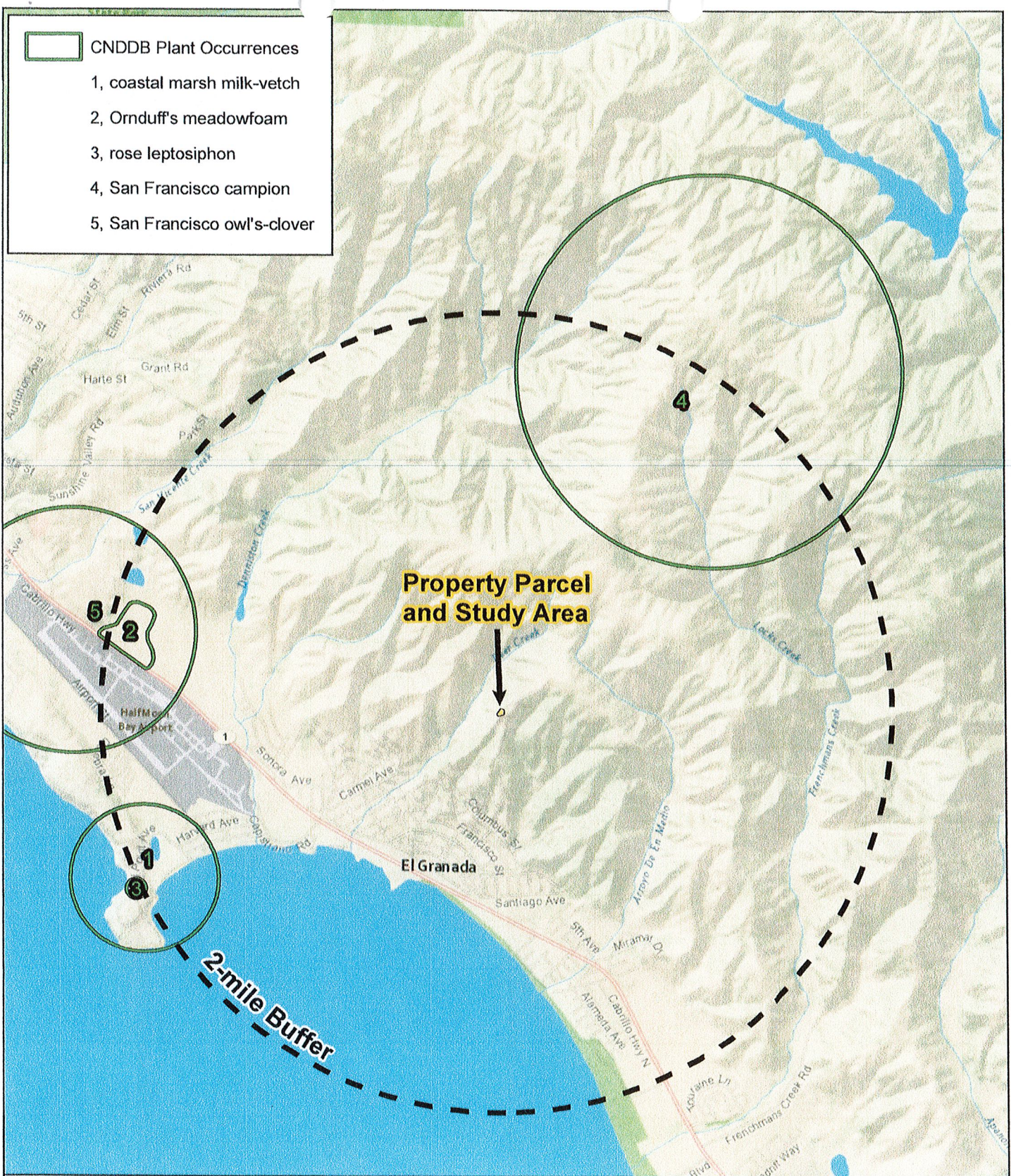
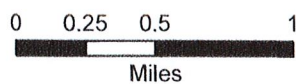


Figure 3. Special-status Plants Documented within 2 Miles of the Study Area

APN 047-151-120
 El Granada Blvd ESHA Report
 San Mateo County, California



ENVIRONMENTAL CONSULTANTS



Map Prepared Date: 3/21/2017
 Map Prepared By: mrochelle
 Base Source: National Geographic
 Data Source(s): CNDDDB March 2017

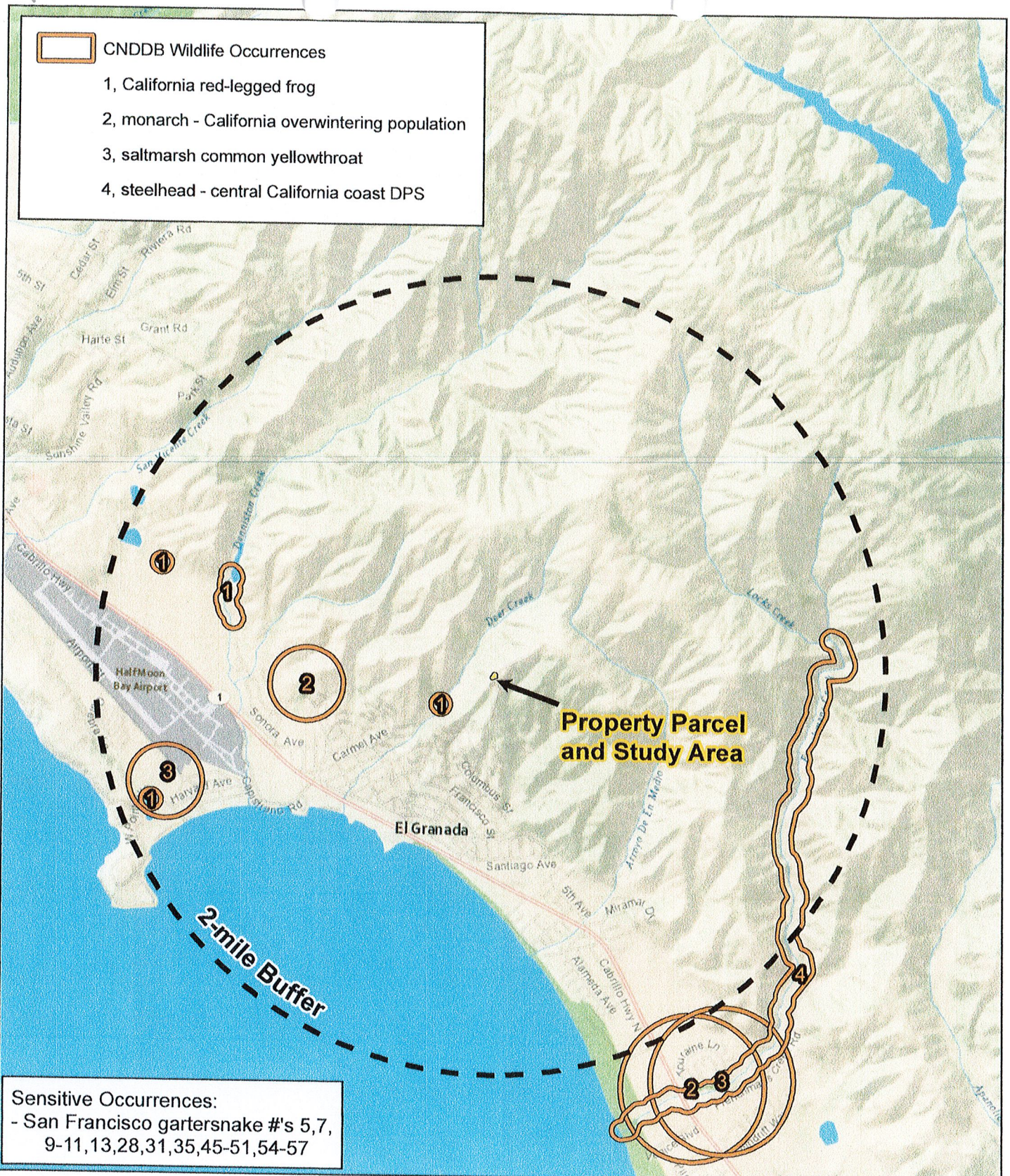
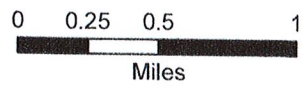


Figure 4. Special-status Wildlife Documented within 2 Miles of the Study Area

APN 047-151-120
 El Granada Blvd ESHA Report
 San Mateo County, California



ENVIRONMENTAL CONSULTANTS



Map Prepared Date: 3/24/2017
 Map Prepared By: mrochelle
 Base Source: National Geographic
 Data Source(s): CNDDDB March 2017

Attachment B
Representative Photographs



Photograph 1. A street view of the Study Area showing the disturbed/landscaped condition of the site.



