COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: June 10, 2020

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of (1) an Addendum to an adopted Initial Study/Mitigated Negative Declaration and (2) a Coastal Development Permit and Design Review Permit to allow construction of a new two-story, 4,350 sq. ft. residence, plus a 484 sq. ft. garage, and a 521 sq. ft. second unit located on a legal 12,424 sq. ft. parcel on Magellan Avenue in the unincorporated Miramar area of San Mateo County. Two (2) significant trees are proposed for removal. Minor grading is proposed. The project is appealable to the California Coastal Commission.

County File Number: PLN 2018-00154 (Bone Structure)

PROPOSAL

The applicant proposes to construct a new two-story, 4,350 sq. ft. residence, plus a 484 sq. ft. garage, and a 521 sq. ft. second unit on a 12,424 sq. ft. parcel. Pursuant to State law and County regulations, development of the second dwelling does not require planning permits or review by the Planning Commission. The property is located on Magellan Avenue, adjacent to a County park (Mirada Surf Park) to the north and single-family residences to the west, east and south. Minor grading is proposed. Two (2) significant trees are proposed for removal. One of the two trees (Monterey Cypress) proposed for removal, located by the entrance to Mirada Surf Park, is jointly owned with the County of San Mateo and managed by the County Parks Department. County Parks has requested removal of the tree and the property owner of the subject parcel provided concurrence.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review Permit, County File Number PLN 2018-00154, based on and subject to the required findings and conditions of approval listed in Attachment A.

SUMMARY

The project site is a relatively flat vacant lot located along Magellan Avenue in the unincorporated Miramar area of San Mateo County, within an area of developed parcels

with single-family homes of various architectural styles. The property is located on Magellan Avenue, adjacent to a County Park (Mirada Surf Park) to the north and single-family residences to the west, east and south. The entrance to Mirada Surf Park is directly east of the project site.

The project complies with the Vegetative, Water, Fish and Wildlife Resources Policies of the County's General Plan and the Sensitive Habitats Component of the County's Local Coastal Program (LCP). The 2018 Biological Report notes that, while no sensitive resources are present on the site, an intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Per LCP Policy 7.11, a 30-foot buffer is required from the stream centerline. The closest point of project disturbance occurs 32 feet from the centerline. As stated in the 2018 Biological Report, sensitive species such as California red-legged frogs and San Francisco garter snakes are highly unlikely to occur due to unsuitable habitat, distance from known occurrences, and barriers to movement posed by development and roadways.

The project complies with the Visual Quality Policies of the County's General Plan, the Visual Resources Component of the County's LCP, and the Design Review District Standards of the County's Zoning Regulations. The Coastside Design Review Committee (CDRC) considered this project at the regularly scheduled CDRC meeting on November 14, 2019, determined that the project is in compliance with applicable Design Review Standards, and recommended approval. The scale of the house is proportional and complimentary to other homes in the neighborhood. The project is architecturally compatible with homes in the immediate area and uses colors, materials, and landscaping that complement its surroundings.

Among the two significant trees proposed for removal is a 50-inch dbh (diameter at breast height) Monterey Cypress located adjacent to the property by the entrance to Mirada Surf Park which is jointly owned with the subject parcel's property owners and the County. The County Arborist found that efforts to prevent negative effects to this tree based on the proposed development would likely be insufficient long-term, potentially increasing the likelihood of failure due to almost daily on-shore wind events. Recognizing potential liability issues due to its close proximity to commonly use pedestrian paths and vehicular parking for Mirada Surf Park, the County Parks Department has requested removal of the tree and the property owner of the subject parcel provided concurrence.

The project also complies with the Urban Land Use Policies of the County's General Plan Locating and Planning New Development Component of the County's Local Coastal Program. The project proposes a house in an existing, developed urban area with access to services and utilities. In addition, regarding the cap of allowable dwelling units per year on the Midcoast, the subsequent building permit, active for 5 years, is likely to be and required to remain within this limit. The project also meets the County's zoning regulations, specifically the development standards of the S-94 Zoning District.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: June 10, 2020

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of (1) an Addendum to an adopted Initial Study/Mitigated Negative Declaration and (2) a Coastal Development Permit and Design Review Permit, pursuant to Sections 6328.4 and 6565.3 of the San Mateo County Zoning Regulations, to allow construction of a new two-story, 4,350 sq. ft. residence, plus a 484 sq. ft. garage, and a 521 sq. ft. second unit located on a legal 12,424 sq. ft. parcel (legality confirmed via Certificate of Compliance: PLN 2010-00154) on Magellan Avenue in the unincorporated Miramar area of San Mateo County. Two (2) significant trees are proposed for removal. One (1) of the two (2) trees (Monterey Cypress) proposed for removal is jointly owned with the County of San Mateo. Minor grading is proposed. The second dwelling unit is a ministerial project that does not require review by the Planning Commission. The project is appealable to the California Coastal Commission.

County File Number: PLN 2018-00154 (Bone Structure)

PROPOSAL

The applicant proposes to construct a new two-story, 4,350 sq. ft. residence, plus a 484 sq. ft. garage, and a 521 sq. ft. second unit on a 12,424 sq. ft. parcel. Pursuant to State law and County regulations, development of the second dwelling unit does not require planning permits or review by the Planning Commission. The property is located on Magellan Avenue, adjacent to a County park (Mirada Surf Park) to the north and single-family residences to the west, east and south. Minor grading is proposed. Two significant trees are proposed for removal. One of the two trees (Monterey Cypress) proposed for removal, located by the entrance to Mirada Surf Park, is jointly owned with the County of San Mateo and managed by the County Parks Department. County Parks has requested removal of the tree and the property owner of the subject parcel provided concurrence.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review Permit, County File Number PLN 2018-00154, based on and subject to the required findings and conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Ruemel Panglao, Project Planner, Telephone 650/363-4582

Applicant: Bone Structure

Owners: Paul and Ruth Huard

Location: Magellan Avenue, Miramar

APN: 048-013-920

Size: 12,424 sq. ft.

Existing Zoning: R-1/S-94/DR/CD (Single-Family Residential District/S-94 Combining District/Design Review/Coastal Development)

General Plan Designation: Medium Low Density Residential (2.4 – 6.0 dwelling units/net acre)

Local Coastal Plan Designation: Medium Low Density Residential

Sphere-of-Influence: Half Moon Bay

Existing Land Use: Undeveloped

Parcel Legality: Certificate of Compliance issued (PLN 2010-00154)

Water Supply: Coastside County Water District

Sewage Disposal: Granada Community Services District

Flood Zone: FEMA Flood Insurance Rate Map designation indicates parcel as Zone X, Areas of Minimal Flooding, Community Panel No. 06081C0252F, dated August 2, 2017.

Environmental Evaluation: An Initial Study/Mitigated Negative Declaration was prepared and circulated for public review and comment from May 10, 2012 to May 29, 2012, as required by the California Environmental Quality Act (CEQA). The IS/MND was adopted by the Zoning Hearing Officer on June 14, 2012. This report serves as an addendum to the adopted Initial Study/Mitigated Negative Declaration, analyzing this

permit application for a new single-family residence on the parcel, and demonstrating that subsequent environmental review is not required.

Setting: The project site is a relatively flat vacant lot located along Magellan Avenue in the unincorporated Miramar area of San Mateo County, within an area of developed parcels with single-family homes of various architectural styles. The property is located on Magellan Avenue, adjacent to a County Park (Mirada Surf Park) to the north and single-family residences to the west, east and south. The entrance to Mirada Surf Park is directly east of the project site.

Chronology:

Date/		Action
June 14, 2012	-	The Zoning Hearing Officer adopted the Initial Study and Mitigated Negative Declaration and approved Coastal Development and Design Review permits (PLN 2010-00154) to construct a single-family residence on the subject parcel. This project was never built, and the permits expired.
April 18, 2018	-	This current application is submitted for a single-family residence.
May 18, 2018	-	The project is deemed incomplete.
November 1, 2018	-	The County Arborist finds that a 50-inch DBH (diameter at breast height) Monterey Cypress, located by the entrance to Mirada Surf Park and jointly owned with the County of San Mateo (Tree No.1 as shown on TP-1 in the plan set (Attachment C)) stands to be heavily impacted by the construction and development of the property. The applicant is advised to consult with County Parks regarding the design and next steps.
July 9, 2019	-	Resubmittal received.
August 2, 2019	-	The project is determined to be compliant with the State's Model Water Efficient Landscape Ordinance.
September 19, 2019	-	The property owner and the County Parks Department concur on the removal of the jointly owned tree.
September 19, 2019	-	Staff deems the application complete.

November 14, 2019 - The Coastside Design Review Committee (CDRC) considers the project and recommends approval based on conformance with Design Review standards.

June 10, 2020 - Planning Commission public hearing.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

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

a. Vegetative, Water, Fish and Wildlife Resources

Policies 1.23 (*Regulate Development to Protect Vegetative, Water, Fish and Wildlife Resources*), 1.27 (*Protect Fish and Wildlife Resources*), and 1.29 (*Establish Buffer Zones*) seek to regulate land use and development activities to prevent significant adverse impacts on vegetative, water, fish and wildlife resources and to protect sensitive habitats. Further discussion regarding compliance with these policies can be found in Section A.2.b of this report.

b. Visual Resources

Policy 4.15 (*Appearance of New Development*) regulates development to promote and enhance good design, site relationships, and other aesthetic considerations. Policy 4.16 (*Supplemental Design Guidelines for Communities*) also encourages the County to have supplemental site and architectural design guidelines for communities to reflect local conditions, characteristics, and design objectives that are flexible enough to allow individual creativity. The proposed single-family residence is proposed on property in Miramar, in one of the County's Design Review districts. The Coastside Design Review Committee reviewed the project and found the project to be in compliance with the Design Review Standards for One-Family and Two-Family Residential Development in the Midcoast at their regular meeting on November 14, 2019. The project's compliance with applicable design review standards is discussed further in Section A.4 of this report, below.

c. Urban Land Use

Policy 8.30 (*Infilling*) encourages the infilling of urban areas where infrastructure and services are available. The project complies with this policy, as the subject site is located within a developed residential area. Water and sewer service connections are available for the project, as discussed below in Section A.2.a.

2. Conformance with the Local Coastal Program

A Coastal Development Permit (CDP) is required pursuant to Section 6328.4 of the County Zoning Regulations for development in the Coastal Development (CD) District. The parcel is located in a County scenic corridor and adjoins an area of sensitive habitat. The property is located in the California Coastal Commission (CCC) Appeals jurisdiction and involves a residential use that is the principally permitted use in the One-Family Residential (R-1) Zoning District. The County's granting of the CDP would be appealable to the California Coastal Commission.

Staff has determined that the project is in compliance with applicable Local Coastal Program (LCP) Policies, elaborated as follows:

a. Locating and Planning New Development

Policy 1.19 (*Ensure Adequate Public Services and Infrastructure for New Development in Urban Areas*) requires that no permit for development in the urban area shall be approved unless it can be demonstrated that it will be served with adequate water supplies and wastewater treatment facilities. As stated previously, the Coastside County Water District and the Granada Community Services District have confirmed adequate supply and treatment capacity to serve the parcel.

Policy 1.23 (*Timing of New Housing Development in the Midcoast*) limits the maximum number of new dwelling units built in the urban Midcoast to 40 units per calendar year so that roads, public services and facilities and community infrastructure are not overburdened by new residential development. As of the printing of this report, three building permits for new dwelling units have been issued in 2020. This requested permit would be valid for 5 years; therefore, the project is likely to be, and would be required to be, within the building permit limit.

b. Sensitive Habitats

Policies 7.3 (*Protection of Sensitive Habitats*), 7.5 (*Permit Conditions*), 7.34 (*Permit Conditions*), and 7.35 (*Preservation of Critical Habitats*) seek to prevent significant impacts to sensitive habitats. The proposal includes a Biological Impact Report (Attachment G) outlining potential impacts to sensitive habitats and appropriate avoidance and minimization measures. Per the Biological Impact Report (2018 Biological Report), dated January 5, 2018, prepared by Live Oak Associates, Inc., white-tailed kites, a California protected species, may utilize the site while breeding. Therefore, to minimize impacts related to potential site disturbance during the breeding season of migratory birds and locally occurring raptor species, implementation of Mitigation Measure 4 (Condition No. 17) is required to minimize harm to migratory birds and raptors as a result of project construction.

The 2018 Biological Report also notes that while no sensitive resources are present on the site, an intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. The closest point of project disturbance occurs 32 feet from the centerline of the stream. The required 30-foot buffer from the centerline is addressed in the discussion on LCP Policy 7.11 below. However, as stated in the 2018 Biological Report, California red-legged frogs and San Francisco garter snakes are highly unlikely to occur on the site due to the distance between the site and known occurrences of these species (i.e. the closest sightings are more than one mile from the site), the unsuitability of habitat for breeding and dispersal both on and adjacent to the site (e.g. lack of aquatic resources onsite, shallow intermittent channel adjacent to the site, and nearby pond that holds water seasonally), and the barriers to movement between the site and known populations of these species posed by development and major roadways, including Cabrillo Highway (Highway 1).

Policy 7.11 (*Establishment of Buffer Zone*) requires a 30-foot buffer from the midpoint of intermittent streams where no riparian vegetation exists along the riparian corridor. Per the 2018 Biological Report (Attachment G), the intermittent stream located just beyond the rear property line does not contain the plant species associated with riparian vegetation as defined by LCP Policy 7.7 (*Definition of Riparian Corridors*); therefore, the house, necessary grading, and landscape and hardscape improvements are required to maintain a 30-foot buffer from the stream centerline. The proposed house and site improvements are outside of the prescribed buffer zone as they are set back at least 30 feet from the rear property line.

Policy 7.13 (*Performance Standards in Buffer Zones*) requires the minimization of vegetation removal. Per the recommendation of the CDRC (Attachment D), the myoporum shrubs along the west property line, including those in the required buffer zone, are to be retained as reflected in Condition 2(c). Two (2) trees are proposed to be removed within the buffer zone, one (1) 17-inch DBH Monterey Pine (Tree No.11) and one (1) 31-inch DBH Monterey Cypress (Tree No.16). Per the Dahl Arborist Report (Attachment F), the Monterey pine is in poor condition and the Monterey cypress is dead.

c. Visual Resources

Policies 8.9(a) and 8.9(b) (*Trees*) requires new development to minimize tree removal and to protect significant trees per the Significant Tree ordinance. Two (2) significant trees are proposed for removal and minor grading is proposed. One (1) of the two (2) trees, a 17-inch DBH Monterey Cypress, is in poor condition as discussed in Section A.2.b of this report.

The second tree proposed for removal, a 50-inch DBH Monterey Cypress, is located by the entrance to Mirada Surf Park and is jointly owned with the subject parcel's property owners and the County of San Mateo and managed by the County Parks Department. In his review, the County Arborist found that efforts to prevent negative effects to this tree based on the proposed development would likely be insufficient long-term. He stated that the large amount of pruning that would be necessary to accommodate construction and the development would negatively impact the condition of the tree. In addition, the County Arborist stated that the construction of the proposed driveway and utility trench proposed to be installed within the dripline of the tree in close proximity to its trunk could cause the root system to be structurally compromised, potentially increasing the likelihood of failure of almost daily on-shore wind events.

Recognizing potential liability issues of the tree's potential failure due to its close proximity to commonly use pedestrian paths and vehicular parking for Mirada Surf Park, after consultation with Real Property Services and the County Arborist, County Parks has requested removal of the tree and the property owner of the subject parcel provided concurrence. Condition 21 has been added by the County Parks Department to require its removal. In their review, the CDRC recommended the replacement of the subject tree, reflected in Condition 2(a).

Policy 8.12(a)(1) (*General Regulations*) applies the Design Review Zoning District to urbanized areas of the Coastal Zone, which includes

Miramar. The project is, therefore, subject to Design Review criteria established by Section 6565.20 of the Zoning Regulations. The Coastside Design Review Committee (CDRC) considered this project at the regularly scheduled CDRC meeting on November 14, 2019, determined that the project is in compliance with applicable Design Review Standards, and recommended approval. See further discussion in Section A.4.

Policy 8.12(b) *(General Regulations)* requires new development and landscaping to be located and designed so that ocean views are not blocked from public viewing points such as public roads and publicly-owned lands. The project complies with this policy because the ocean views are already obstructed from public viewing points based on the proposed location by adjacent structures and existing mature trees and other vegetation on and adjacent to the subject parcel.

Policy 8.13 (*Special Design Guidelines for Coastal Communities*) establishes design guidelines for Montara, Moss Beach, El Granada, and Miramar. The proposed residence complies with these guidelines as follows:

(1) On-site grading is not extensive and only limited to standard construction activity.

(2) The proposed materials for the house, such as wood, have a natural appearance.

(3) The proposed house design uses a flat roof to accommodate the respective architectural style which the CDRC has determined is compatible with the character of the surrounding area. A portion of the roof is also being used to accommodate a green roof installation.