Photograph 2. Disturbed coyote brush scrub within the Study Area.



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT L



Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

**ZHENG PROPERTY
EL GRANADA BOULEVARD
EL GRANADA, CALIFORNIA
APN 047-151-120**

**PREPARED FOR:
WEI ZHENG
10592 BLUE BELL WAY
COCKEYSVILLE, MD 21030**

**PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CALIFORNIA 94019**

JULY 30, 2019



Sigma Prime Geosciences, Inc.
Effective Solutions

July 30, 2019

Wei Zheng
10592 Bluebell Way
Cockeysville, MD 21030

Subject: Geotechnical Report for proposed house: El Granada Blvd.,
El Granada. APN 047-151-120
Sigma Prime Job No. 19-112

Dear Mr. Zheng:

As per your request, we have performed a geotechnical study for the proposed house at El Granada Boulevard in El Granada, California. The accompanying report summarizes the results of our field study and engineering analyses, and presents geotechnical recommendations for the planned structure.

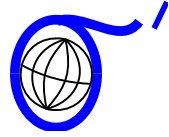
Thank you for the opportunity to work with you on this project. If you have any questions concerning our study, please call.

Yours,

Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.





**GEOTECHNICAL STUDY
EL GRANADA BOULEVARD
EL GRANADA, CALIFORNIA
APN 047-151-120**

**PREPARED FOR:
WEI ZHENG
10592 BLUEBELL WAY
COCKEYSVILLE, MD 21030**

**PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CALIFORNIA 94019**

JULY 30, 2019



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TABLES

TABLE 1 - HISTORICAL EARTHQUAKES

TABLE 2 - SEISMIC PARAMETERS

FIGURES

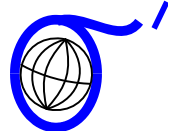
FIGURE 1 - SITE LOCATION MAP

FIGURE 2 - SITE MAP

APPENDICES

APPENDIX A - FIELD INVESTIGATION

APPENDIX B - LABORATORY TESTS



1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed house at El Granada Boulevard in El Granada, California at the location shown in Figure 1. The purpose of this investigation was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations for the proposed construction.

1.1 PROJECT DESCRIPTION

A new single family home is proposed on a vacant lot. Structural loads are expected to be light, as is typical for this type of construction.

1.2 SCOPE OF WORK

The scope of work for this study was presented in our proposal dated December 18, 2018. In order to complete this project we have performed the following tasks:

- Reviewed published information on the geologic and seismic conditions in the site vicinity;
- Geologic site reconnaissance;
- Subsurface study, including 2 soil borings at the site;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed structure.



2. FINDINGS

2.1 GENERAL

The site reconnaissance and subsurface study were performed on July 11, 2019. The subsurface study consisted of drilling 2 soil borings with continuous sampling. The soil borings were both advanced to a depth of 6 feet. The approximate locations of the borings are shown in Figure 2, Site Plan. The soil boring logs are attached in Appendix A.

2.2 SITE CONDITIONS

At the time of our study, the site was undeveloped. The house site slopes gently to the west, with a steep down-slope west of the house site. The site is vegetated with grasses and dense shrubs.

2.3 REGIONAL AND LOCAL GEOLOGY

Based on Brabb, et al (1998), the site vicinity is primarily underlain by the Montara granodiorite. The unit is described as medium to coarse granitic rock, deeply weathered and highly fractured.

2.4 SITE SUBSURFACE CONDITIONS

The subsurface conditions at the site, based on the soil borings, consist of about 2 feet of stiff sandy clay over granodiorite bedrock. The clay has low to moderate plasticity, with plasticity indices of 9 and 16.

2.5 GROUNDWATER

Groundwater was not encountered in the borings and is not expected to impact the construction.

2.6 FAULTS AND SEISMICITY

The site is in an area of high seismicity, with active faults associated with the San Andreas fault system. The closest active fault to the site is the San Gregorio fault, located about 3 km to the southwest. Other faults most likely to produce significant seismic ground motions include the San Andreas, Hayward, Rodgers Creek, and Calaveras faults. Selected historical earthquakes in the area with an estimated magnitude greater than 6-1/4, are presented in Table 1 below.



**TABLE 1
HISTORICAL EARTHQUAKES**

<u>Date</u>	<u>Magnitude</u>	<u>Fault</u>	<u>Locale</u>
June 10, 1836	6.5 ¹	San Andreas	San Juan Bautista
June 1838	7.0 ²	San Andreas	Peninsula
October 8, 1865	6.3 ²	San Andreas	Santa Cruz Mountains
October 21, 1868	7.0 ²	Hayward	Berkeley Hills, San Leandro
April 18, 1906	7.9 ³	San Andreas	Golden Gate
July 1, 1911	6.6 ⁴	Calaveras	Diablo Range, East of San Jose
October 17, 1989	7.1 ⁵	San Andreas	Loma Prieta, Santa Cruz Mountains
(1)	Borchardt & Topozada (1996)		
(2)	Topozada et al (1981)		
(3)	Petersen (1996)		
(4)	Topozada (1984)		
(5)	USGS (1989)		

2.7 2016 CBC EARTHQUAKE DESIGN PARAMETERS

Based on the 2016 California Building Code (CBC) and our site evaluation, we recommend using Site Class Definition C (soft rock) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

**Table 2
CBC SEISMIC DESIGN PARAMETERS**

S_s	S₁	S_{MS}	S_{M1}	S_{Ds}	S_{D1}
2.001	0.759	2.401	1.063	1.601	0.709

Because the S₁ value is greater than 0.75, Seismic Design Category E is recommended, per CBC Section 1613.5.6. The values in the table above were obtained from a software program by the Structural Engineers Association of California which provides the values based on the latitude and longitude of the site and the Site Class Definition. The latitude and longitude were measured at 37.5134 and -122.4645, respectively, and were accurately obtained from Google Earth™.



3. CONCLUSIONS AND RECOMMENDATIONS

3.1 GENERAL

It is our opinion that, from a geotechnical standpoint, the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. Detailed recommendations are presented in the following sections of this report.

Because subsurface conditions may vary from those encountered at the location of our borings, and to observe that our recommendations are properly implemented, we recommend that we be retained to 1) Review the project plans for conformance with our report recommendations and 2) Observe and test the earthwork and foundation installation phases of construction.

3.2 GEOLOGIC HAZARDS

We reviewed the potential for geologic hazards to impact the site, considering the geologic setting, and the soils encountered during our investigation. The results of our review are presented below:

- Fault Rupture - The site is not located in an Alquist-Priolo special studies area or zone where fault rupture is considered likely (California Division of Mines and Geology, 1974). Therefore, active faults are not believed to exist beneath the site, and the potential for fault rupture to occur at the site is low, in our opinion.
- Ground Shaking - The site is located in an active seismic area. Moderate to large earthquakes are probable along several active faults in the greater Bay Area over a 30 to 50 year design life. Strong ground shaking should therefore be expected several times during the design life of the structure, as is typical for sites throughout the Bay Area. The improvements should be designed and constructed in accordance with current earthquake resistance standards.
- Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. In our opinion, due to the shallow bedrock, the likelihood of significant damage to the structure from differential compaction is nil.



- Liquefaction - Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. Loose silty sands below a water table do not exist at the site. Therefore, in our opinion, the likelihood of liquefaction occurring at the site is nil.
- Slope Stability – At the rear of the property, the land begins to slope down at a gradient of 50 to 60 percent. The slope continues to down to a valley about 300 feet below the house site. A review of aerial photographs of the hillsides in the area show stable slopes, except for scattered shallow soil failures that mobilized to debris flows. These types of failures are not likely to impact the proposed house site. They typically occur in narrow, steep side canyons some distance below the tops of the hillsides. The closest to the house site that a shallow slope failure might occur is about 50 feet below the property. This will not threaten the house site. Larger rotational failures are not likely due to the shallow, competent bedrock.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including topsoil, roots, vegetation, etc., should be cleared from the building area. The actual stripping depth required will depend on site usage prior to construction, and should be established by the Contractor during construction.

3.3.2 Compaction

Scarified surface soils should be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1157-78. All trench backfill should also be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density.

3.3.3 Surface Drainage

Impervious ground should slope away from the addition at 5 percent within 10 feet of the house. Pervious ground should slope away from the addition at 2 percent within 10 feet of the house. Ponding of water should not be allowed adjacent to the house.



3.4 FOUNDATIONS

We recommend that the foundation be designed as conventional continuous spread footings. Footings should have a minimum width of 12 inches, and extend at least 12 inches into the bedrock. Maximum footing depths are anticipated to be 2.5 feet.

Footings should be designed for allowable bearing pressures of 3,500 pounds per square foot for dead plus live loads, with a one-third increase allowed for total loads including wind or seismic forces.

All footings located adjacent to utility lines or other footings should bear below a 1:1 plane extended upward from the bottom edge of the utility trench or footing. All continuous footings should be reinforced with top and bottom steel to provide structural continuity and to permit spanning of local irregularities. Our representative should observe the footing excavations prior to placing reinforcing steel to see that they are founded in suitable materials and have been properly cleaned.

3.4.1 Lateral Loads

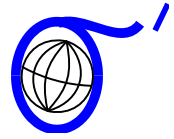
A passive pressure equivalent to that provided by a fluid weighing 300 pcf and a friction factor of 0.3 may be used to resist lateral forces and sliding against spread footing foundations. These values include a safety factor of 1.5 and may be used in combination without reduction. Passive pressures should be disregarded for the uppermost 12 inches of foundation depth, measured below the lowest adjacent finished grade, unless confined by concrete slabs or pavements. However, the pressure distribution may be computed from the ground surface.

3.4.2 Slabs-on-Grade

We recommend that slabs-on-grade be underlain by at least 4-inches of non-expansive granular fill. Where floor wetness would be detrimental, a vapor barrier, such as Stego wrap or equivalent may be used.

3.5 CONSTRUCTION OBSERVATION AND TESTING

The earthwork and foundation phases of construction should be observed and tested by us to 1) Establish that subsurface conditions are compatible with those used in the analysis and design; 2) Observe compliance with the design concepts, specifications and recommendations; and 3) Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The nature and extent of



variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate our recommendations.



4. LIMITATIONS

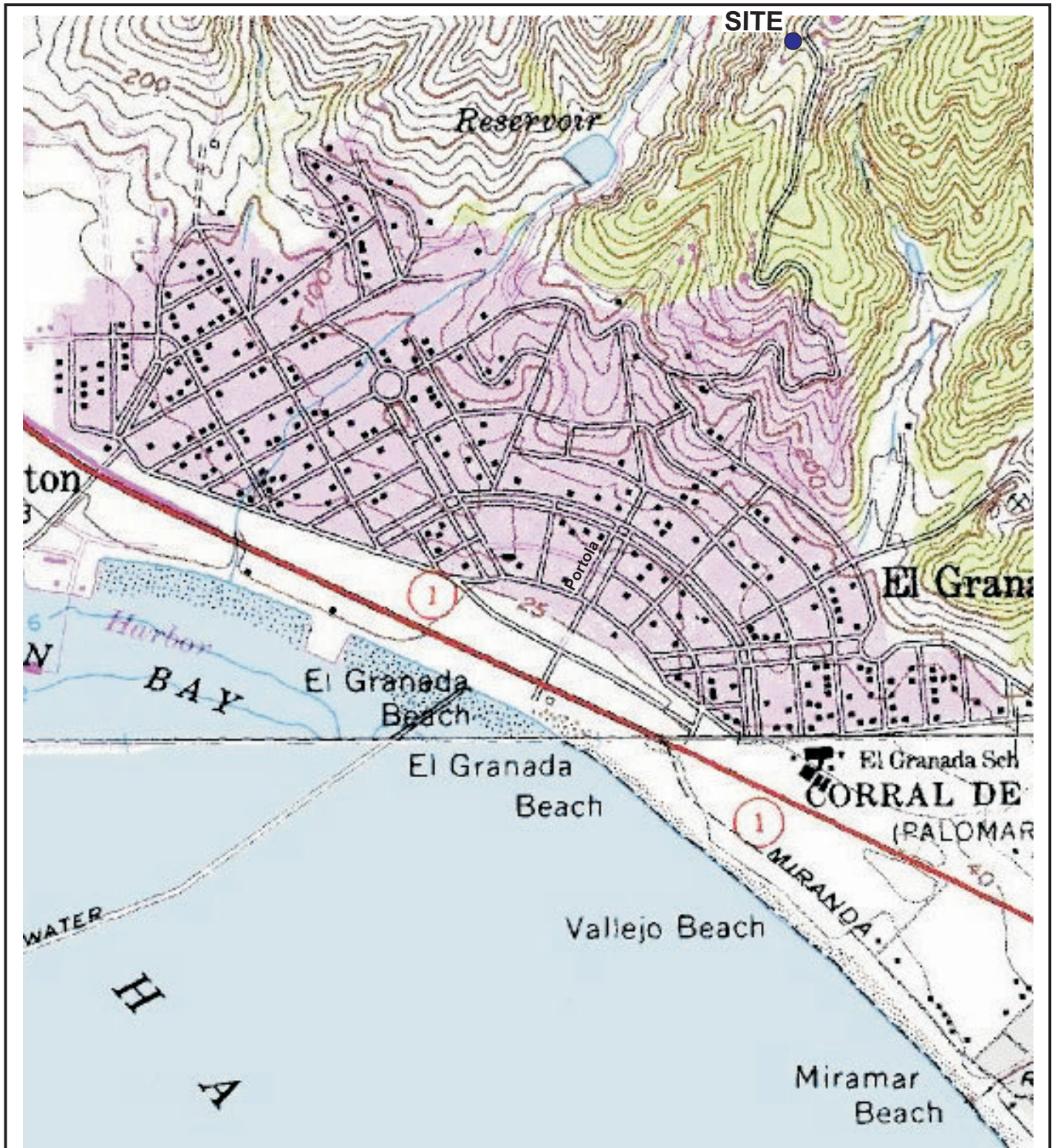
This report has been prepared for the exclusive use of the property owner for specific application in developing geotechnical design criteria, for the currently planned addition at El Granada Boulevard in El Granada, California (APN 047-151-120). We make no warranty, expressed or implied, except that our services were performed in accordance with geotechnical engineering principles generally accepted at this time and location. The report was prepared to provide engineering opinions and recommendations only. In the event that there are any changes in the nature, design or location of the project, or if any future improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless 1) The project changes are reviewed by us, and 2) The conclusions and recommendations presented in this report are modified or verified in writing.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our investigation; the currently planned improvements; review of previous reports relevant to the site conditions; and laboratory results. In addition, it should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during an investigation of this type. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.



5. REFERENCES

- Borchardt, G. and Topozada, T.R., 1996, Relocation of the “1836 Hayward Fault Earthquake” to the San Andreas Fault, Abstracts, American Geophysical Union Fall Meeting, December, San Francisco.
- Brabb, Earl E., Graymer, R.W., and Jones, D.L., 1998, Geology of the Onshore Part of San Mateo County, California, Derived from the Digital Database Open-File 98-137.
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- Petersen, M.D., Bryant, W.A., Cramer, C.H., Cao, T., Reichle, M.S., Frankel, A.D., Lienkaemper, J.J., McCrory, P.A., and Schwartz, D.P., 1996, Probabilistic Seismic Hazard Assessment for the State of California, USGS Open File Report 96-706, CDMG Open File Report 96-08, 33p.
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- Topozada, T.R., 1984, History of Earthquake Damage in Santa Clara County and Comparison of 1911 and 1984 Earthquakes.
- United States Geological Survey, 1989, Lessons Learned from the Loma Prieta, California Earthquake of October 17, 1989, Circular 1045.
- United States Geologic Survey, 11/20/2007, Earthquake Ground Motion Parameters, Version 5.0.8.
- Working Group on California Earthquake Probabilities, 1999, Earthquake Probabilities in the San Francisco Bay Region: 2000 to 2030 – A Summary of Findings, U.S. Geological Survey Open File Report 99-517, version 1.