(4) The proposed house is designed to be compatible with other houses in the area since the proposed overall lot coverage of 22.9 percent (2,849 sq. ft.) is within the maximum allowed of 30 percent (3,727 square feet). Additionally, the total floor area proposed is 4,834 sq. ft., lower than the maximum allowed of 6,200 square feet.

d. Shoreline Access

Policy 10.1 (*Permit Conditions for Shoreline Access*) requires some provision for shoreline access for development between the sea and nearest road. The project site is located between the nearest public road, Cabrillo Highway, and the sea. The shoreline can be easily

accessed by pedestrians from the entrance to Mirada Surf Park adjacent to the northeast property line or the entrance to Mirada Surf Beach at the intersection of Magellan Avenue and Mirada Road. The available parking along the Magellan Avenue right-of-way also allows visitors a convenient mode of accessing the two entrances along the street. Therefore, the project does not need to provide additional shoreline access improvements.

3. Conformance with S-94 District Development Standards

The proposal complies with the property's R-1/S-94/DR/CD Zoning designation, as indicated in the following table:

	S-94 Development Standards	Proposed
Building Site Area	10,000 sq. ft.	12,424 sq. ft. (existing)
Maximum Building Site Coverage	(30%) 3,727 sq. ft.	(22.9%) 2,849 sq. ft.
Maximum Floor Area	6,200 sq. ft.	4,834 sq. ft.
Minimum Front Setback	20 ft.	20 ft.
Minimum Rear Setback	20 ft.	30 ft..
Minimum Right Side Setback	10 ft.	11 ft.
Minimum Left Side Setback	10 ft.	18 ft.
Maximum Building Height	28 ft.	27 ft. 3 in.
Minimum Parking Spaces	2	2
Facade Articulation	Finding by CDRC	Complies

The proposed two-story single-family residence meets height and setback standards and complies with maximum lot coverage and floor area, as well as the façade articulation requirements of the S-94 Zoning District. The project's design, scale, and size are compatible with other residences located in the vicinity.

4. Conformance with Design Review District Standards

The Coastside Design Review Committee (CDRC) considered the project at the regularly scheduled CRDC meeting on November 14, 2019. At that meeting, the CDRC adopted the findings to recommend project approval (Attachment D), 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:

a. *Section 6565.20 (D) ELEMENTS OF DESIGN; 1. Building Mass, Shape and Scale; Neighborhood Scale*: The scale of the house is proportional and complimentary to other homes in the neighborhood.

b. *Section 6565.20 (D) ELEMENTS OF DESIGN; 4. Exterior Materials and Colors*: The exterior materials and colors complement the style of the house and the neighborhood.

c. *Section 6565.20 (F) LANDSCAPING, PAVED AREAS, FENCES, LIGHTING AND NOISE; 1. Landscaping*: The landscape design has been sensitively thought out with the utilization of drought tolerant plants.

B. ENVIRONMENTAL REVIEW

An Initial Study/Mitigated Negative Declaration (IS/MND) was prepared and circulated for public review and comment from May 10, 2012 to May 29, 2012, as required by the California Environmental Quality Act (CEQA). The IS/MND was adopted by the Zoning Hearing Officer on June 14, 2012. This permit application for a new single-family dwelling on the parcel requires no subsequent environmental review or major revisions to the adopted Initial Study/Mitigated Negative Declaration. As discussed previously, this staff report constitutes an addendum to the adopted MND, as provided for by CEQA Guidelines Section 15164. The project, as evaluated against the criteria in CEQA Guidelines Section 15162, does not include substantial changes that require major revisions to the adopted IS/MND based on the following: (1) No new significant environmental effects were identified by Staff during review of this new permit request; (2) There have been no changes in circumstances on or around the project site; and (3) No new information of substantial importance, which was not known previously and could not have been known, has been identified.

Pursuant to CEQA Guidelines Section 15164, an addendum is appropriate where some changes or additions to a previously adopted negative declaration are necessary, but none of the conditions described in Section 15162 requiring the preparation of a subsequent environmental document have occurred. The minor changes required to the adopted IS/MND include an update to the project description to reflect a reduction in proposed floor area compared to the originally approved structure from 2012. The applicant provided supplemental/updated reports which document current site conditions, including the hydrologic, geotechnical, and biological conditions. Based on the County's review of these reports, staff has confirmed that there have been no changes in circumstances on or around the project site that would require the preparation of a subsequent environmental document. The single-family residence proposed in this application does not substantially change results of the previous assessments, and no changes are required to other portions of the Initial Study checklist. The project also does not present any significant impacts that have not already been addressed by the IS/MND when reviewed against the County's current version of the Initial Study Checklist. This report constitutes an addendum to the adopted Initial Study/Mitigated Negative Declaration.

As shown in Attachment A, Staff has made the following minor revisions to mitigation measures of the IS/MND for clarity and to strengthen the required mitigation:

a. **Mitigation Measure 1**: Revision made to clarify the requirement for buffer zone marking/protection.

b. **Mitigation Measure 4**: Revision made to reflect currently accepted nesting bird survey protocols per the project biologist (Attachment H).

c. **Mitigation Measure 5**: Revision made to acknowledge changes in County review agencies.

d. **Mitigation Measure 6:** Revision made to align with County Noise Ordinance.

Mitigation Measure 2 requires the applicant to acquire a tree removal permit for any tree removals associated with construction of the project; however, the associated Design Review permit includes authorization for tree removal, so a separate tree removal permit is not necessary.

C. REVIEW BY THE MIDCOAST COMMUNITY COUNCIL (MCC)

In correspondence on May 21, 2018, the Midcoast Community Council (MCC) requested clarification on whether a non-habitable ground floor with break-away walls would be required due based on the property location in a tsunami zone. Their determination was based on a map created by Cal OES (California Governor's Office of Emergency Services). Local Coastal Program Policy 9.2 calls out specific adopted maps for use in project review with respect to potential hazard areas such as the Geotechnical Hazards Synthesis Map and the Natural Hazards Map in the Natural Hazards Chapter of the General Plan. On these cited maps, the location of the project is not in a tsunami zone.

D. REVIEW BY THE CALIFORNIA COASTAL COMMISSION

The California Coastal Commission provided comments in an email dated May 23, 2018 which suggested the review of compliance with policies of the Sensitive Habitat, Visual Resources, and Shoreline Access Components of the Local Coastal Program. Regarding sensitive habitat, the CCC recommends the project be evaluated against LCP Policy 7.11 (*Establishment of Buffer Zone*) and standards contained in the Standards For Design For One-Family And Two-Family Residential Development (Coastside Design Review Standards) in the Midcoast regarding the protection of streams and drainages (Section 6565.20(C)(1)(c). The proposed development footprint is outside of the required 30-foot buffer zone and also received a recommendation of approval from the CDRC which confirms the project's compliance with the Coastside Design Review Standards. Further discussion can be found in Sections A.2(b), A.2(c), and A.4 of

this report. In addition, the proposal was reviewed by the Department of Public Works and the County Drainage Section for compliance with the County Drainage policy which requires that post-development water flows off-site do not exceed pre-development flows, ensuring that there will not be an increase in drainage to the intermittent stream located outside of the property adjacent to the northwest property line boundary.

For visual resources, the CCC suggests review against LCP Policy 8.18 (*Development Design*) which does not apply for this project because it is in an urban area. However, they also note that the project must adhere to LCP Policy 8.13(a) (*Special Design Guidelines for Coastal Communities*). Further discussion regarding the project's compliance can be found in Section A.2(c) of this report.

With respect to shoreline access, the CCC recommends evaluation of the project against LCP Policy 10.1 (*Permit Conditions for Shoreline Access*). Further discussion can be found in Section A.2(d) of this report.

E. REVIEWING AGENCIES

Department of Public Works
Midcoast Community Council
California Coastal Commission
Coastside Fire Protection District
Granada Community Services District
Coastside County Water District
County Parks Department
County Drainage Section
County Geotechnical Section

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Project Plans
D. Coastside Design Review Committee Recommendation Letter (dated January 15, 2020)
E. Sigma Prime Geotechnical Study (dated November 2017)
F. Dahl Arborist Report (dated September 1, 2018)
G. Live Oak Associates Biological Impact Report (dated January 5, 2018)
H. Live Oak Associates Memorandum (dated May 28, 2018)
I. California Historical Resources Information System Review Letter (dated May 21, 2018)
J. Initial Study/Mitigated Negative Declaration for PLN 2010-00154 (Adopted June 14, 2012)
   Attachments of IS/MND:
   1. Vicinity Map
   2. Project Plans

3. Live Oak Associates, Inc., Biological Impact Report – March 2012

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2018-00154 Hearing Date: June 10, 2020

Prepared By: Ruemel Panglao
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That only minor modifications to the adopted Mitigated Negative Declaration are required and are provided in the Addendum included in the June 10, 2020 Planning Commission staff report, and that the minor modifications do not constitute substantial changes requiring major revisions to the previously adopted Mitigated Negative Declaration, and no new mitigation measures are required.

2. That the San Mateo County Planning Commission has considered the Addendum included in the June 10, 2020 staff report, along with the previously adopted Mitigated Negative Declaration, and determined that no new significant environmental effects or substantial increase in the severity of the environmental effects will occur and therefore that further environmental review is not required, pursuant to Section 15162 of the CEQA Guidelines.

For the Coastal Development Permit, Find:

3. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms to the plans, policies, requirements and standards of the San Mateo County Local Coastal Program. Specifically, the project complies with policies regarding the availability of utilities, protection of sensitive resources, and design review standards.

4. Where the project is located between the nearest public road and the sea, or the shoreline of Pescadero Marsh, that the project is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act of 1976 (commencing with Section 30200 of the Public Resources Code). The project is located between the nearest public road and the sea; shoreline access exists via Magellan Avenue and adjacent Mirada Surf Park and Beach.

5. That the project conforms to the specific findings required by policies of the San Mateo County Local Coastal Program.

6. That the number of building permits for construction of single-family residences other than for affordable housing issued in the calendar year does not exceed the limitations of Policies 1.22 and 1.23 as stated in Section 6328.19. As of the printing of this report, three building permits for new dwelling units have been issued in 2020. This requested permit would be valid for 5 years; therefore, the project is likely to be, and would be required to be, within the building permit limit.

Regarding the Design Review, Find:

7. The project, as proposed and conditioned, has been reviewed 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 Zoning Regulations, specifically elaborated as follows:

    a. *Section 6565.20 (D) ELEMENTS OF DESIGN; 1. Building Mass, Shape and Scale; Neighborhood Scale:* The scale of the house is proportional and complimentary to other homes in the neighborhood.

    c. *Section 6565.20 (D) ELEMENTS OF DESIGN; 4. Exterior Materials and Colors:* The exterior materials and colors complement the style of the house and the neighborhood.

    d. *Section 6565.20 (F) LANDSCAPING, PAVED AREAS, FENCES, LIGHTING AND NOISE; 1. Landscaping:* The landscape design has been sensitively thought out with the utilization of drought tolerant plants.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The project shall be constructed in compliance with the plans approved by the Planning Commission on June 10, 2020 and as reviewed by the Coastside Design Review Committee on November 14, 2019. 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 the 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 applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee:

    a. Plant one (1) 24-inch box evergreen tree on the east side of the driveway near Magellan Avenue as replacement for the removal of existing Cypress tree located at the entrance to Mirada Surf Beach adjacent to the property that is jointly owned by the property owner and the County of San Mateo.

    b. Plant twenty-four (24) 5-gallon shrubs that would grow to a minimum height of 6 feet in an alternating pattern to create a natural fence on the west side of the property.

    c. Protect and do not remove the existing Myoporum shrubs along the edge of the west border of the site.

    d. Place the mailbox as shown on the artistic renderings and replace the stucco with (T1) porcelain tile as shown on the materials/finishes board.

    e. On the lighting plans, replace the F4 lighting in the rear outside patio with a domed light facing downward.

    f. Add 3 ceiling recessed lights (between gridlines J and O) on the rear entrance on the rear elevation.

    g. Use stamped or textured stucco and soften color from white to a more earthen tone to blend with the (T1) porcelain tile.

    h. Keep the front fence with a horizontal design, 50 percent open slats, and composite wood or painted steel (painted to match the composite wood siding).

    i. Pervious materials shall be used throughout the landscaped areas and outdoor patios.

3. 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.

4. 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.

5. 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.

6. All new power and telephone utility lines 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 Department of Public Works, the Coastside Fire Protection District, the Coastside County Water District, and the Granada Community Services District.

8. No site disturbance shall occur, including any tree/vegetation removal or grading, until a building permit has been issued.

9. 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 Magellan Avenue or the entrance to Mirada Surf Beach adjacent to the property. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on Magellan Avenue or the entrance to Mirada Surf Beach adjacent to the property. There shall be no storage of construction vehicles in the public right-of-way or the entrance to Mirada Surf Beach adjacent to the property.

10. The exterior colors and materials as conditioned by 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.

11. At the building permit application stage, the project shall demonstrate compliance with the Performance Approach of the Water Efficient Landscape Ordinance (WELO) and provide the required forms.

12. Installation of the approved landscape plan is required prior to final inspection.

13. At the building permit application stage, the applicant shall submit a tree protection plan which protects on- and off-site trees within the proximity of grading and/or construction activities and includes the following measures:

    a. Identify, establish, and maintain tree protection zones throughout the entire duration of the project.

b. Isolate tree protection zones using 5-foot tall orange plastic fencing supported by poles pounded into the ground, located at the driplines as described in the arborist's report.

c. Maintain tree protection zones free of equipment and materials storage; contractors shall not clean any tools, forms, or equipment within these areas.

d. If any large roots or large masses of roots need to be cut, the roots shall be inspected by a certified arborist or registered forester prior to cutting as required in the arborist's report. Any root cutting shall be undertaken by an arborist or forester and documented. Roots to be cut shall be severed cleanly with a saw or toppers. A tree protection verification letter from the certified arborist shall be submitted to the Planning Department within five (5) business days from site inspection following root cutting.

e. Normal irrigation shall be maintained, but oaks shall not need summer irrigation, unless the arborist's report directs specific watering measures to protect trees.

f. Street tree trunks and other trees not protected by dripline fencing shall be wrapped with straw wattles, orange fence, and 2 by 4 boards in concentric layers to a height of eight (8) feet.

g. Prior to issuance of a building permit or demolition permit, the Planning and Building Department shall complete a pre-construction site inspection, as necessary, to verify that all required tree protection and erosion control measures are in place.

14. The property owner(s) shall coordinate with the project planner to record the Notice of Determination and pay an environmental filing fee of $2,406.75 (or current fee), as required under Fish and Game Code Section 711.4(d), plus a $50 recording fee to the San Mateo County within four (4) working days of the final approval date of this project.

The following conditions of approval impose the mitigation measures identified in the certified IS/MND, with minor revisions made for clarity and strengthening of the required mitigation (changes shown in tracked changes format):

15. **Mitigation Measure 1:** Establish a minimum 30-foot buffer zone from the centerline of the stream to the nearest point of the ~~structure~~ development in compliance with San Mateo County Local Coastal Program (LCP) Policy 7.11, which requires a 30-foot buffer zone from the midpoint of an intermittent stream absent riparian vegetation.

16. **Mitigation Measure 2:** Require a tree removal permit from the County in the event that removal of trees are required as part of the development scope.

17. **Mitigation Measure 3:** Implement best management practices (BMPs) for erosion and sediment control during all phases of building to include pre- and post-construction activities.

18. **Mitigation Measure 4:** A qualified biologist should conduct a pre-construction migratory bird and raptor survey of all onsite trees within 250 feet of the proposed development footprint within 14 days of the onset of ground disturbance. If such species were detected, a suitable activity-free buffer should be established around all active nests. The precise dimension of the buffer (up to 250 feet) would be determined at that time and may vary depending on such factors as nest location, species, and line of sight to the construction area. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.
~~Require a pre-construction site survey of all on-site trees, within a site radius of up to 250 feet, to be conducted by a qualified biologist for the potential presence of raptors, in the event that the building construction activity occurs during the breeding season (February 1 to August 31). Upon successful identification of active nests and to ensure that no species are seriously affected, a disturbance-free buffer shall be established until the young have grown to be independent of their parents, subject to confirmation by the qualified biologist.~~

19. **Mitigation Measure 5:** The applicant shall submit a permanent stormwater management plan in compliance with the County's Drainage Policy and NPDES (National Pollutant Discharge Elimination System) requirements for review and approval by the ~~Department of Public Works~~ Building Inspection Section's Drainage Section.

20. **Mitigation Measure 6:** 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.

    ~~Noise levels produced by construction shall not exceed the 80-dBA level at any one moment. Construction activity shall be limited to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction operations shall be prohibited on Sunday and any national holiday.~~

Building Inspection Section

21. Project is subject to a building permit from the San Mateo County Planning and Building Department.

Drainage Section

22. Prior to the issuance of the building permit, the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Drainage Section 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 Drainage Section for review and approval.

Geotechnical Section

23. A geotechnical report is required at the building permit stage.

Department of Public Works

24. Prior to the issuance of the building permit, 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.

25. 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. The applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right of-way.

26. 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.

County Parks Department

27. The 50-inch dbh (diameter at breast height) Monterey Cypress, located by the entrance to Mirada Surf Park and jointly owned with the County of San Mateo (Tree No.1 as noted on Sheet TP-1) shall be removed.