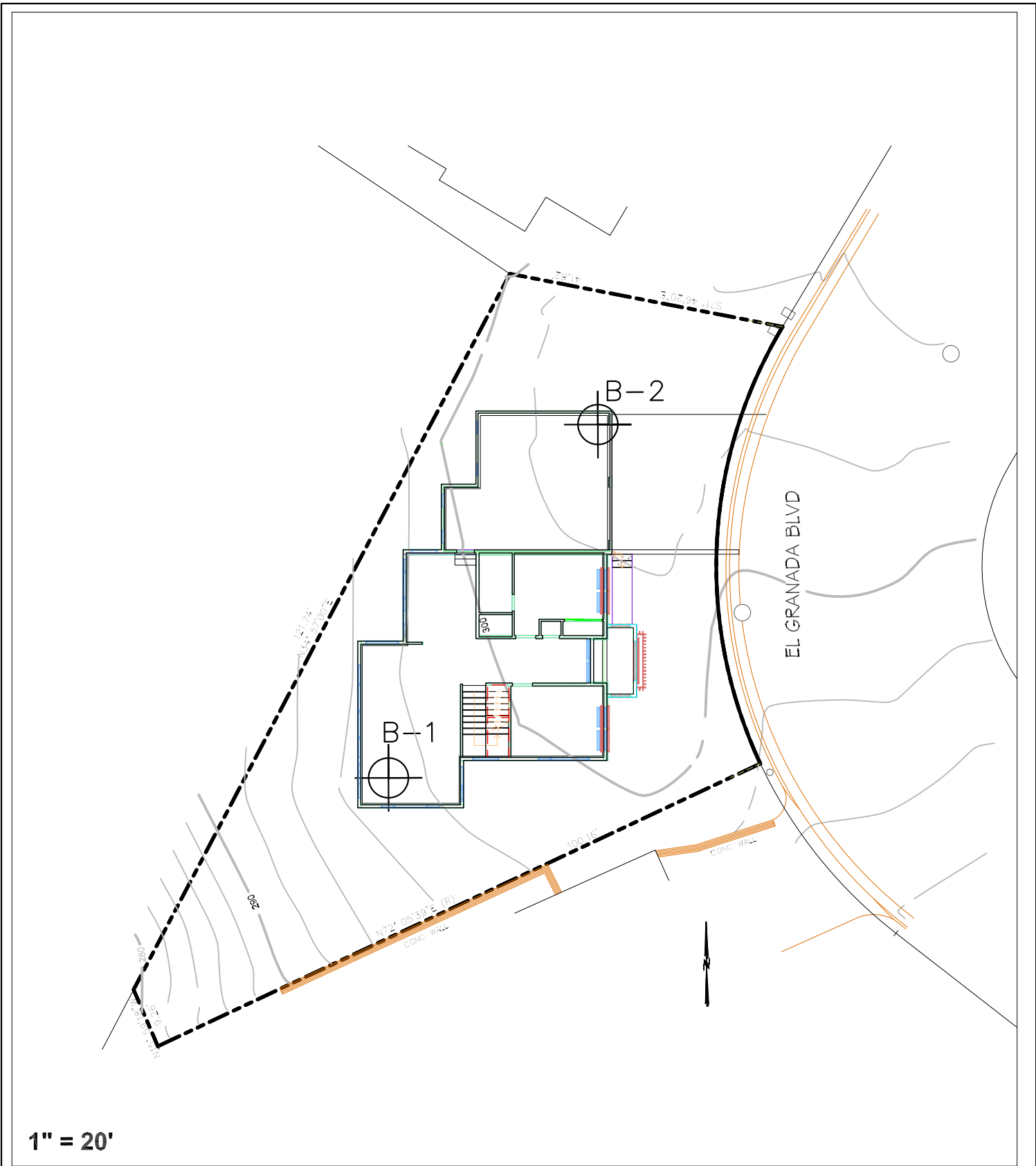


Sigma Prime Geosciences, Inc.

Figure	1
Date:	7/30/19
Job No.:	19-112


Location Map

Zheng, El Granada Blvd., El Granada



1" = 20'

Explanation

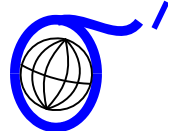
	Soil Boring Drilled 7-11-19
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Sigma Prime Geosciences, Inc.

Figure	2
Date:	7/30/19
Job No.:	19-112

Site Map
Zheng, El Granada Blvd., El Granada






APPENDIX A




FIELD INVESTIGATION

The soils encountered during drilling were logged by our representative, and samples were obtained at depths appropriate to the investigation. The samples were taken to our laboratory where they were carefully observed and classified in accordance with the Unified Soil Classification System. The logs of our borings, as well as a summary of the soil classification system, are attached.

Several tests were performed in the field during drilling. The standard penetration resistance was determined by dropping a 140-pound hammer through a 30-inch free fall, and recording the blows required to drive the 2-inch (outside diameter) sampler 24 inches. The standard penetration resistance is the number of blows required to drive a standard split spoon sampler the last 12 inches of an 18-inch sample and is recorded on the boring logs at the appropriate depth. Use of the standard split spoon sampler defines a Standard Penetration Test (SPT), and yields an SPT-equivalent blow count. (Where we drove the sampler 24 inches in some cases, this is a modified SPT test.) A modified California (Mod-Cal) sampler was also used, which results in blow counts that are higher than an SPT-equivalent blow count, due to the Mod-Cal sampler's larger diameter. For analyses, it is normal practice to reduce the Mod-Cal blow counts to correspond to an SPT-equivalent blow count. The blow counts from the Mod-Cal sampler are uncorrected on the logs. The results of these field tests are presented on the boring logs.

The boring log and related information depict our interpretation of subsurface conditions only at the specific location and time indicated. Subsurface conditions and ground water levels at other locations may differ from conditions at the locations where sampling was conducted. The passage of time may also result in changes in the subsurface conditions.

Project Name Zheng					Project Number 19-112		 Sigma Prime Geosciences, Inc.		
Location Back of Lot									
Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum			
Continuous	4"	6.0'	2.2'	3.8'	297'	Assumed*	Boring No.	B-1	
Drilling Company Access Soil Drilling				Logged By CMK		Page		1 of 1	
Type of Drill Rig		Type of Sampler(s) Mod Cal, 2 1/2, SPT		Hammer Weight and Fall 140 lb, 30"		Date(s)		7-11-19	
Depth (feet)	Description			Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0' - 2.2': <u>Sandy Clay</u> : dark brown; stiff; moist.				CL	6 10 13 14	1	MC	* Assumed datum means datum selected by surveyor; not a true elevation.
	2.2' - 6': <u>Granodiorite</u> : salt and pepper color; slightly weathered; friable.					18 26 29 36	2	2 1/2"	<u>Lab, Sample #1:</u> Moisture%=12.6% Dry Density=108.6 pcf LL=34, PL=25, PI=9
5						21 17 36 45	3	SPT	
	Bottom of Hole 6' below ground surface. No groundwater encountered.								
10									
15									
20									

Project Name Zheng					Project Number 19-112		 Sigma Prime Geosciences, Inc.		
Location Front of Lot									
Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum			
Continuous	4"	6.0'	2'	4'	303'	Assumed*	Boring No.	B-2	
Drilling Company Access Soil Drilling				Logged By CMK		Page		1 of 1	
Type of Drill Rig		Type of Sampler(s) Mod Cal, 2 1/2, SPT		Hammer Weight and Fall 140 lb, 30"		Date(s)		7-11-19	
Depth (feet)	Description			Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0' - 2': <u>Sandy Clay</u> : dark brown; stiff; moist.				CL	4	1	MC	* Assumed datum means datum selected by surveyor; not a true elevation. <u>Lab, Sample #1:</u> Moisture%=12.9% Dry Density=103.2 pcf LL=44, PL=28, PI=16
	2' - 6': <u>Granodiorite</u> : salt and pepper color; slightly weathered; friable.								
				17					
				24					
5						20	3	SPT	
					24				
					28				
						28			
						36			
	Bottom of Hole 6' below ground surface. No groundwater encountered.								
10									
15									
20									

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND		
COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE	GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	Cu > 4 AND 1 < Cc < 3	GW	WELL-GRADED GRAVEL		
		GRAVELS WITH FINES > 12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL		
		CLEAN SANDS < 5% FINES	Cu > 6 AND 1 < Cc < 3	SW	WELL-GRADED SAND		
		SANDS WITH FINES > 12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND		
	FINE-GRAINED SOILS > 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT < 50	INORGANIC	PI > 7 AND PLOTS > "A" LINE	CL	LOW-PLASTICITY CLAY	
			ORGANIC	PI > 4 AND PLOTS < "A" LINE	ML	LOW-PLASTICITY SILT	
			INORGANIC	PI PLOTS > "A" LINE	CH	HIGH-PLASTICITY CLAY	
			ORGANIC	PI PLOTS < "A" LINE	MH	HIGH-PLASTICITY SILT	
SILTS AND CLAYS LIQUID LIMIT > 50		INORGANIC	LL (oven dried)/LL (not dried) < 0.75	OL	ORGANIC CLAY OR SILT		
		INORGANIC	LL (oven dried)/LL (not dried) < 0.75	OH	ORGANIC CLAY OR SILT		
		INORGANIC	LL (oven dried)/LL (not dried) < 0.75	PT	PEAT		
		ORGANIC	LL (oven dried)/LL (not dried) < 0.75	PT	PEAT		

NOTE: $Cu = D_{60}/D_{10}$

$$Cc = (D_{30})^2 / (D_{10} + D_{60})$$

BLOW COUNT

THE NUMBER OF BLOWS OF THE HAMMER REQUIRED TO DRIVE THE SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE. THE NOTATION 50/4 INDICATES 4 INCHES OF PENETRATION ACHIEVED IN 50 BLOWS.

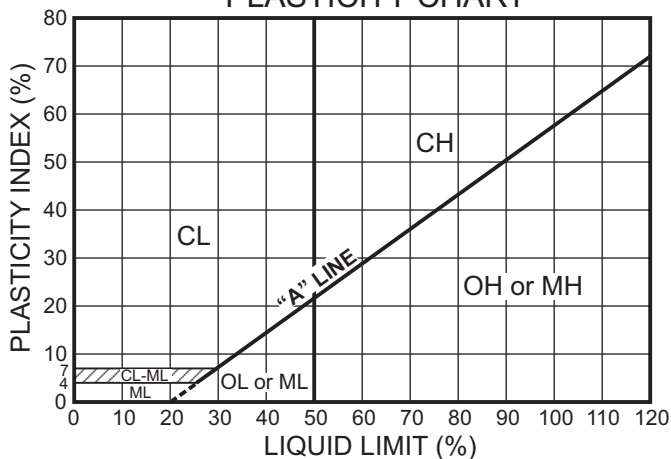
SAMPLE TYPES

- B BULK SAMPLE
- ST PUSHED SHELBY TUBE
- SPT STANDARD PENETRATION
- MC MODIFIED CALIFORNIA
- P PITCHER SAMPLE
- C ROCK CORE

ADDITIONAL TESTS

- CA - CHEMICAL ANALYSIS
- CN - CONSOLIDATION
- CP - COMPACTION
- DS - DIRECT SHEAR
- PM - PERMEABILITY
- PP - POCKET PENETROMETER
- Cor. - CORROSIVITY
- SA - GRAIN SIZE ANALYSIS
- (20%) - (PERCENT PASSING #200 SIEVE)
- SW - SWELL TEST
- TC - CYCLIC TRIAXIAL
- TU - CONSOLIDATED UNDRAINED TRIAXIAL
- TV - TORVANE SHEAR
- UC - UNCONFINED COMPRESSION
- WA - WASH ANALYSIS
- WATER LEVEL AT TIME OF DRILLING AND DATE MEASURED
- LATER WATER LEVEL AND DATE MEASURED

PLASTICITY CHART



LEGEND TO SOIL DESCRIPTIONS





APPENDIX B

LABORATORY TESTS

Samples from the subsurface study were selected for tests to establish the physical and engineering properties of the soils. The tests performed are briefly described below.

The natural moisture content and dry density were determined in accordance with ASTM D 2216 on selected samples recovered from the borings. This test determines the moisture content and density, representative of field conditions, at the time the samples were collected. The results are presented on the boring logs, at the appropriate sample depth.

Two samples of clayey soil were tested for expansive potential, using the Atterberg limits test, as per ASTM D-4318. The results are presented on the boring logs, at the appropriate sample depths.



COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT M

JEREMIAH ARMSTRONG

631 El Granada Boulevard
Half Moon Bay, California 94019

cell: 213-985-2950
mail@JeremiahArmstrong.com

April 8, 2020

VIA EMAIL

Coastside Design Review Committee
Chris Johnson (chrisjohnson_mcc@yahoo.com)
Katie Kostuik (info@fatpenstudios.com)
Olivia Boo (oboo@smcgov.org)
Ruemel Panglao (rpanglao@smcgov.org)

**Re: April 9, 2020 Committee Review of PLN2019-00162 / APN 047-151-120
El Granada Blvd. (Applicant: Wei Zheng)**

Dear Committee Members:

I write in opposition to applicant Wei Zheng's revised design plans, which are still incompatible with the Midcoast Design Review Standards and fall short of what the Committee requested at the February 13 meeting.

Specifically, although Mr. Zheng did add a first-floor roof and slightly set back the second floor as required by the Committee, he expanded the first floor "Office" by approximately 30 square feet, as shown in Sheet A1.03 (expanded rooms highlighted in red):



As a result, the “Office” roofline crosses the required 10-foot setback from the southside property line (my house) by nearly 4 feet. This expansion is shown on Sheets A0.02 and A1.03 of the revised plans. This unnecessary expansion encroaches upon my property, further impedes neighbors’ street level views, and does not provide sufficient spacing between houses. Here’s a highlighted version of Sheet A0.02 showing how the house extends over the setback, which is marked in yellow and the house in red:



Furthermore, at the February 13 meeting the Committee recommended that Mr. Zheng do the following: “Step down the master suite/living room/kitchen area to visually break up the roofline and follow the natural grade.” As shown on Sheet A2.02, Mr. Zheng did not incorporate this change at all. As a result, Mr. Zheng’s proposed house still appears to be distastefully high, which negatively impacts the views of neighbors who live across/up the street from the proposed house. Stepping down this segment of the house could substantially improve the appearance of the house and it is disappointing that Mr. Zheng ignored this Committee recommendation.

As shown on Sheet A1.03, Mr. Zheng’s revised plans add approximately 30 square feet to the garage—which affects Kayoko Barbour’s side of the property. I do not recall such an expansion being proposed during the February 13 meeting.

The second story master bedroom wall on the southside of the property still lacks sufficient articulation. Instead, it appears to be mostly a flat wall—which is unsightly from both my living room from which it is prominently visible and also from the street view. I ask that the Committee require an addition of some tasteful, moderate ornamentation to this section of the wall in order to provide sufficient articulation in compliance with the Design Review Standards. The pertinent portion of the wall is yellow highlighted in the following excerpt of Sheet A2.02:



Lastly, in view of the criticisms that Mr. Zheng expressed at the February 13 hearing regarding neighbors' opposition to his proposed project, it's worth noting that his actions since that meeting have been unneighborly. For instance, the Committee instructed Mr. Zheng to remove the story poles within one week of the meeting. However, he waited 13 days to remove the story poles—and that was only after I reached out to the County Planner on February 24 requesting the removal. In the meantime, during strong winds, the story pole flags continued to significantly pollute our yards and street. **Exhibit A** to this letter illustrates pollution that occurred over a four month period of time. Unfortunately, despite knowing about this pollution, Mr. Zheng never offered to clean up the litter. Instead, on March 29—while ignoring the County's COVID-19 shelter in place mandate—Mr. Zheng found it essential to visit the property to place "No Trespassing" signs provided by a firearms/hunting association along the property lines, including one strategically placed outside my living room window. **Exhibit B** to this letter are photographs of some of those signs. Ultimately, the neighborhood is disappointed because Mr. Zheng has not exhibited qualities expected in a neighbor—i.e., not abiding by the Committee's requirements and suggestions, not offering to clean up the litter, and by needlessly installing intimidating No Trespassing signs provided by a firearms/hunting association.

As detailed above, I ask that the Committee require Mr. Zheng to make additional revisions to his proposed plans and require that he present them at a subsequent meeting for thorough review.