Coastside Fire Protection District

28. Coastside Fire Protection District (CFPD) access shall be within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be a minimum of 20-foot wide, all weather capability, and able to support a fire apparatus weighing 75,000 pounds. Where a fire hydrant is located in the access, a minimum of 26 feet is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly maintained road to the property. Grades over 15 percent shall be paved and no grade shall be over 20 percent. When gravel roads are used, it shall be Class 2 base or equivalent compacted to 95 percent. Gravel road access shall be certified by an engineer as to the material thickness, compaction, all weather capability, and weight it will support.

29. All buildings that have a street address shall have the number of that address on the building, mailbox, or other type of sign at the driveway entrance in such a manner that the number is easily and clearly visible from either direction of travel from the street. 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. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. An address sign shall be placed at each break of the road where deemed applicable by the Coastside Fire Protection District. Numerals shall be contrasting in color to their background and shall be no less than 4 inches in height and have a minimum 1/2-inch stroke. Remote signage shall be a 6-inch by 18-inch green reflective metal sign.

30. 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.

31. A fire flow of 1,500 gallons per minute (gpm) for 2 hours with a 20 pounds per square inch (psi) residual operating pressure must be available as specified by additional project conditions to the project site. The applicant shall provide documentation including hydrant location, main size, and fire flow report at the building permit application stage. Inspection required prior to CFPD's final approval of the building permit or before combustibles are brought on-site.

32. 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.

33. Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. This includes the requirement for hardwired, interconnected detectors equipped with battery backup and placement in each sleeping room in addition to the corridors and on each level of the residence.

34. 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 Inspection Section for review and approval by the authority having jurisdiction.

35. A statement that the building will be equipped and protected by automatic fire sprinklers must appear on the title page of the building plans.

Coastside County Water District

36. Adequate backflow protection must be provided and shown on the landscape plans.

37. A dedicated irrigation meter will be required for the project because the amount of irrigated landscaping exceeds 5,000 square feet.

38. Plan notes incorrectly refer to Montara Water and Sanitary District (MWSD) standards and must be corrected accordingly. This project is within Coastside County Water District's service area and must comply with Coastside County Water District's regulations.

39. The meter location must be out of driveway or parking areas.

40. Size of water service marked on plans must be corrected since Coastside County Water District requires separate services for fire service and domestic service. The capacity assigned to this parcel is a 5/8-inch meter served from a 3/4-inch water service from the main.

41. Fire service plans were not provided but the minimum size for a single-family residence is a 1-inch fire meter serviced from a 1-inch water service from the main.

42. The project is required to comply with Coastside County Water District's Indoor Water Use Efficiency Ordinance which includes regulations on water metering and water use efficiency specifications for plumbing fixtures and appliances. District

staff performs inspections to verify compliance with all district regulations during and after construction.

43. If fire sprinklers are required by Coastside Fire Protection District, fire sprinklers shall be served from a separate fire service water connection with a separate fire meter. Please note that Coastside County Water District does not allow passive purge systems to be installed on fire protection services. Fire protection services are authorized for the sole purpose of fire protection, so there shall be no cross connections.

Granada Community Services District (District)

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

RSP:cmc – RSPEE0206_WCU.DOCX

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

San Mateo County

PLN2018-00154 (BONE Structure/Huard)

0.04 0 0.02 0.04 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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1: 1,128

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COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C

C1
Composite Panel
Trespa | Meteon | Loft Brown

T1
Porcelain Tile
Florim | Timeless | Amani Grey

STC1
Stucco
LaHabra | Smooth Plaster Finish

WIN
Window Finish
Kolbe Windows | Corbeau

HUARD RESIDENCE - FINISHES

Half Moon Bay
185 Magellan Avenue

BONE STRUCTURE

08/09/2018

17-887 HUARD - RESIDENCE

DESIGN REVIEW PLANS

ARCHITECTURAL PLANS

A. 000	Title page
A. 002	Compositions
A. 100	Site plan
A. 104	First floor plan
A. 105	Second floor plan
A. 106	Roof plan
A. 107	GFA / FAR Calculations
A. 200	Front & back elevations
A. 201	Left & Right elevations
A. 300	Cross & Longitudinal sections

CIVIL PLANS

C-1	Grading And Drainage.
C-2	Erosion Control.
C-3	Civil Details.
C-4	Construction BMP Checklist.

LANDSCAPE PLANS

LA 1_A	HardScape Plan.
LA 1_B	GreenRoof Plan.
LA 1_C	DriveWay Details.
LA 1_D	Water Feauture And WalkWay.
LA 1_E	Fire Pit And BBQ Counter
LA 2_A	Lighting Plan.
LA 3_A	Planting Plan.
LA 3_B	Planting_GreenRoof Plan.
LA 3_C	LandScape Notes And Details.
LA 3_D	Soil Report And Preparation.
IR_1	Irrigation Plan.
IR_2	Irrigation Notes and Legend.
IR_3	Irrigation Details
IR_4	Irrigation Details and Worksheets
TP_1	Tree Protection Plan

Lot area	
• Total lot area	12 424 sq.ft.

	Permitted (ft/in)	Proposed (ft/in)
• Lot coverage	(30%) 3,727 sq.ft	(22%) 2,849.13 sq.ft

Setbacks		
• Front yard setback	20'-0"	20'-6"
• Side yard setback	10'-0"	11'-0"
• Side yard setback	10'-0"	18'-6"
• Rear yard setback	30'-0"	30'-6"

• Building depth	N/A	-
• Building height	28'-0"	28'-3 1/4"
• Floor space index	N/A	-
• Gross floor area	6200sq.ft	5354.78sq.ft
First floor		2849.13sq.ft
Second floor		2505.65sq.ft

AN AUTOMATED RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13D AND STATE AND LOCAL REQUIREMENTS SHALL BE INSTALLED IN THE SINGLE FAMILY DWELLING UNITS PER CRC R313.2. FIRE SPRINKLER SYSTEM TO BE ADDRESSED IN A DEFERRED SUBMITTAL.

APPLICABLE CODES:

2016 CALIFORNIA BUILDING CODE (CBC)
2016 CALIFORNIA RESIDENTIAL CODE (CRC)
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA MECHANICAL CODE (CMC)
2016 CALIFORNIA PLUMBING CODE (CPC)
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA FIRE CODE (CFC)
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
LOCAL ORDINANCES, CODES, RULES AND REGULATIONS

ARCHITECT INFORMATION

ARCHITECT: BONE STRUCTURE

ADDRESS: 2812, RUE JOSEPH-A. BOMBARDIER, LAVAL (QC) H7P 6E2

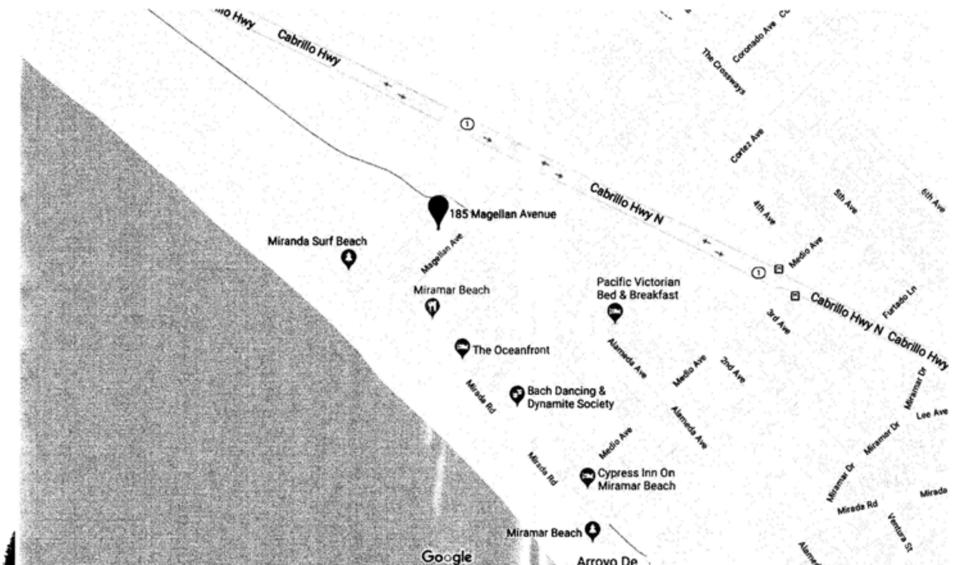
PHONE NUMBER:

TOLL FREE: 1 855 978-2663
DIRECT: 450 978-0602
FAX: 450 978-4917

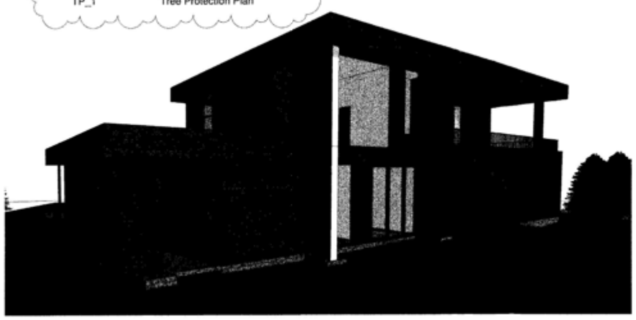
PROJECT ADDRESS: 185 MAGELLAN AVE. MIRAMAR, CA 94019

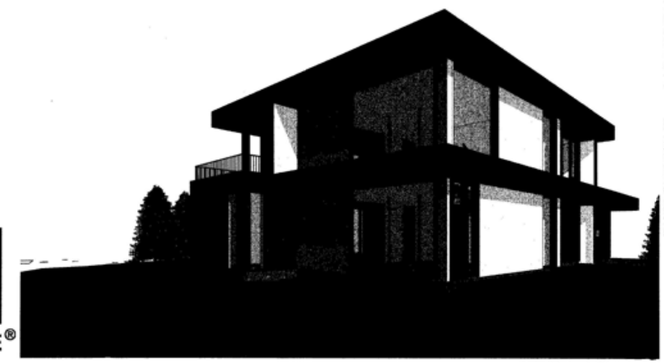
Parcel Report For APN: 048-013-920

Net Lot Size:	12 424 sq.ft		
Zone Dist:	R-1/S94/DR/CD		
Flood Zone:	no		
Historic Status:	no	LOMA:	no
Traffic Imp. Dist.:	no	HMP Request:	no
Max. Lot Coverage:	3,727 sq.ft		
Max Height in Ridge:	28'-0"		
Special Setbacks: N/A			



VICINITY MAP





BONE STRUCTURE®

PLN2018-00154

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JUL 9 2019
San Mateo County Planning Division

THE FOLLOWING PLANS, PROVIDED BY **BONE STRUCTURE**, ARE FOR INFORMATION REGARDING THE CONSTRUCTION OF THE PROJECT BY A LICENSED DEALER. **BONE STRUCTURE** IS THE SUPPLIER OF A STRUCTURAL SYSTEM THAT INCLUDES THE ANCHORS NECESSARY FOR THE EXTERIOR AND INTERIOR FINISHING. ALL OTHER SYSTEMS ARE SHOWN ONLY FOR UNDERSTANDING AND ARE UNDER THE RESPONSIBILITY OF THE BUILDER.

DATE : 2019/07/02

• THESE PLANS ARE NOT FOR CONSTRUCTION.

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F1 GRADE BEAM W/ MAT SLAB

- 18" Grade beam w mat slab
- **ANCHOR INSTALLED WHEN CASTING**
- Waterproofing membrane (Kraze Procor fluid applied waterproofing or equivalent)

W1 HORIZONTAL WOOD SIDING (R25.5)

- Wood siding (Horizontal)
- 1 3/4" Air space
- 3/4" wood furring @ 16" c/c (Vertical)
- **3 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- 2 1/2" Sprayed urethane-based foam
- **3" RIGID INSULATION PANEL, EXPANDED POLYSTYRENE**
- **1" STEEL SUPPORT WITH THERMAL BREAK**
- **4"x 4" GALVANIZED STEEL COLUMN @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING @ 16" c/c HORIZONTALLY**
- 1/2" Gypsum

W2 STUCCO (R25.5)

- Stucco
- 1 3/4" Air space
- 3/4" wood furring @ 16" c/c (Vertical)
- **3 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- 2 1/2" Sprayed urethane-based foam
- **3" RIGID INSULATION PANEL, EXP. POLYSTYRENE**
- **1" STEEL SUPPORT WITH THERMAL BREAK**
- **4"x4" GALVANIZED STEEL COLUMN @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING @ 16" c/c HORIZONTALLY**
- 1/2" Gypsum

W3 STUCCO - BUILD OUT (R25.5)

- Stucco
- 6 7/8" Air space
- 3/4" wood furring @ 16" c/c (Diagonal)
- **5 3/8"" "Z" BARS @ 16" c/c VERTICALLY**
- **3 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- 2 1/2" Sprayed urethane-based foam
- **3" RIGID INSULATION PANEL, EXPANDED POLYSTYRENE**
- **1" STEEL SUPPORT WITH THERMAL BREAK**
- **4"x 4" GALVANIZED STEEL COLUMN @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING @ 16" c/c HORIZONTALLY**
- 1/2" Gypsum

W4 STUCCO - BUILD OUT(Non Insulated) (R25.5)

- Stucco
- 1/2" Gypsum
- 3/4" wood furring @ 16" c/c (Diagonal)
- **5 3/8" "Z" BARS @ 16" c/c VERTICALLY**
- **4 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- 2 1/2" Sprayed urethane-based foam
- **4 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- **5 3/4" "Z" BARS @ 18" c/c VERTICALLY**
- 3/4" wood furring @ 16" c/c (Diagonal)
- **1/4" FURRING ANCHOR**
- 1/2" Gypsum
- 3/4" Stucco

P1 TYPICAL FLOOR

- Floor finish
- **3/4" PLYWOOD**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 1'-8" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

P2 FLOOR - INSULATED

- **Flow finish**
- **3/4" PLYWOOD**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 1'-8" c/c**
- **3" RIGID INSULATION PANEL, EXPANDED POLYSTYRENE**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- **5/8" Gypsum**

P3 SLAB ON GRADE (R10)

- Floor finish
- 4" concrete mat slab
- Vapour barrier
- 2" rigid insulation panel

P4 GARAGE SLAB

4" concrete mat slab
- Vapour barrier
-Subbase per site conditions

R1 TYPICAL ROOF (2% SLOPE) (R50)

- Johns-Manville Dyna-Glas, Dyna-Base membrane systems or equivalent
- 5" Tapered insulation
- **4 1/2" SIP**
- 2" Sprayed urethane based foam
- **"Z" BARS WITH INTEGRATED SLOPE**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

P2 BALCONY

- Terrace finish
- Wood structure with inverse integrated slope
- 1/2" rubber pad
- Johns-Manville Dyna-Glas, Dyna-Base membrane systems or equivalent
- 3/4" Plywood
- **"Z" BARS WITH INTEGRATED SLOPE**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- 3/4" Wood furring
- Exterior finish

R3 CANOPY

- Wood Siding
- 3/4" wood furring @ 16" c/c (Vertical)
- 3/4" Plywood
- **"Z" BARS WITH INTEGRATED SLOPE**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- 3/4" Wood furring
- Exterior finish (Metallic cladding)

* THESE PLANS ARE NOT FOR CONSTRUCTION.

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* NOTE
- THE R VALUES PROVIDED ARE ZONE 4 EFFECTIVE INSULATION VALUES

- UPPERCASE LETTER : INCLUDED
- Lowercase letter : NOT INCLUDED

STUCCO (R29)

HORIZONTAL WOOD SIDING (R29)

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DATE	REVISION	BY	NO.
2018-09-10	Response To Comments	AR	2
2018-04-16	Design Review	AR	1

PROJECT

HUARD - RESIDENCE

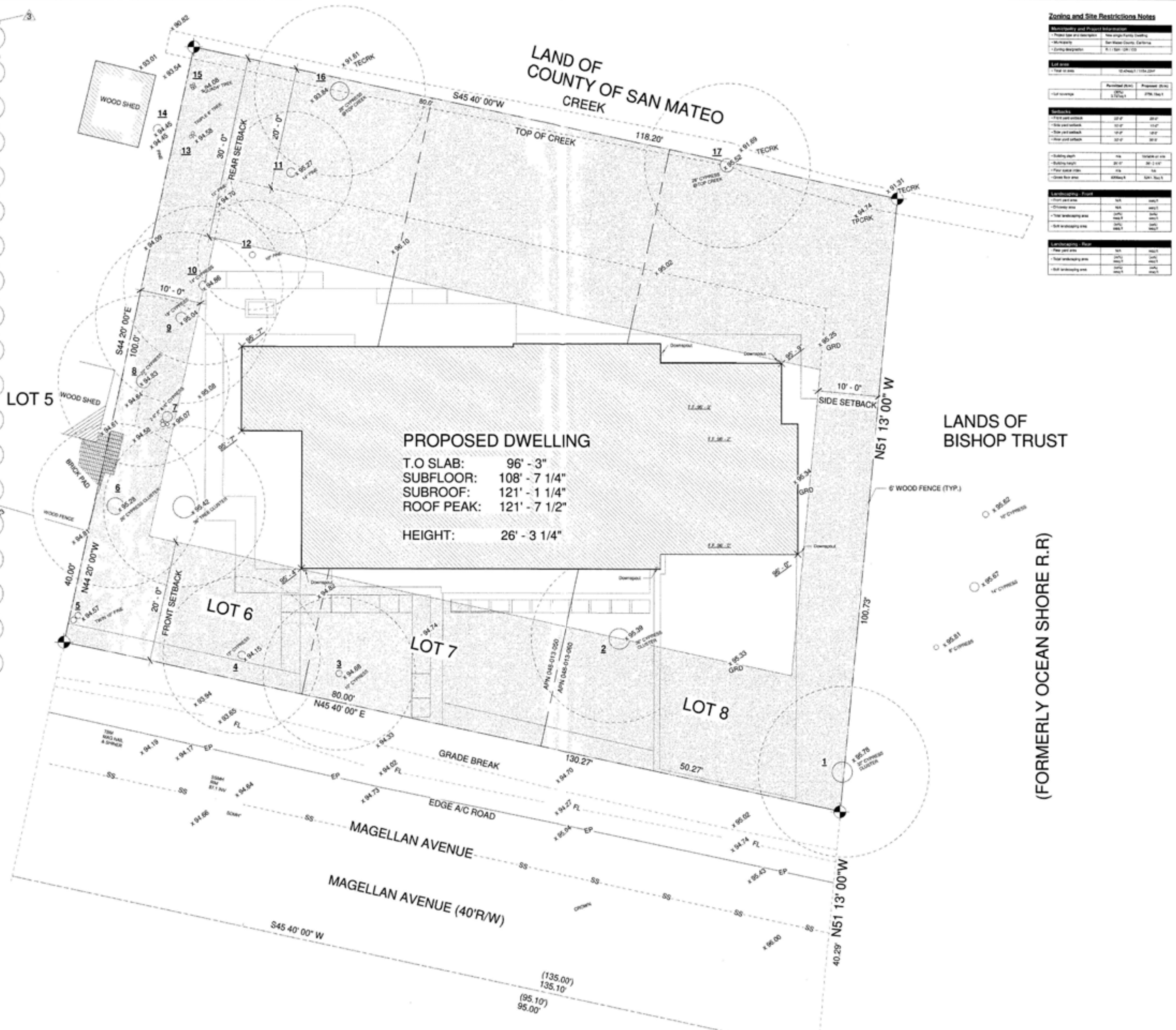
17-887

185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA 94019

DRAWING TITLE: Compositions	DRAWN BY: AR
	CHECK BY: BONE Structure
SCEAU	DATE: 2018/09/10
	SCALE: 1" = 1'-0"
	REVISION: 2
	PAGE: A. 002

Notes:-

- An encroachment permit may be required from the Parks Department for any work performed on the trees.
- Geo-grid will be used to minimize grading for the two trees which is directly in front of the house north and south of the driveway.
- Tree protection zones should be established and maintained throughout the entire length of the project.
- Fencing for the protection zones should be 6 foot tall metal chain link supported by cinder blocks.
- The support poles should be spaced no more than 10 feet apart on center.
- The location for the protection fencing should be as close to the dripline as possible still allowing room for construction to safely continue.
- Signs should be placed on fencing signifying "Tree Protection Zone - Keep Out".
- No materials or equipment should be stored or cleaned inside the tree protection zones.
- Areas outside the fencing but still beneath the dripline of protected trees, where foot traffic is expected to be heavy, should be mulched with 4 to 6 inches of chipper chips.
- No neighboring trees will be affected or have work performed within 4 times the trees' DBH measured at 48 inches above ground level.
- The general contractor is responsible for contacting the Project Arborist in a timely manner to have the Project Arborist review all work performed within the dripline of protected trees.
- No self-propelled equipment may enter the dripline of trees. The Project Arborist is to monitor work within the dripline of trees.
- The Tree Protection Plan is to be included on full size sheets of the construction plans.
- 6 inches of mulch will be laid down and covered with steel plates or 1 inch thick plywood during the construction period.
- The excavation of any driveway within the root zone (10xDBH) of a protected tree to be covered with Geo-Grid fabric with compatible base-rock.
- Paving material should be porous.
- The Project Arborist will be on site for the excavation and to document the use of geo-grid fabric.
- Trenching for irrigation, electrical, drainage or any other reason should be dug with care when beneath the driplines of protected trees. Carefully laying pipes below or beside protected roots will dramatically reduce root loss of desired trees thus reducing trauma to the entire tree. Trenches should be backfilled as soon as possible with native material and compacted to near its original level. Trenches that must be left exposed for a period of time should also be covered with layers of burlap or straw wattle and kept moist. Plywood over the top of the trench will also help protect exposed roots below. All work within the dripline of protected trees is to be done with care.
- Normal, natural, irrigation should be maintained throughout the entire length of the project. Some irrigation may be required during the dry months depending on the seasonal rainfall. However, all living trees are naturally occurring and thriving with no previous human intervention. Mulching the root zone of protected trees will help the soil retain moisture, thus reducing water consumption. The Project Arborist is to determine the irrigation schedule for protected trees. The general contractor is expected to apply supplemental water at the direction of the Project Arborist.
- Prior to the commencement of construction operations, clearance pruning of protected trees is to be properly completed. All trimming will be carried out within ANSI standards and Best Management Practices. The Project Arborist will supervise any tree trimming on site. Ornamental trimming will be done during the landscape phase of the project. The Project Arborist will inspect all trimming. All tree trimming will adhere to ANSI 300 standards and Best Management Practices and City of San Mateo ordinances.
- Prior to the commencement of demolition or construction operations,all appropriate tree protection measures are to be properly implemented and inspected by the Project Arborist. Prior to the issuance of demolition permits, the Project Arborist is to submit a letter by fax or email to the city planner assigned to this project verifying that all tree protection measures are properly implemented and clearance pruning of the trees has been completed. Monthly inspections by the Project Arborist are required for a site such as this.
- The Project Arborist will inspect the tree protection measures and tree trimming prior to the start of construction. The Project Arborist will conduct inspections of the site as required by the city of San Mateo. Inspections will include an inspection letter provided for the owner, contractor and city arborist. The information included in this report is believed to be true and based on sound arboricultural principles and practices.



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

Zoning and Site Restrictions Notes

Municipality and Project Information	
• Project type and description	New single Family Dwelling
• Municipality	San Mateo County, California
• Zoning designation	[illegible]

Lot area	
• Total lot area	[illegible]

	Permitted	Proposed
• Lot coverage	[illegible]	[illegible]

Setbacks		
• Front yard setback	20'-0"	20'-0"
• Side yard setback	10'-0"	11'-0"
• Side yard setback	10'-0"	10'-0"
• Rear yard setback	20'-0"	30'-0"

• Building depth	n/a	Variable on site
• Building height	28'-0"	26'-3 1/4"
• Floor area ratio	n/a	n/a
• Gross floor area	[illegible]	[illegible]

Landscaping - Front		
• Front yard area	N/A	[illegible]
• Driveway area	N/A	[illegible]
• Total landscaping area	[illegible]	[illegible]
• Soft landscaping area	[illegible]	[illegible]

Landscaping - Rear		
• Rear yard area	N/A	[illegible]
• Total landscaping area	[illegible]	[illegible]
• Soft landscaping area	[illegible]	[illegible]

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DATE	REVISION	BY	NO.
2019-07-02	Response To Com	M.K.	3
2018-09-10	Response To Comments	AR	2
2018-04-06	Design Review	AR	1

PROJECT

HUARD - RESIDENCE

17-887

185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE	DRAWN BY
Site plan	AR
	CHECK BY: BONE Structure
SCEAU	DATE: 2019/07/02
	SCALE: As indicated
	REVISION: 3
	PAGE: A. 100

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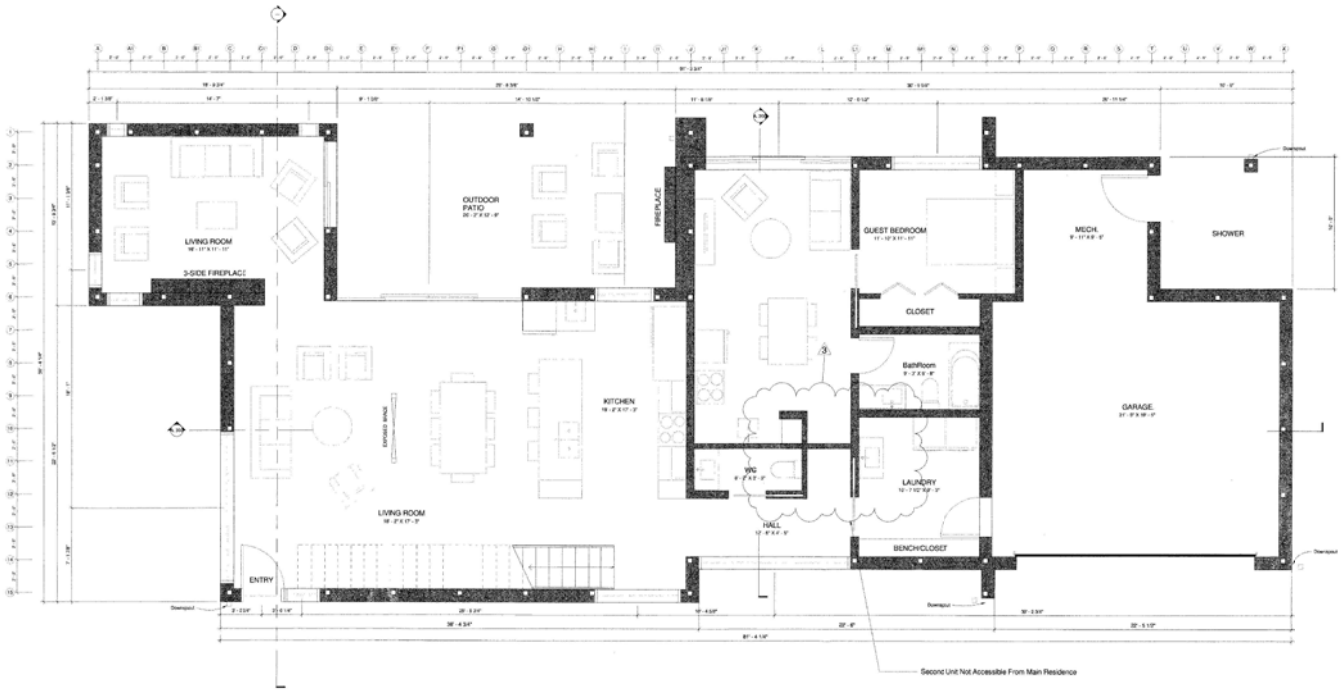

1 Main Floor Plan
1/4" = 1'-0"

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SYMBOLS LEGEND & NOTES

- FLOOR DRAIN
- HARD-WIRED IONIC SMOKE ALARM AND CARBON MONOXIDE DETECTOR. INTERCONNECTED (per 9.10.19.5) WITH BATTERY BACKUP (per 9.10.19.4)
- (T) TEMPERED OR LAMINATED SAFETY GLASS, CONFORM TO CAN/CBSB-12.1-M per 9.6.1.4
- (E) UNOBSTRACTED OPENING OF NOT LESS THAN 0.35 m² IN AREA WITH NO DIMENSION LESS THAN 380mm.
- (F) FAN
- EXTERIOR LIGHTING OUTLET WITH INTERIOR SWITCH PER 9.34.2.1
- LIGHTING OUTLET WITH 3-WAYS WALL SWITCH PER 9.34.2.3
- (G) MIN. 1070 MM HIGH GUARDRAIL DESIGNED TO WITHSTAND THE SPECIFIED LATERAL LOADS PER 4.1.5.1.4
- BR BRACING TAG

(W1) HORIZONTAL WOOD SIDING
(W2) STUCCO
(W3) STUCCO BUILT OUT

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DATE	REVISION	BY	NO.
2019-07-02	Response To Dpcr	BCK	3
2019-06-10	Response To Comments	AR	2
2019-04-26	Design Review	AR	1

PROJECT
HUARD - RESIDENCE
17-887
185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE
First floor plan

DRAWN BY: AR
CHECK BY: BONE Structure
SCEAU
DATE: 2019/07/02
SCALE: As indicated
REVISION: 3
PAGE: A. 104

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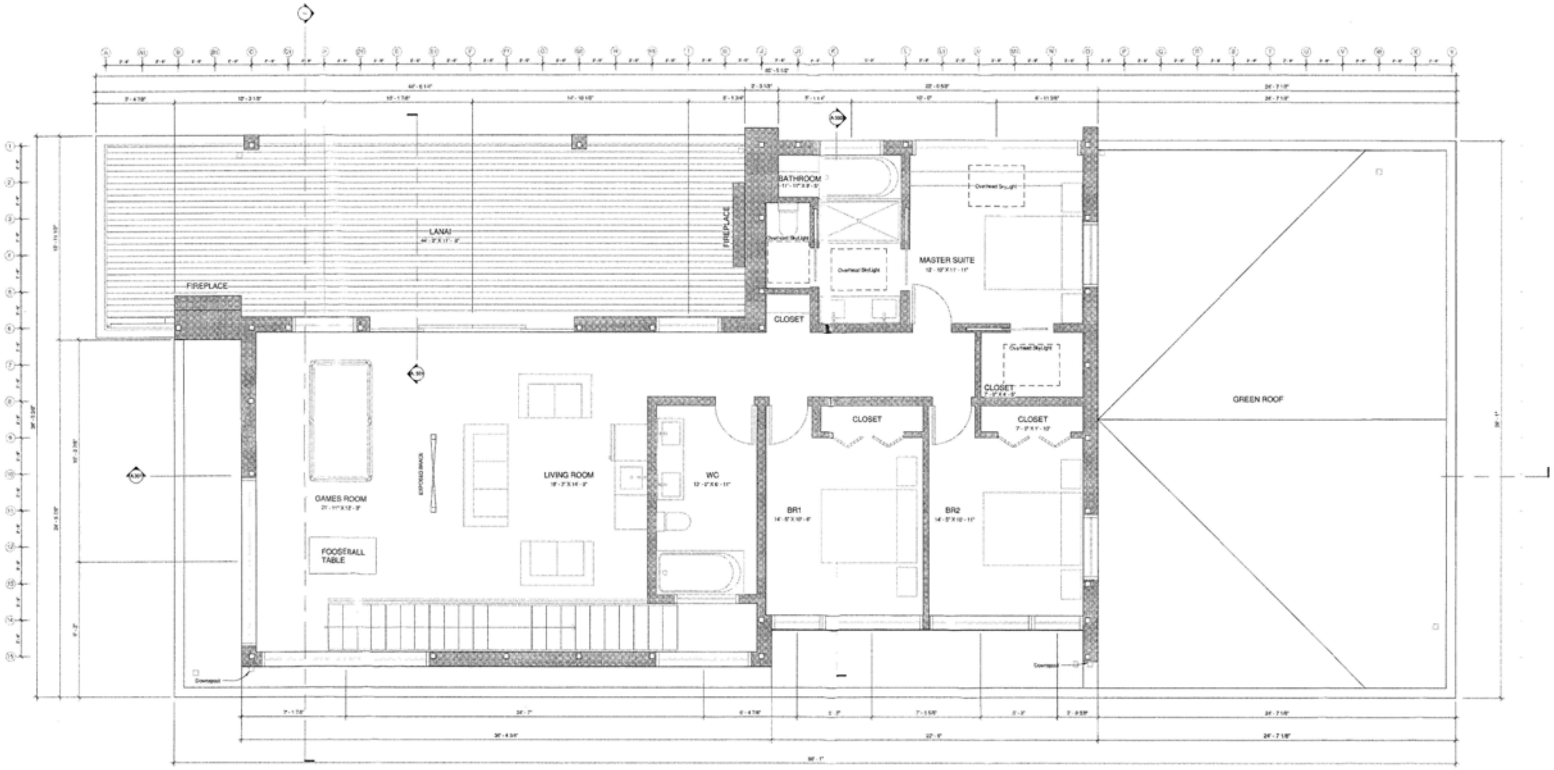

(1) First Floor Plan
1/4" = 1'-0"

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SYMBOLS LEGEND & NOTES

- FLOOR DRAIN
- HARD-WIRED IONIC SMOKE ALARM AND CARBON MONOXIDE DETECTOR, INTERCONNECTED (per 9.10.19.5) WITH BATTERY BACKUP (per 9.10.19.4)
- TEMPERED OR LAMINATED SAFETY GLASS, CONFORM TO CAN/CBSB-12.1-M per 9.6.1.4
- UNOBSTRUCTED OPENING OF NOT LESS THAN 0.35 m² IN AREA WITH NO DIMENSION LESS THAN 380mm.
- FAN
- EXTERIOR LIGHTING OUTLET WITH INTERIOR SWITCH PER 9.34.2.1
- LIGHTING OUTLET WITH 3-WAYS WALL SWITCH PER 9.34.2.3
- MIN. 1070 MM HIGH GUARDRAIL DESIGNED TO WITHSTAND THE SPECIFIED LATERAL LOADS PER 4.1.5.14
- BR BRACING TAG

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DATE	REVISION	BY	NO.
2018-09-10	Response To Comments	AR	2
2018-04-09	Design Review	AR	1

PROJECT

HUARD - RESIDENCE
17-887
185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE: First floor plan	DRAWN BY: AR
	CHECK BY: BONE Structure
SCEAU	DATE: 2018/09/10
	SCALE: As indicated
	REVISION: 2
	PAGE: A. 105