Sincerely,


Jeremiah A. Armstrong

EXHIBIT

A



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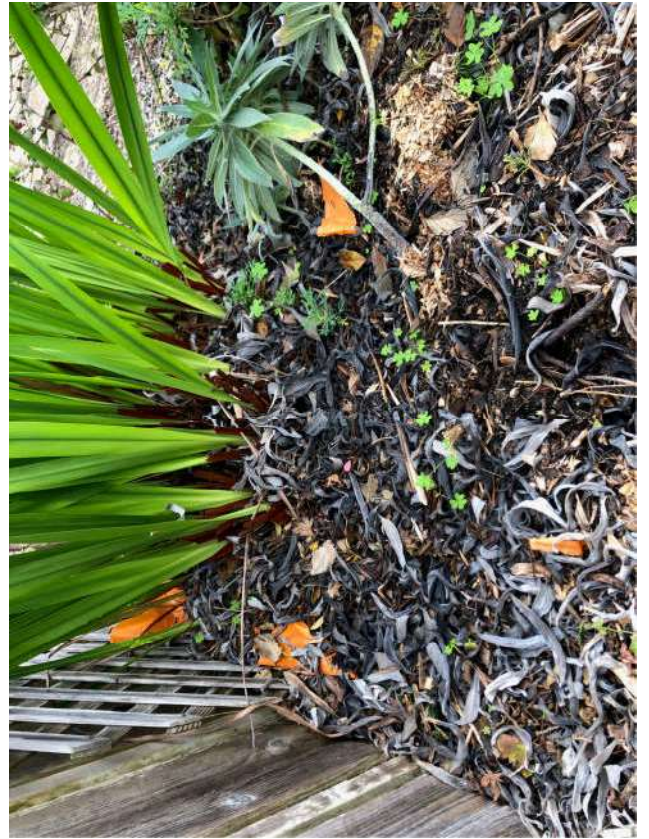
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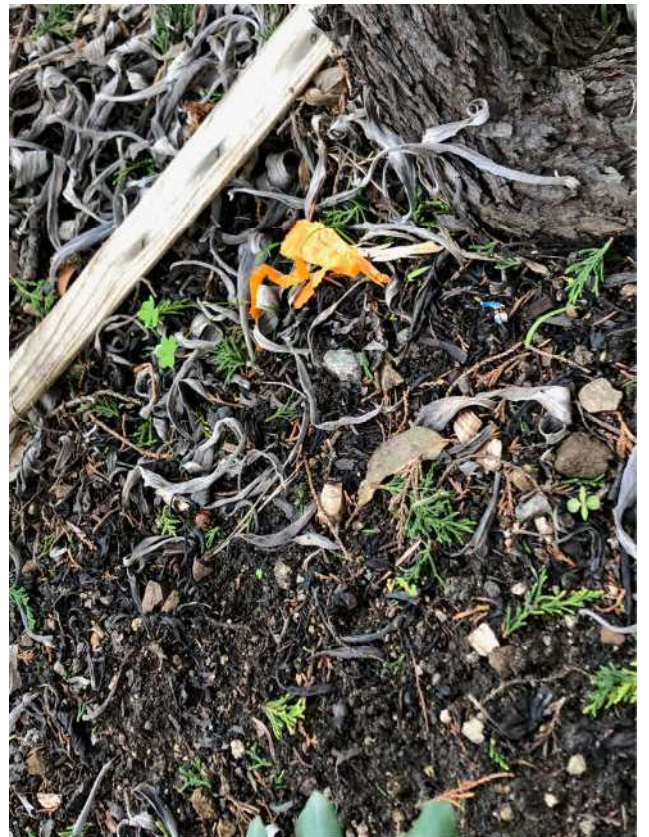
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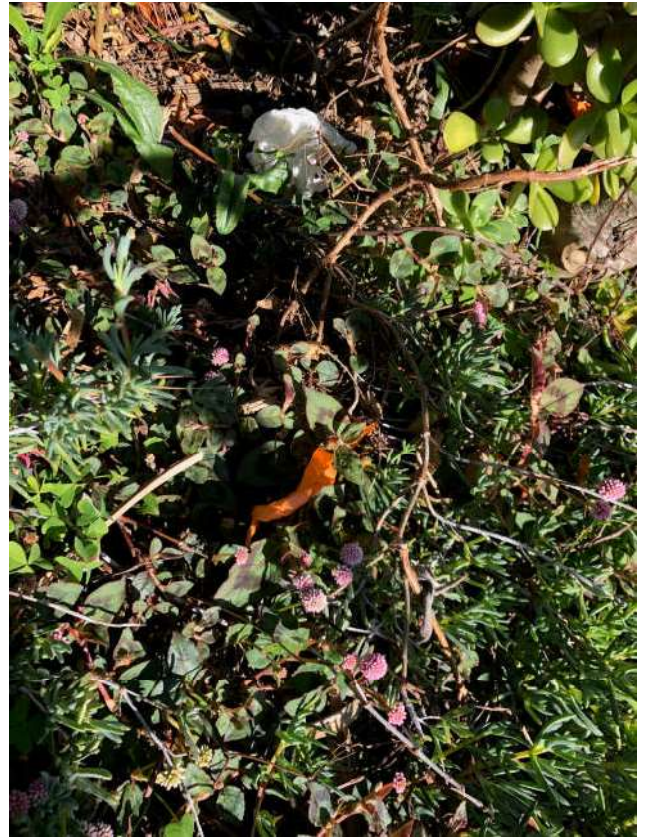
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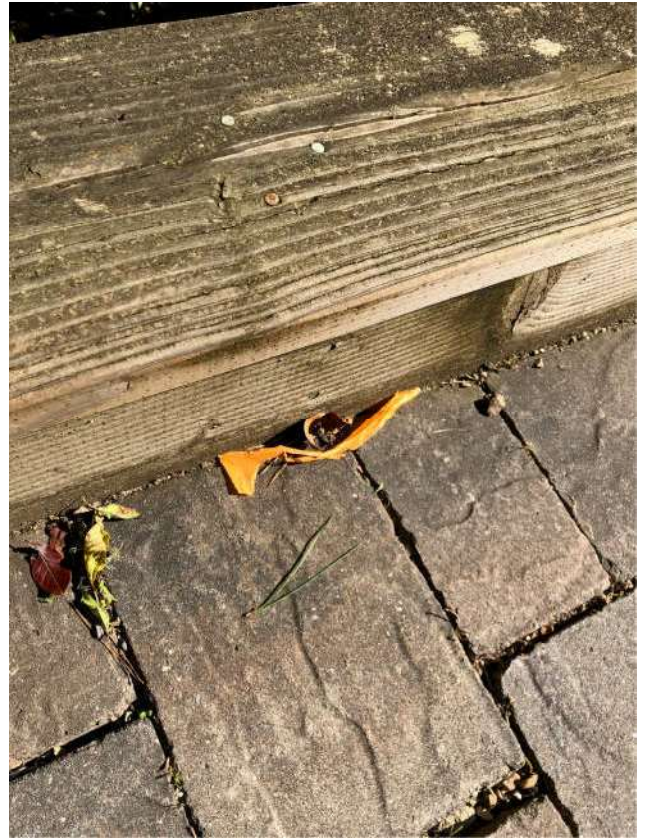
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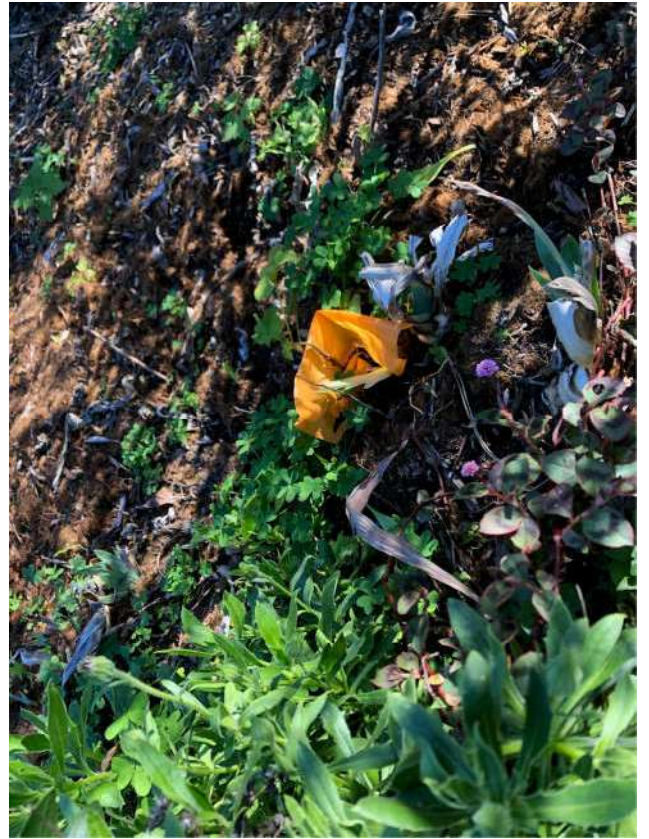
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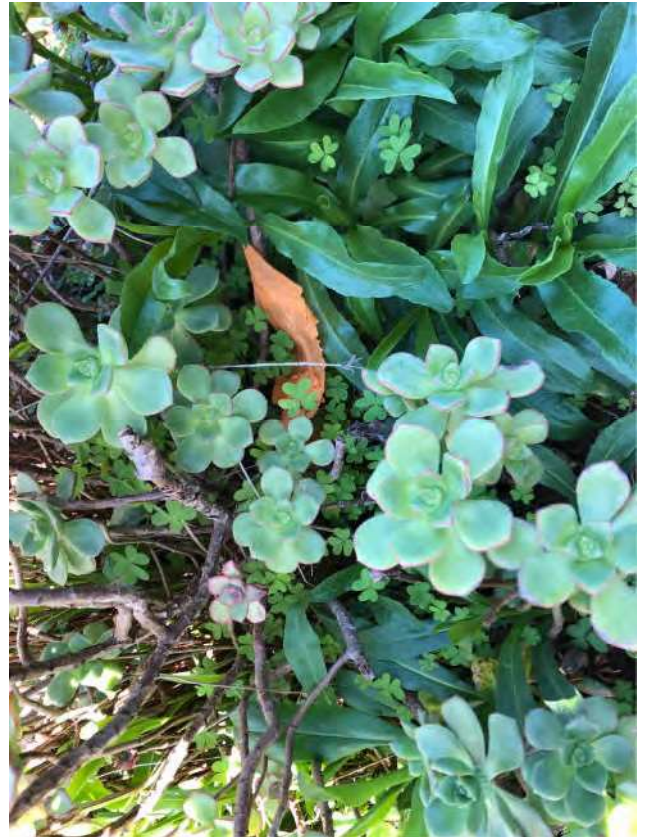