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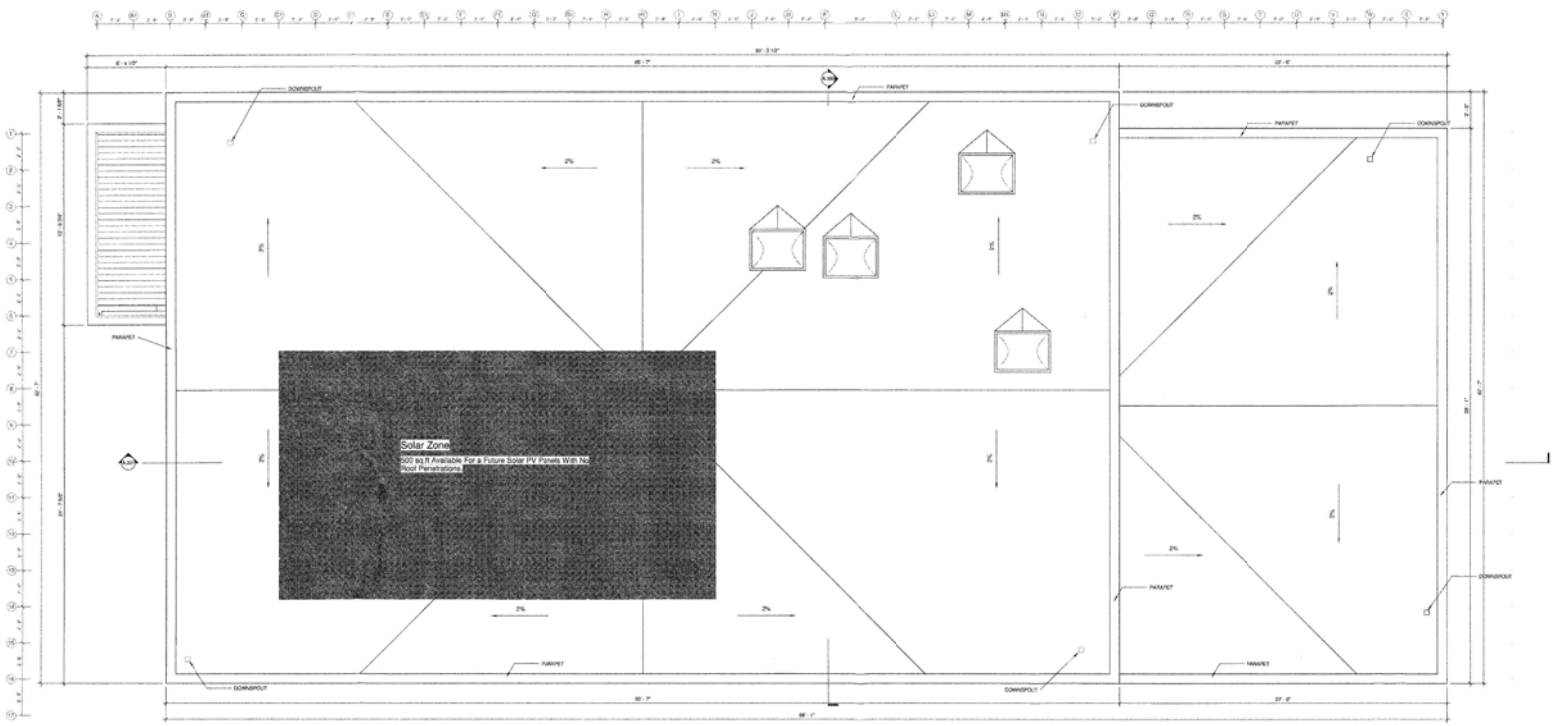

3 Roof Plan
1/4" = 1'-0"

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DATE	REVISION	BY	NO.
2018-09-10	Response To Comments	AR	2
2018-04-25	Design Review	AR	1

PROJECT
HUARD - RESIDENCE
17-887
185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE: Roof plan	DRAWN BY: A.R
	CHECK BY: A.A
SCEAU	DATE: 2018/09/10
	SCALE: 1/4" = 1'-0"
	REVISION: 2
	PAGE: A. 106

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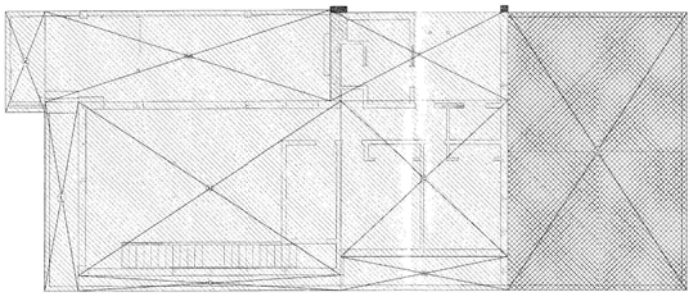
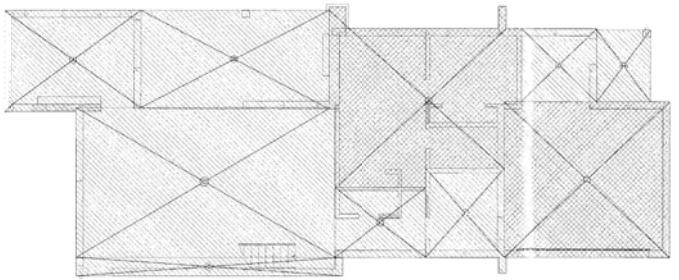


Second Floor Plan - GFA



First Floor Plan - GFA

LOT COVERAGE CALCULATION	
A = 18' - 9 3/4" X 13' - 9 3/4"	255.93 sq.ft.
B = 25' - 8 3/8" X 13' - 3 7/8"	342.37 sq.ft.
C = 35' - 4 3/4" X 20' - 5 7/8"	725.25 sq.ft.
D = 36' - 4 3/4" X 2' - 6 1/2"	92.51 sq.ft.
E = 12' - 6" X 9' - 6 1/2"	119.27 sq.ft.
F = 12' - 2 1/4" X 10' - 9 1/4"	133.51 sq.ft.
G = 10' - 4 1/4" X 10' - 0"	103.55 sq.ft.
H =9' - 10 1/8" X 7' - 4 1/8"	72.29 sq.ft.
I = 26' - 5 3/8" X 21' - 9 3/4"	520.92 sq.ft.
J = 22' - 8 1/4" X 21' - 3 3/4"	483.53 sq.ft.
K = 13' - 9 3/4" X 5' - 4 7/8"	74.67 sq.ft.
L = 25' - 11 7/8" X 4' - 7 1/8"	118.58 sq.ft.
M = 39' - 1 3/8" X 12' - 5 1/2"	487.30 sq.ft.
N = 36' - 0" X 23' - 10 3/4"	860.25 sq.ft.
O = 36' - 0" X 2' - 1 1/8"	75.38 sq.ft.
P = 24' - 4 1/8" X 12' - 1 1/8"	294.41 sq.ft.
Q = 22' - 10 3/4" X 21' - 4 3/4"	489.88 sq.ft.
R = 22' - 10 3/4" X 4' - 7 1/8"	105.18 sq.ft.
S = 38' - 1" X 24' - 7 1/8"	936.61 sq.ft.

3

Secound Unit square footage

TOTAL GFA = **5354.78 sq.ft**

FAR = **0.43**

FIRST FLOOR GFA:

A+B+C+D+E+F+G+H

255.93+342.37+725.25+92.51+119.27+133.51+103.55+72.29 = **1844.68 sq.ft**

ADU+GARAGE GFA:

I+J

520.92+483.53 = **1004.45 sq.ft**

SECOND FLOOR GFA:

K+L+M+N+O+P+Q+R

74.67+118.58+487.30+860.25+75.38+294.41+489.88+105.18 = **2505.65 sq.ft**

LOT COVERAGE CALCULATION

= A + B + C + D + E + F + G + H+I+J

= 255.93+342.37+725.25+92.51+119.27+133.51+103.55+ 72.29+520.92+483.53 = **2849.13 sq.ft**

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DATE	REVISION	BY	NO.
2019-07-02	Response To Com	M.K.	3
2019-06-12	Response To Comments	AR	2
2019-04-09	Design Review	AR	1

PROJECT

HUARD - RESIDENCE

17-887

185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE: GFA / FAR Calculations

SCEAU

DRAWN BY: AR

CHECK BY: BONE Structure

DATE: 2019/07/02

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

REVISION: 3

PAGE: A. 107

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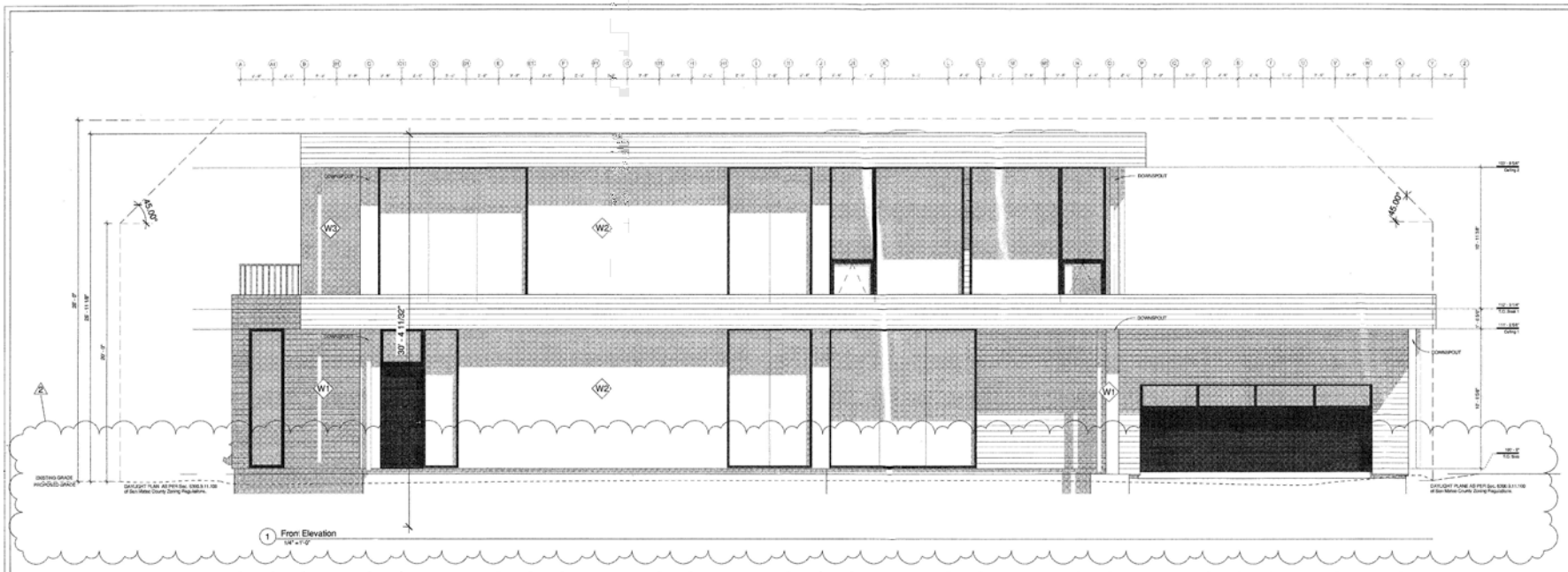
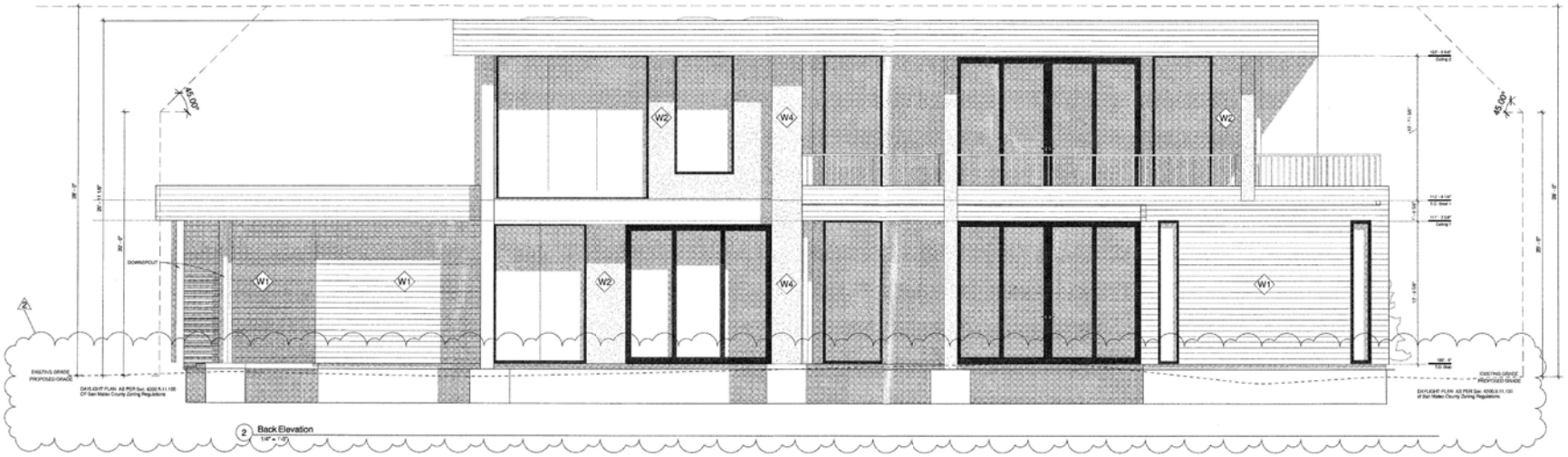


1 Front Elevation
1/4" = 1'-0"



2 Back Elevation
1/4" = 1'-0"

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XXXX'-X" EXISTING GRADE

XXXX'-X" PROPOSED GRADE

ROOF	Membrane
FASCIA	Wood Siding
SOFFIT	Wood Siding

W1 HORIZONTAL WOOD SIDING
W2 STUCCO
W3 STUCCO (BUILT OUT)

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DATE	REVISION	BY	NO.
2018-09-10	Response To Comments	AR	2
2018-04-06	Design Review	AR	1

PROJECT
HUARD - RESIDENCE
17-687
185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE
Front & back elevations

SCEAU

DRAWN BY A.R
CHECK BY A.A
DATE 2018/09/10
SCALE As indicated
REVISION 2
PAGE A. 200

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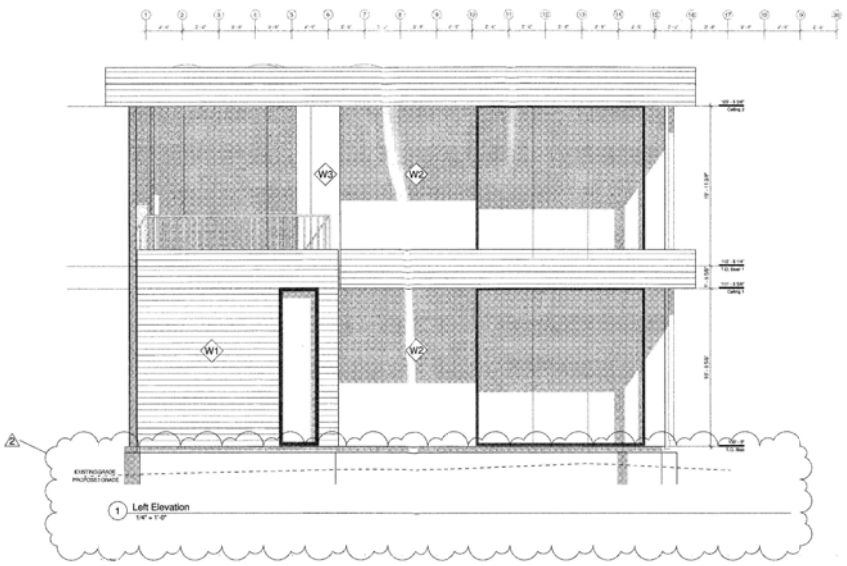

1 Left Elevation
1/4" = 1'-0"

2 Right Elevation
1/4" = 1'-0"

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BONE STRUCTURE®

XXXX-X" EXISTING GRADE

XXXX-X" PROPOSED GRADE

ROOF	Membrano
FASCIA	Wood Siding
SOFFIT	Wood Siding

W1 HORIZONTAL WOOD SIDING
W2 STUCCO
W3 STUCCO (INLT CUT)

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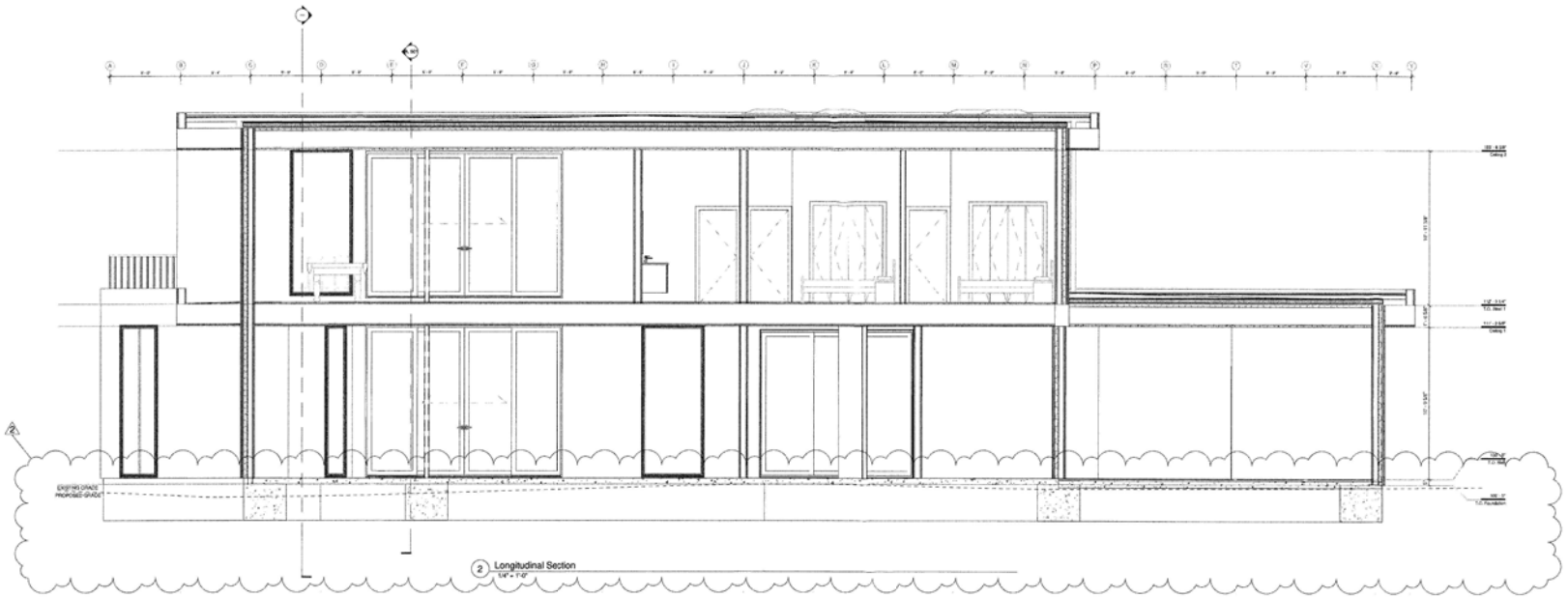
DATE	REVISION	BY	NO.
2018-09-10	Reponses To Commentai	AR	2
2018-04-04	Design Review	AR	1

PROJECT
HUARD - RESIDENCE
17-867
185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

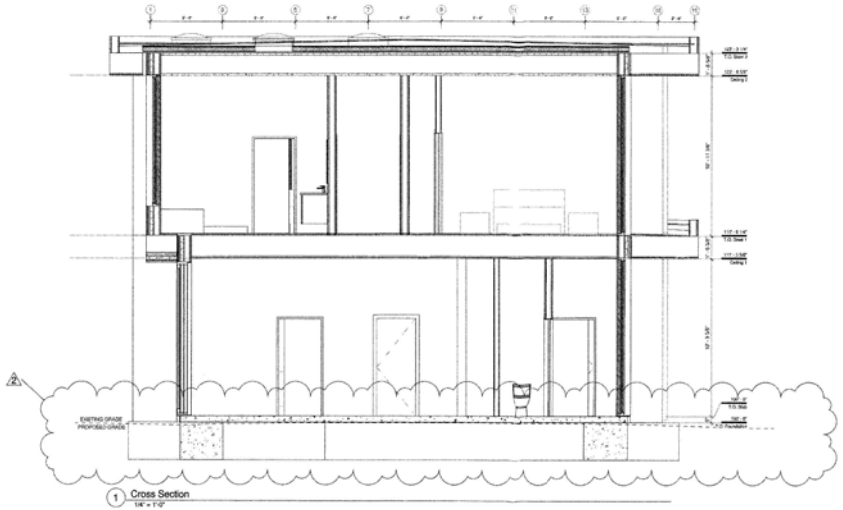
DRAWING TITLE
Left & Right elevations

SCEAU

DRAWN BY: A.R
CHECK BY: A.A
DATE: 2018/09/10
SCALE: As indicated
REVISION: 2
PAGE: A. 201



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



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

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2812 JOSEPH-A. BOMBARDIER, LAVAL, QC. CA H7P 6E2
T.:450.978.0602 FAX:450.978.4917

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DATE	REVISION	BY	NO.
2018-08-10	Response To Comments	AR	2
2018-04-06	Design Review	AR	1

PROJECT
HUARD - RESIDENCE
17-887
185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE	DRAWN BY
Cross & Longitudinal sections	A.R
	CHECK BY A.A
SCEAU	DATE 2018/09/10
	SCALE 1/4" = 1'-0"
	REVISION 2
	PAGE A. 300

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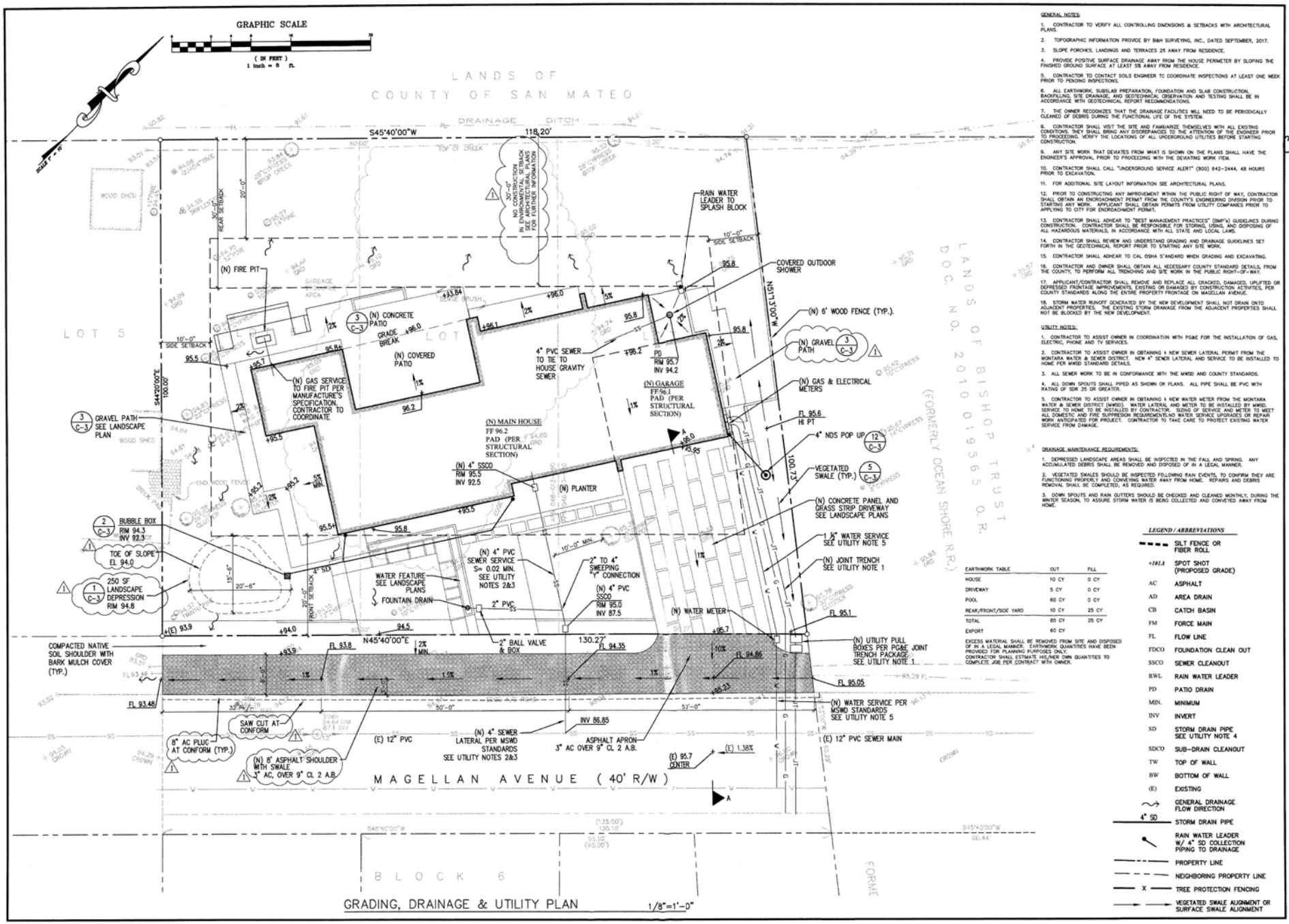


GRADING, DRAINAGE & UTILITY PLAN 1/8"=1'-0"

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL CONTROLLING DIMENSIONS & SETBACKS WITH ARCHITECTURAL PLANS.
2. TOPOGRAPHIC INFORMATION PROVIDE BY B&H SURVEYING, INC., DATED SEPTEMBER, 2017.
3. SLOPE PORCHES, LANDINGS AND TERRACES 2% AWAY FROM RESIDENCE.
4. PROVIDE POSITIVE SURFACE DRAINAGE AWAY FROM THE HOUSE PERIMETER BY SLOPING THE FINISHED GROUND SURFACE AT LEAST 5% AWAY FROM RESIDENCE.
5. CONTRACTOR TO CONTACT SOILS ENGINEER TO COORDINATE INSPECTIONS AT LEAST ONE WEEK PRIOR TO PENDING INSPECTIONS.
6. ALL EARTHWORK, SUBSLAB PREPARATION, FOUNDATION AND SLAB CONSTRUCTION, BACKFILLING, SITE DRAINAGE, AND GEOTECHNICAL OBSERVATION AND TESTING SHALL BE IN ACCORDANCE WITH GEOTECHNICAL REPORT RECOMMENDATIONS.
7. THE OWNER RECOGNIZES THAT THE DRAINAGE FACILITIES WILL NEED TO BE PERIODICALLY CLEANED OF DEBRIS DURING THE FUNCTIONAL LIFE OF THE SYSTEM.
8. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS. THEY SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING. VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES BEFORE STARTING CONSTRUCTION.
9. ANY SITE WORK THAT DEVIATES FROM WHAT IS SHOWN ON THE PLANS SHALL HAVE THE ENGINEER'S APPROVAL PRIOR TO PROCEEDING WITH THE DEVIATING WORK ITEM.
10. CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" (800) 642-2444, 48 HOURS PRIOR TO EXCAVATION.
11. FOR ADDITIONAL SITE LAYOUT INFORMATION SEE ARCHITECTURAL PLANS.
12. PRIOR TO CONSTRUCTING ANY IMPROVEMENT WITHIN THE PUBLIC RIGHT OF WAY, CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE COUNTY'S ENGINEERING DIVISION PRIOR TO STARTING ANY WORK. APPLICANT SHALL OBTAIN PERMITS FROM UTILITY COMPANIES PRIOR TO APPLYING TO CITY FOR ENCROACHMENT PERMIT.
13. CONTRACTOR SHALL ADHEAR TO "BEST MANAGEMENT PRACTICES" (BMP's) GUIDELINES DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR STORING, USING, AND DISPOSING OF ALL HAZARDOUS MATERIALS, IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.
14. CONTRACTOR SHALL REVIEW AND UNDERSTAND GRADING AND DRAINAGE GUIDELINES SET FORTH IN THE GEOTECHNICAL REPORT PRIOR TO STARTING ANY SITE WORK.
15. CONTRACTOR SHALL ADHEAR TO CAL OSHA S'ANDARD WHEN GRADING AND EXCAVATING.
16. CONTRACTOR AND OWNER SHALL OBTAIN ALL NECESSARY COUNTY STANDARD DETAILS FROM THE COUNTY, TO PERFORM ALL TRENCHING AND SITE WORK IN THE PUBLIC RIGHT-OF-WAY.
17. APPLICANT/CONTRACTOR SHALL REMOVE AND REPLACE ALL CRACKED, DAMAGED, UPLIFTED OR DEPRESSED FRONTAGE IMPROVEMENTS, EXISTING OR DAMAGED BY CONSTRUCTION ACTIVITIES, PER COUNTY STANDARDS ALONG THE ENTIRE PROPERTY FRONTAGE ON MAGELLAN AVENUE.
18. STORM WATER RUNOFF GENERATED BY THE NEW DEVELOPMENT SHALL NOT DRAIN ONTO ADJACENT PROPERTIES. THE EXISTING STORM DRAINAGE FROM THE ADJACENT PROPERTIES SHALL NOT BE BLOCKED BY THE NEW DEVELOPMENT.

UTILITY NOTES:

1. CONTRACTOR TO ASSIST OWNER IN COORDINATION WITH PG&E FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE AND TV SERVICES.
2. CONTRACTOR TO ASSIST OWNER IN OBTAINING A NEW SEWER LATERAL PERMIT FROM THE MONTARA WATER & SEWER DISTRICT. NEW 4" SEWER LATERAL AND SERVICE TO BE INSTALLED TO HOME PER MWSD STANDARD DETAILS.
3. ALL SEWER WORK TO BE IN CONFORMANCE WITH THE MWSD AND COUNTY STANDARDS.
4. ALL DOWN SPOUTS SHALL PIPED AS SHOWN OR PLANS. ALL PIPE SHALL BE PVC WITH RATING OF SDR 35 OR GREATER.
5. CONTRACTOR TO ASSIST OWNER IN OBTAINING A NEW WATER METER FROM THE MONTARA WATER & SEWER DISTRICT (MWSD). WATER LATERAL AND METER TO BE INSTALLED BY MWSD. SERVICE TO HOME TO BE INSTALLED BY CONTRACTOR. SIZING OF SERVICE AND METER TO MEET ALL DOMESTIC AND FIRE SUPPRESION REQUIREMENTS.NO WATER SERVICE UPGRADES OR REPAIR WORK ANTICIPATED FOR PROJECT. CONTRACTOR TO TAKE CARE TO PROTECT EXISTING WATER SERVICE FROM DAMAGE.

DRAINAGE MAINTENANCE REQUIREMENTS:

1. DEPRESSED LANDSCAPE AREAS SHALL BE INSPECTED IN THE FALL AND SPRING. ANY ACCUMULATED DEBRIS SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.
2. VEGETATED SWALES SHOULD BE INSPECTED FOLLOWING RAIN EVENTS, TO CONFIRM THEY ARE FUNCTIONING PROPERLY AND CONVEYING WATER AWAY FROM HOME. REPAIRS AND DEBRIS REMOVAL SHALL BE COMPLETED, AS REQUIRED.
3. DOWN SPOUTS AND RAIN GUTTERS SHOULD BE CHECKED AND CLEANED MONTHLY, DURING THE WINTER SEASON, TO ASSURE STORM WATER IS BEING COLLECTED AND CONVEYED AWAY FROM HOME.

EARTHWORK TABLE	CUT	FILL
HOUSE	10 CY	0 CY
DRIVEWAY	5 CY	0 CY
POOL	60 CY	0 CY
REAR/FRONT/SIDE YARD	10 CY	25 CY
TOTAL	85 CY	25 CY
EXPORT	60 CY	

EXCESS MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER. EARTHWORK QUANTITIES HAVE BEEN PROVIDED FOR PLANNING PURPOSES ONLY. CONTRACTOR SHALL ESTIMATE HIS/HER OWN QUANTITIES TO COMPLETE JOB PER CONTRACT WITH OWNER.