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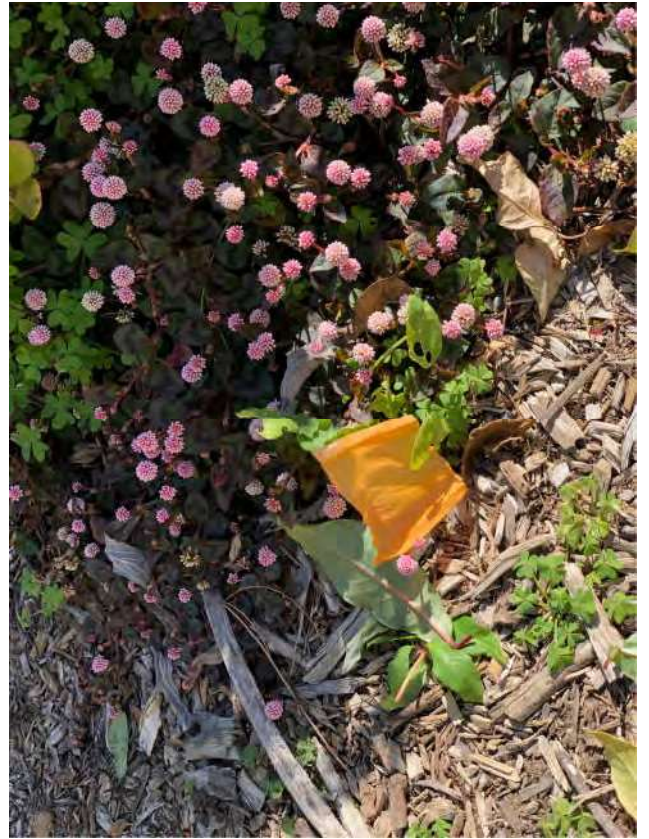
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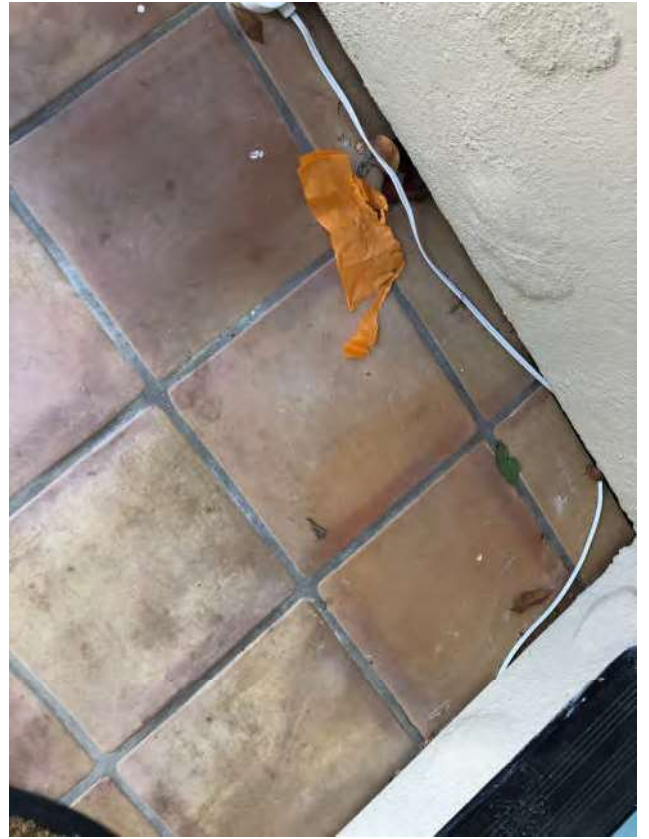
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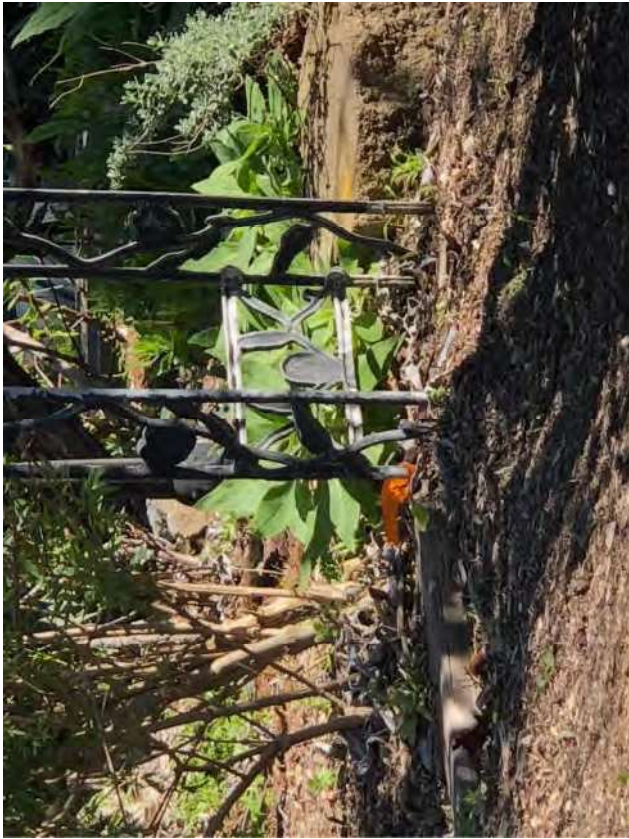
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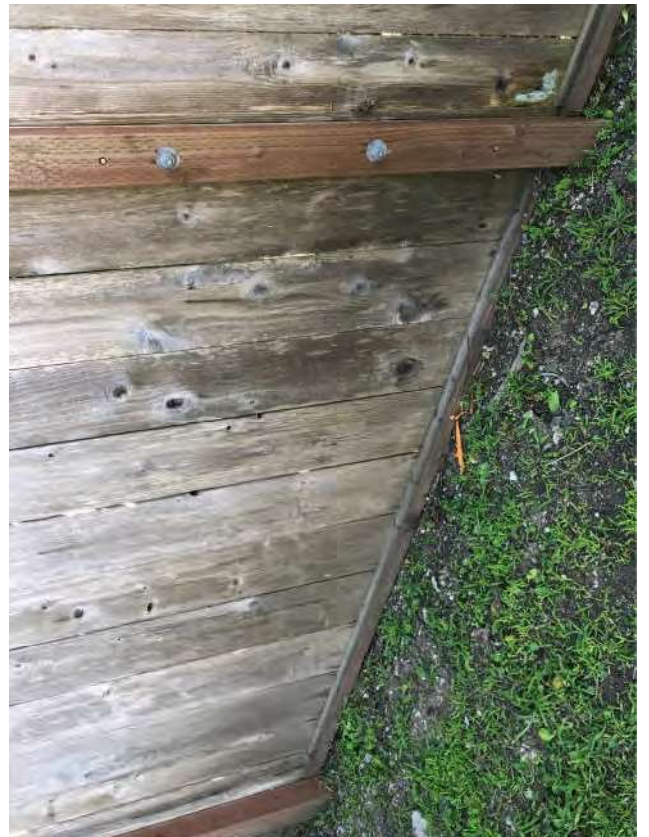
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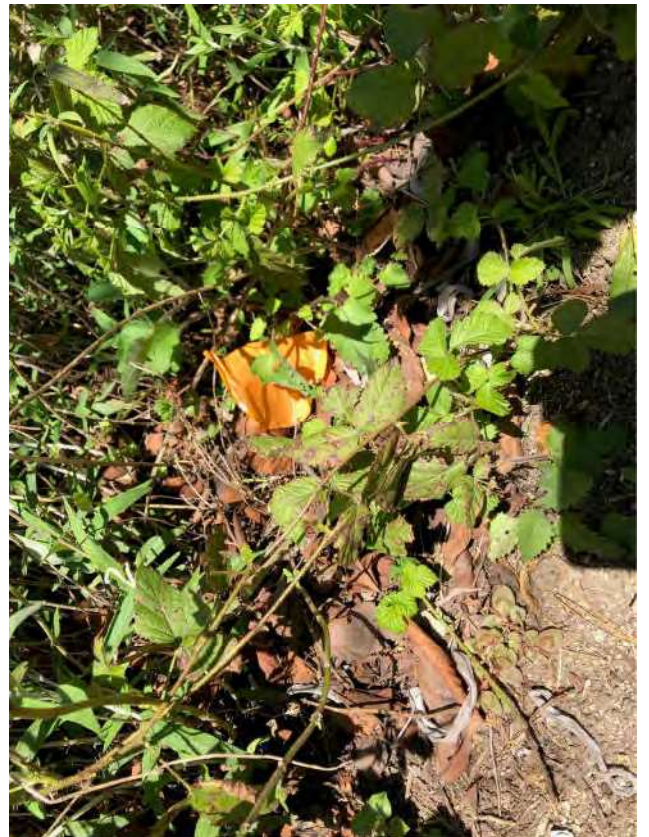
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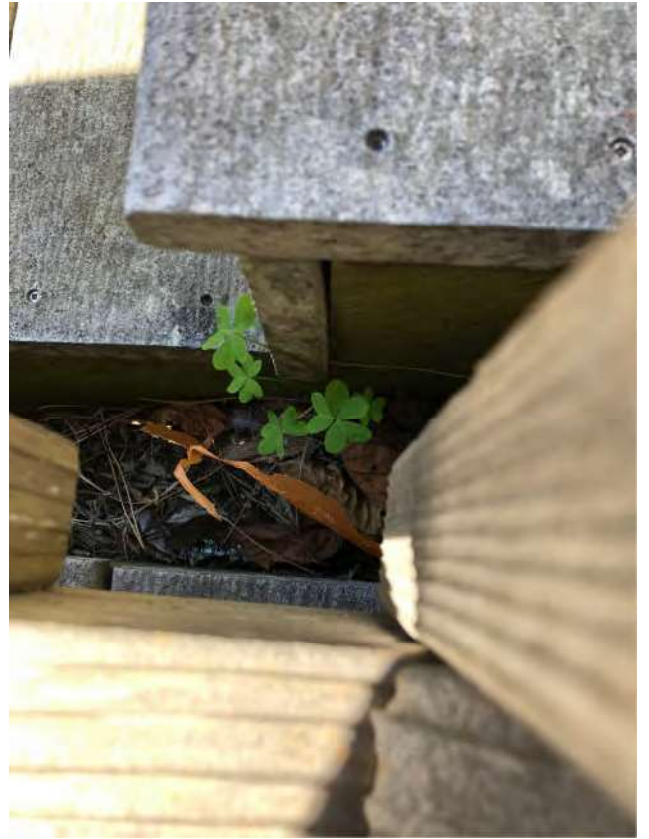
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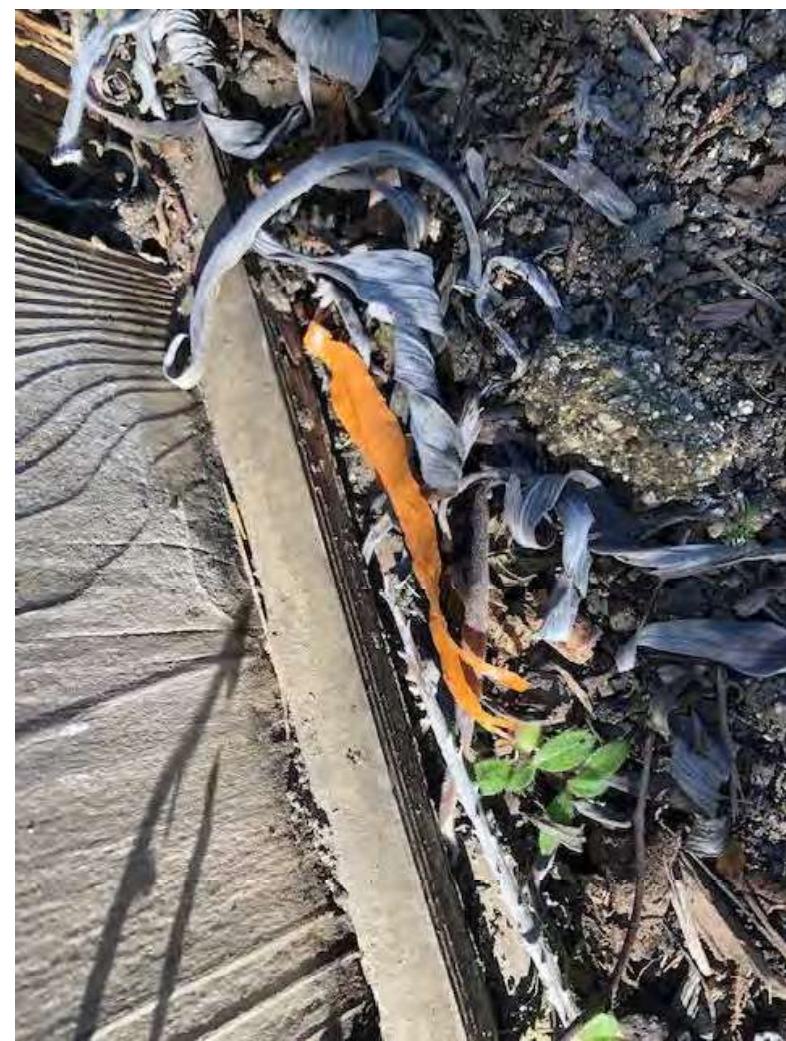