LEGEND / ABBREVIATIONS

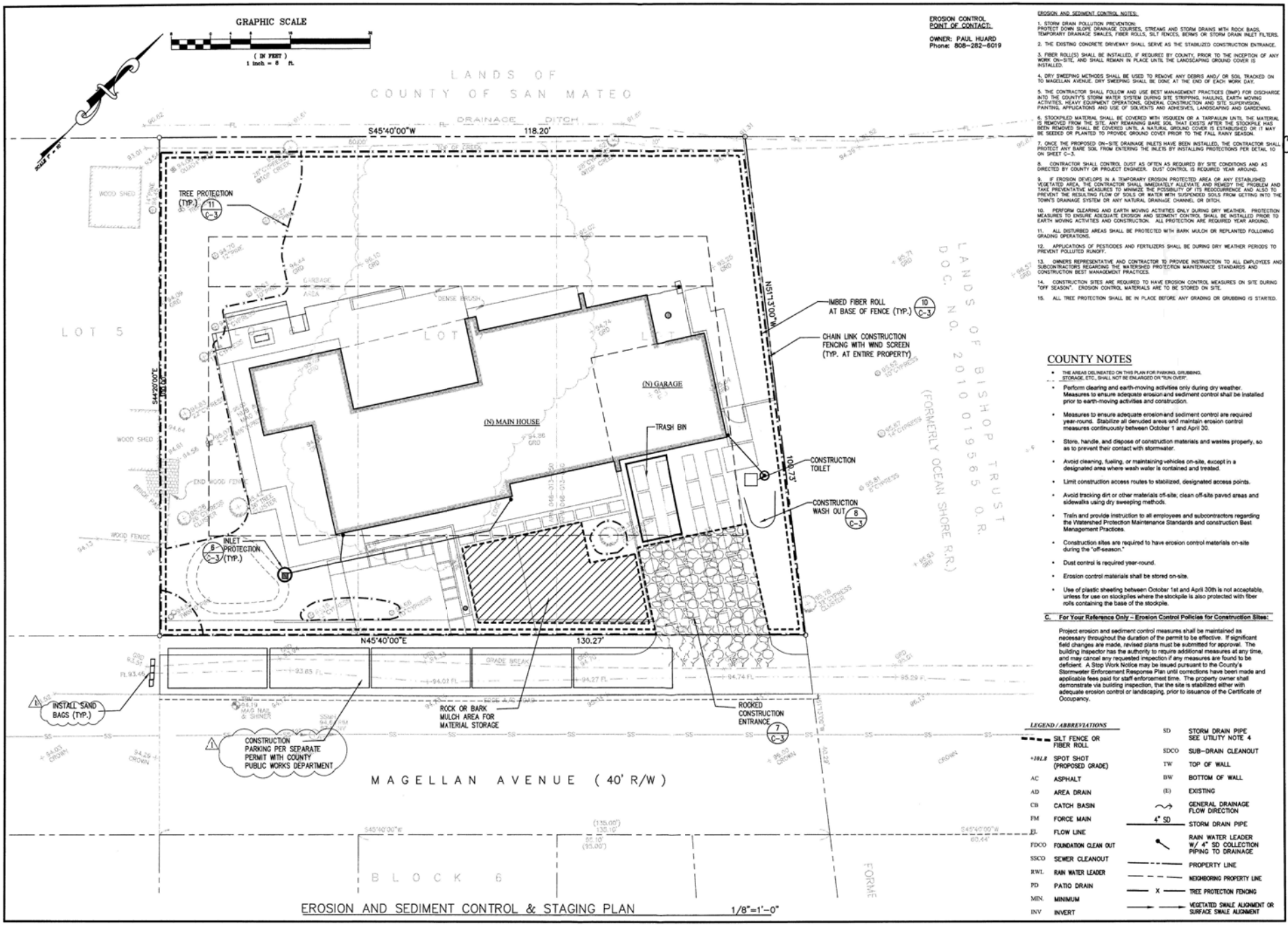
- SILT FENCE OR FIBER ROLL
- +101.1 SPOT SHOT (PROPOSED GRADE)
- AC ASPHALT
- AD AREA DRAIN
- CB CATCH BASIN
- FM FORCE MAIN
- FL FLOW LINE
- FDCO FOUNDATION CLEAN OUT
- SSCO SEWER CLEANOUT
- RWL RAIN WATER LEADER
- PD PATIO DRAIN
- MIN. MINIMUM
- INV INVERT
- SD STORM DRAIN PIPE SEE UTILITY NOTE 4
- SDCO SUB-DRAIN CLEANOUT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- (E) EXISTING
- GENERAL DRAINAGE FLOW DIRECTION
- 4" SD STORM DRAIN PIPE
- RAIN WATER LEADER W/ 4" SD COLLECTION PIPING TO DRAINAGE
- PROPERTY LINE
- NEIGHBORING PROPERTY LINE
- X TREE PROTECTION FENCING
- VEGETATED SWALE ALIGNMENT OR SURFACE SWALE ALIGNMENT

CLIFFORD BECHTEL AND ASSOCIATES
CLIFFORD BECHTEL, PE
901 WALTHAM STREET
BELMONT, CA 94002
650-333-0103
650-637-1059 (FAX)

HUARD RESIDENCE
MAGELLAN AVENUE
SAN MATEO COUNTY
California
Miramar

CONTENTS:
GRADING, DRAINAGE & UTILITY PLAN

DATE 04/05/18
SCALE AS NOTED
REVISIONS:
1 REV. 08/27/18
DRAWN J.G.
CHECKED C.B.
JOB No. 2018608
SHEET NO. C-1
OF 4 SHEETS



EROSION AND SEDIMENT CONTROL & STAGING PLAN 1/8"=1'-0"

EROSION CONTROL POINT OF CONTACT:

OWNER: PAUL HUARD
Phone: 808-282-6019

EROSION AND SEDIMENT CONTROL NOTES:

1. STORM DRAIN POLLUTION PREVENTION:
PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK BAGS, TEMPORARY DRAINAGE SWALES, FIBER ROLLS, SILT FENCES, BERMS OR STORM DRAIN INLET FILTERS.

2. THE EXISTING CONCRETE DRIVEWAY SHALL SERVE AS THE STABILIZED CONSTRUCTION ENTRANCE.

3. FIBER ROLL(S) SHALL BE INSTALLED, IF REQUIRED BY COUNTY, PRIOR TO THE INCEPTION OF ANY WORK ON-SITE, AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED.

4. DRY SWEEPING METHODS SHALL BE USED TO REMOVE ANY DEBRIS AND/ OR SOIL TRACKED ON TO MAGELLAN AVENUE. DRY SWEEPING SHALL BE DONE AT THE END OF EACH WORK DAY.

5. THE CONTRACTOR SHALL FOLLOW AND USE BEST MANAGEMENT PRACTICES (BMP) FOR DISCHARGE INTO THE COUNTY'S STORM WATER SYSTEM DURING SITE STRIPPING, HAULING, EARTH MOVING ACTIVITIES, HEAVY EQUIPMENT OPERATIONS, GENERAL CONSTRUCTION AND SITE SUPERVISION, PAINTING, APPLICATIONS AND USE OF SOLVENTS AND ADHESIVES, LANDSCAPING AND GARDENING.

6. STOCKPILED MATERIAL SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT MAY BE SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.

7. ONCE THE PROPOSED ON-SITE DRAINAGE INLETS HAVE BEEN INSTALLED, THE CONTRACTOR SHALL PROTECT ANY BARE SOIL FROM ENTERING THE INLETS BY INSTALLING PROTECTIONS PER DETAIL 10 ON SHEET C-3.

8. CONTRACTOR SHALL CONTROL DUST AS OFTEN AS REQUIRED BY SITE CONDITIONS AND AS DIRECTED BY COUNTY OR PROJECT ENGINEER. DUST CONTROL IS REQUIRED YEAR AROUND.

9. IF EROSION DEVELOPS IN A TEMPORARY EROSION PROTECTED AREA OR ANY ESTABLISHED VEGETATED AREA, THE CONTRACTOR SHALL IMMEDIATELY ALLEVIATE AND REMEDY THE PROBLEM AND TAKE PREVENTATIVE MEASURES TO MINIMIZE THE POSSIBILITY OF ITS REOCCURRENCE AND ALSO TO PREVENT THE RESULTING FLOW OF SOILS OR WATER WITH SUSPENDED SOILS FROM GETTING INTO THE TOWN'S DRAINAGE SYSTEM OR ANY NATURAL DRAINAGE CHANNEL, OR DITCH.

10. PERFORM CLEARING AND EARTH MOVING ACTIVITIES ONLY DURING DRY WEATHER. PROTECTION MEASURES TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO EARTH MOVING ACTIVITIES AND CONSTRUCTION. ALL PROTECTION ARE REQUIRED YEAR AROUND.

11. ALL DISTURBED AREAS SHALL BE PROTECTED WITH BARK MULCH OR REPLANTED FOLLOWING GRADING OPERATIONS.

12. APPLICATIONS OF PESTICIDES AND FERTILIZERS SHALL BE DURING DRY WEATHER PERIODS TO PREVENT POLLUTED RUNOFF.

13. OWNERS REPRESENTATIVE AND CONTRACTOR TO PROVIDE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE WATERSHED PROTECTION MAINTENANCE STANDARDS AND CONSTRUCTION BEST MANAGEMENT PRACTICES.

14. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MEASURES ON SITE DURING "OFF SEASON". EROSION CONTROL MATERIALS ARE TO BE STORED ON SITE.

15. ALL TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING OR GRUBBING IS STARTED.

COUNTY NOTES

- THE AREAS DELINEATED ON THIS PLAN FOR PARKING, GRUBBING, STORAGE, ETC., SHALL NOT BE ENLARGED OR "RUN OVER".
- 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.
- 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.
- Avoid cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
- 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.
- Construction sites are required to have erosion control materials on-site during the "off-season."
- Dust control is required year-round.
- Erosion control materials shall be stored on-site.
- Use of plastic sheeting between October 1st and April 30th is not acceptable, unless for use on stockpiles where the stockpile is also protected with fiber rolls containing the base of the stockpile.

C. For Your Reference Only – Erosion Control Policies for Construction Sites:

Project erosion and sediment control measures shall be maintained as necessary throughout the duration of the permit to be effective. If significant field changes are made, revised plans must be submitted for approval. The building inspector has the authority to require additional measures at any time, and may cancel any requested inspection if any measures are found to be deficient. A Stop Work Notice may be issued pursuant to the County's Stormwater Enforcement Response Plan until corrections have been made and applicable fees paid for staff enforcement time. The property owner shall demonstrate via building inspection, that the site is stabilized either with adequate erosion control or landscaping, prior to issuance of the Certificate of Occupancy.

LEGEND / ABBREVIATIONS

	SILT FENCE OR FIBER ROLL	SD	STORM DRAIN PIPE SEE UTILITY NOTE 4
+10.8	SPOT SHOT (PROPOSED GRADE)	SDCO	SUB-DRAIN CLEANOUT
AC	ASPHALT	TW	TOP OF WALL
AD	AREA DRAIN	BW	BOTTOM OF WALL
CB	CATCH BASIN	(E)	EXISTING
FM	FORCE MAIN		GENERAL DRAINAGE FLOW DIRECTION
FL	FLOW LINE	4" SD	STORM DRAIN PIPE
FDCO	FOUNDATION CLEAN OUT		RAIN WATER LEADER W/ 4" SD COLLECTION PIPING TO DRAINAGE
SSCO	SEWER CLEANOUT		PROPERTY LINE
RWL	RAIN WATER LEADER		NEIGHBORING PROPERTY LINE
PD	PATIO DRAIN	X	TREE PROTECTION FENCING
MIN.	MINIMUM		VEGETATED SWALE ALIGNMENT OR SURFACE SWALE ALIGNMENT
INV	INVERT		

CLIFFORD BECHTEL AND ASSOCIATES
CLIFFORD BECHTEL, PE
900 WALTERMIRE STREET
BELMONT, CA 94002
650-333-0903
650-637-1008 (FAX)

HUARD RESIDENCE
MAGELLAN AVENUE
SAN MATEO COUNTY
California
Miramar

CONTENTS:
EROSION & SEDIMENT CONTROL & STAGING PLAN

DATE 04/05/18
SCALE AS NOTED
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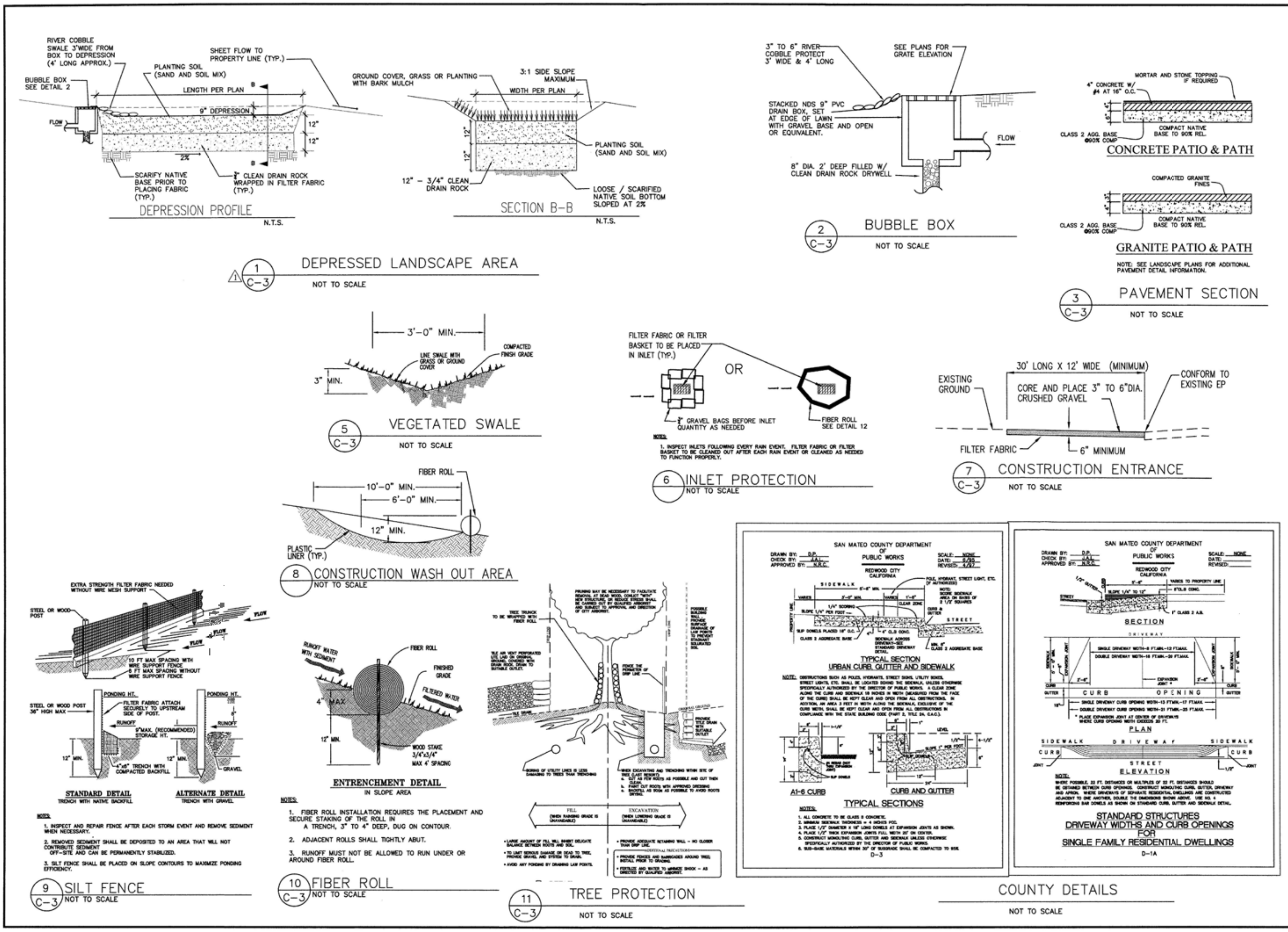
1 REV. 08/27/18
DRAWN J.G.
CHECKED C.B.
JOB No. 2018608
SHEET NO. C-2
OF 4 SHEETS



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CLIFFORD BECHTEL, PE
BELMONT, CA 94002

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MAGELLAN AVENUE
SAN MATEO COUNTY
California
Miramar

CONTENTS:
CIVIL DETAILS

DATE	04/05/18
SCALE	AS NOTED
REVISIONS:	REV. 07/30/18
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CHECKED	C.B.
JOB No.	2018608
SHEET NO.	C-3
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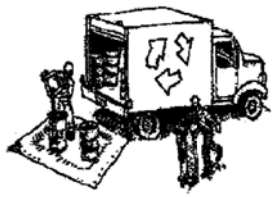
SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

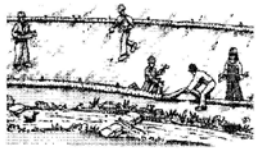
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

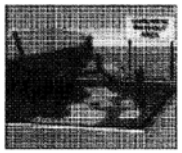
Paving/Asphalt Work

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application

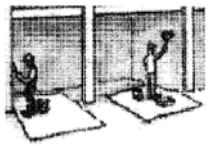


- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

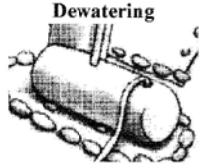
Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering



- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

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CONSTRUCTION BMP CHECKLIST

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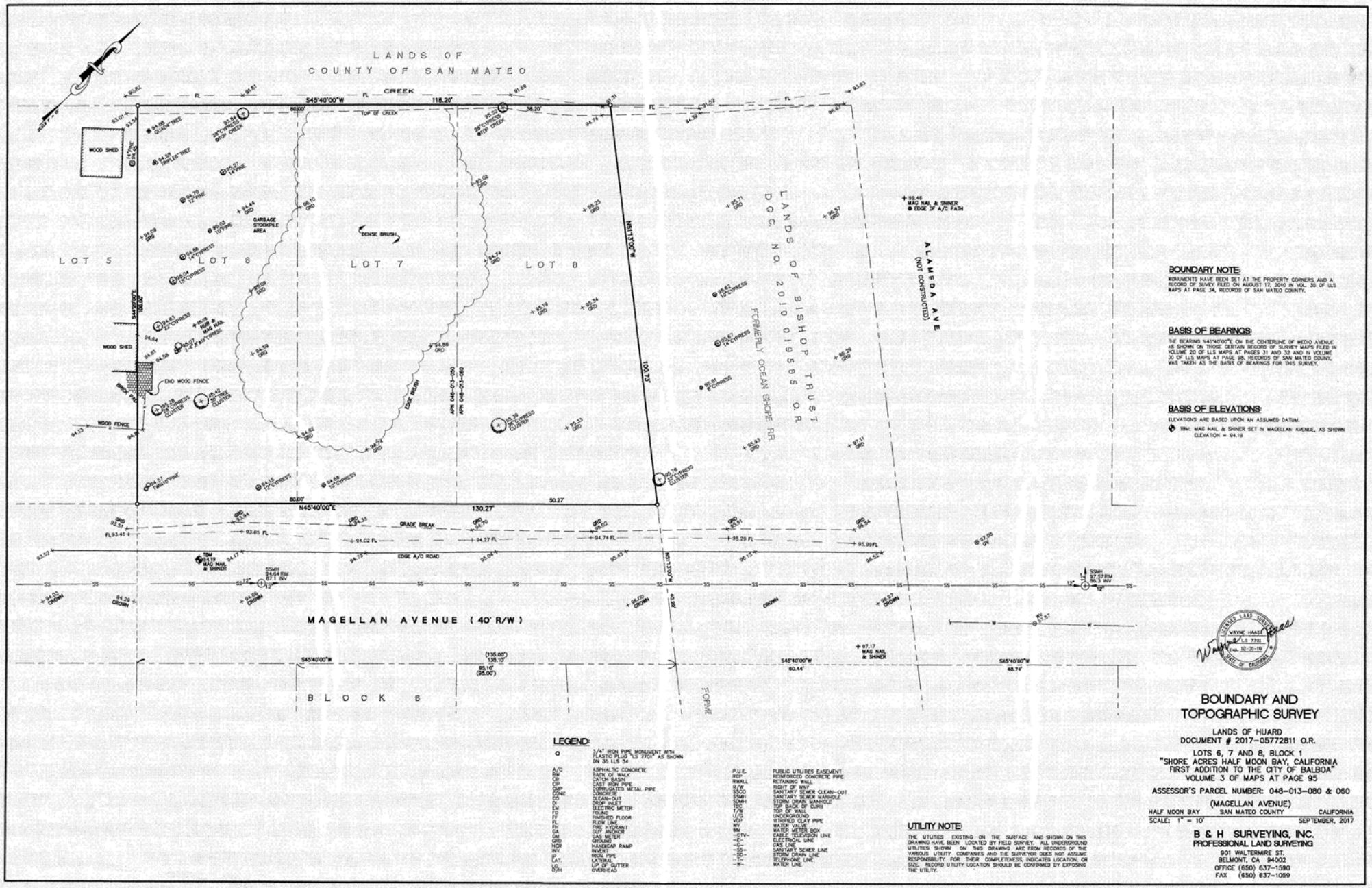
SHEET NO. C-4
OF 4 SHEETS



BOUNDARY NOTE:

MONUMENTS HAVE BEEN SET AT THE PROPERTY CORNERS AND A RECORD OF SURVEY FILED ON AUGUST 17, 2010 IN VOL. 35 OF LLS MAPS AT PAGE 34, RECORDS OF SAN MATEO COUNTY.