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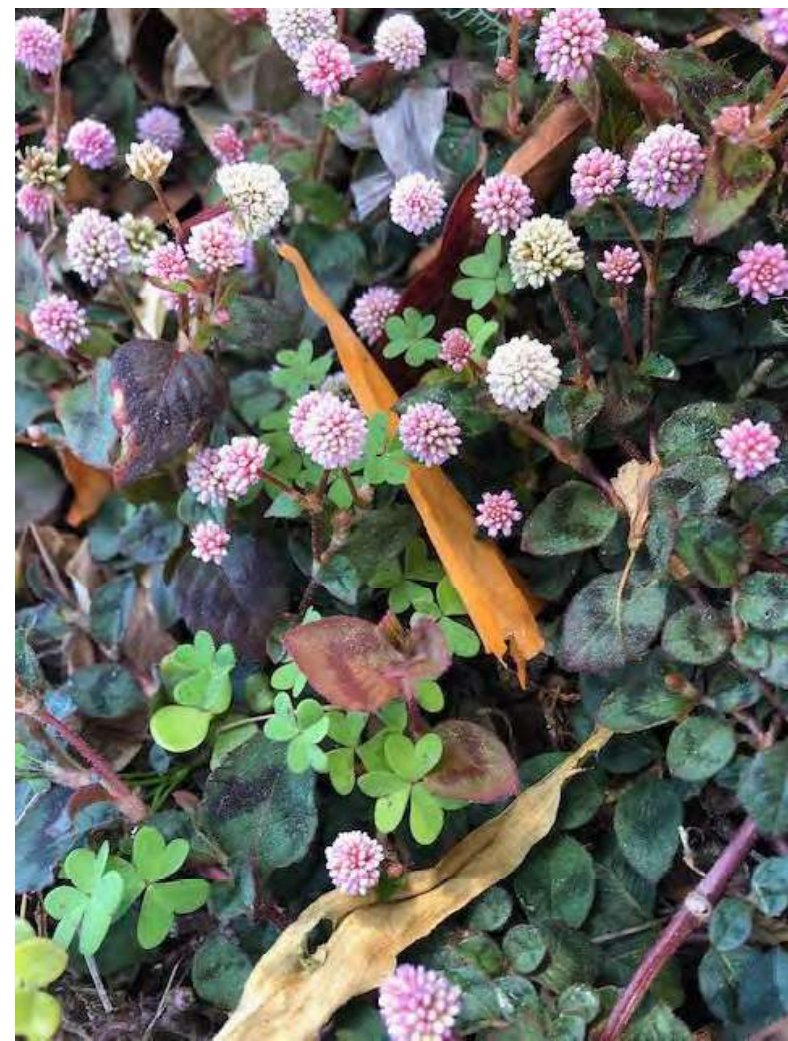


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EXHIBIT

B