BASIS OF BEARINGS:

THE BEARING N45°40'00"E ON THE CENTERLINE OF MEDIO AVENUE AS SHOWN ON THOSE CERTAIN RECORD OF SURVEY MAPS FILED IN VOLUME 20 OF LLS MAPS AT PAGES 31 AND 32 AND IN VOLUME 30 OF LLS MAPS AT PAGE 98, RECORDS OF SAN MATEO COUNTY, WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

BASIS OF ELEVATIONS:

ELEVATIONS ARE BASED UPON AN ASSUMED DATUM.

TBM: MAG NAIL & SHINER SET IN MAGELLAN AVENUE, AS SHOWN ELEVATION = 94.19

LEGEND:

o	3/4" IRON PIPE MONUMENT WITH PLASTIC PLUG "LS 7701" AS SHOWN ON 35 LLS 34
A/C	ASPHALTIC CONCRETE
BW	BACK OF WALK
CB	CATCH BASIN
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CO	CLEAN-OUT
DI	DROP INLET
EM	ELECTRIC METER
FD	FOUND
FF	FINISHED FLOOR
FL	FLOW LINE
FH	FIRE HYDRANT
GA	GUY ANCHOR
GM	GAS METER
GRD	GROUND
HCR	HANDICAP RAMP
INV.	INVERT
I.P.	IRON PIPE
LAT.	LATERAL
LG	LIP OF GUTTER
O/H	OVERHEAD
P.U.E.	PUBLIC UTILITIES EASEMENT
RCP	REINFORCED CONCRETE PIPE
RWALL	RETAINING WALL
R/W	RIGHT OF WAY
SSCO	SANITARY SEWER CLEAN-OUT
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
TBC	TOP BACK OF CURB
TOW	TOP OF WALL
U/G	UNDERGROUND
VCP	VITRIFIED CLAY PIPE
WV	WATER VALVE
WM	WATER METER BOX
CTV	CABLE TELEVISION LINE
E	ELECTRICAL LINE
G	GAS LINE
SS	SANITARY SEWER LINE
SD	STORM DRAIN LINE
T	TELEPHONE LINE
W	WATER LINE

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.

LICENSED LAND SURVEYOR
WAYNE HAAS
L.S. 7701
EXP. 12-31-19
STATE OF CALIFORNIA

BOUNDARY AND TOPOGRAPHIC SURVEY

LANDS OF HUARD
DOCUMENT # 2017-05772811 O.R.

LOTS 6, 7 AND 8, BLOCK 1
"SHORE ACRES HALF MOON BAY, CALIFORNIA
FIRST ADDITION TO THE CITY OF BALBOA"
VOLUME 3 OF MAPS AT PAGE 95

ASSESSOR'S PARCEL NUMBER: 048-013-080 & 060

(MAGELLAN AVENUE)

HALF MOON BAY — SAN MATEO COUNTY — CALIFORNIA

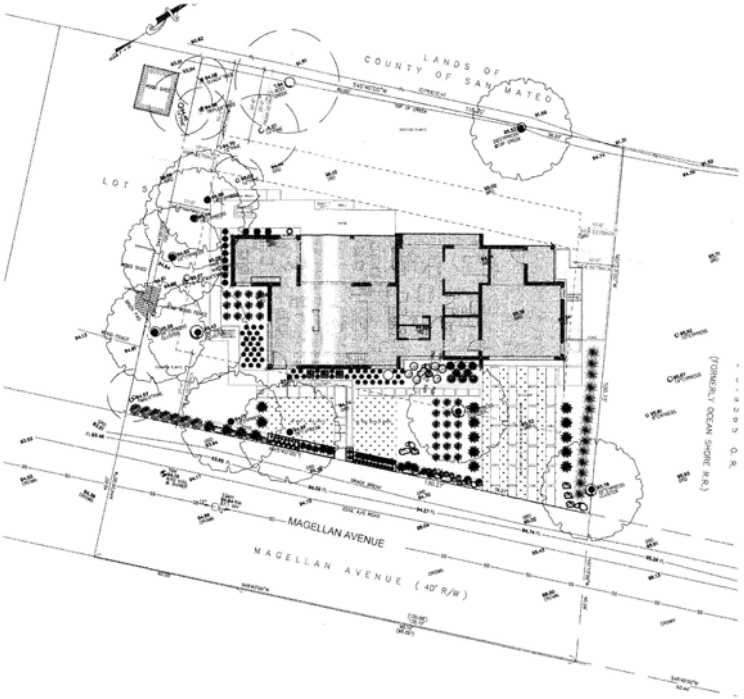
SCALE: 1" = 10' — SEPTEMBER, 2017

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

JOB: 5870-10
DWG: 5870-FIN(2017)

MAP VIEW

PROPOSED LANDSCAPE



HUARD RESIDENCE

185 Megellan Avenue - Half Moon Bay - CA

LANDSCAPE PERMIT DOCUMENTS

LA 1_A - HARDSCAPE PLAN
LA 1_B - GREENROOF PLAN
LA 1_C - DRIVEWAY DETAILS
LA 1_D - WATER FEAUTURE AND WALKWAY
LA 1_E - FIRE PIT AND BBQ COUNTER
LA 2_A - LIGHTING PLAN
LA 3_A - PLANTING PLAN
LA 3_B - PLANTING_GREENROOF PLAN
LA 3_C - LANDSCAPE NOTES AND DETAILS
LA 3_D - SOIL REPORT AND PREPARATION

* FOR IRRIGATION PLANS AND WELO SHEETS SEE BROOKWATER PLANS

**FOR TREE REMOVED SEE ARBORIST REPORT.

"I agree to comply with the requirement of the water efficient landscape ordinance and submit a complete Landscape Documentation Package"

Paul Huard Date
Property Owner

STREE VIEW

PLN2018-00154

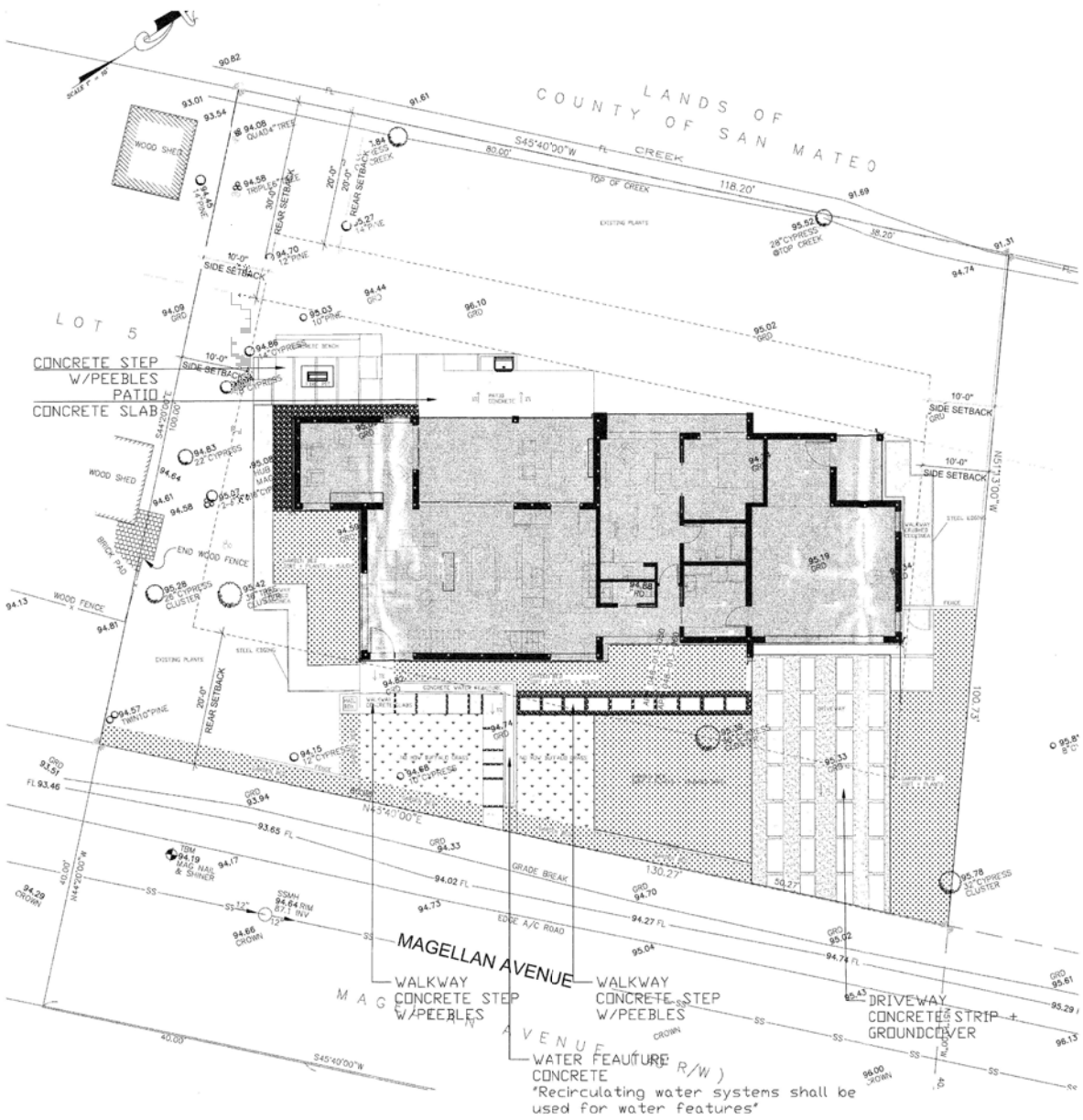
RECEIVED
JUL 9 2019
San Mateo County Planning Division

Landscape Art
Design with nature

COVER

HUARD RESIDENCE
185 Megellan Avenue - Half Moon Bay - CA

PROJECT REVIEW



Huard Residence_Landscape Lot Areas_Permit x Proposed_Jun 28/2019

Total Lot Area	12,424 sf	
	PERMITTED (sq.ft)	PROPOSED (sq.ft)
Lot Coverage (house)	3,727 sq.ft (30%)	2,411
Lot Coverage (Hardscape over 18")		101.35
Impervious Area	1,170 sq.ft (max)	1,145
Landscape Area (total)	8,697 sq.ft (min 70%)	10,013
Native/Existing Landscape	NOT IRRIGATED	8,253
Now Mow Buffalo Grass (total)	2,503 sq.ft (max 25% Landscape)	773
Greenroof		411
Front Yard		PROPOSED
Driveway area(Concrete)		337
Hardscape area(Walkway+Water feature)		320
Soft Landscaping area		1,252
No mow Bufalo Grass		398
Native/Existng Landscape	NOT IRRIGATED	620
Driveway Ne mow Buffalo Grass Strip		436
Front yard Landscaping Area		**3363**
Backyard (Rear)		PROPOSED
Hardscape area(Patio)		465
Soft Landscaping area (Garden Beds)		0
Turf		0
Native/Existng Landscape	NOT IRRIGATED	4671
Backyard Landscaping Area		**5136**
Sides yards		PROPOSED
Hardscape area		0
Walkway Crushed Coccinea		273
Soft Landscaping area (Garden Beds)		279
Turf		0
Native/Existng Landscape	NOT IRRIGATED	962
Backyard Landscaping Area		**1514**

LEGEND

- CONCRETE
- CRUSHED SHELL
- PEEBLES
- DIRT FOR LANDSCAPE
- NO MOW BUFFALO GRASS
- CALIFORNIA MEADOW SEDGE

01 Landscape Plan
1/8"=1'-0"

Landscape Art
Design with nature

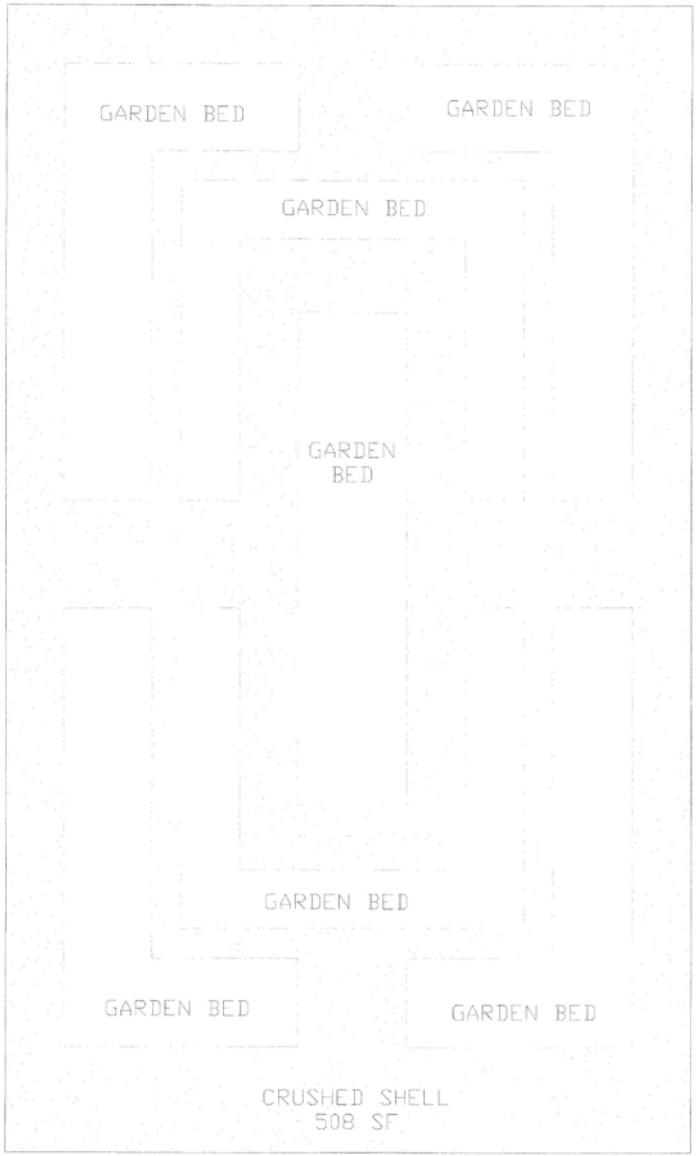
SCALE	1/2"=1'-0"
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
#1	Feb,13/2018
#2 - City Review	Aug, 31/2018
#3 - City Review	Jun, 28/2019

LA- 1-A

HUARD RESIDENCE

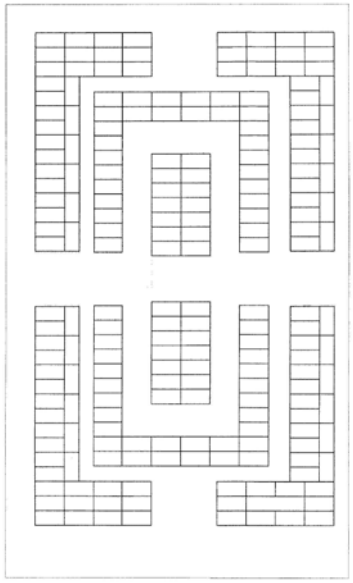
185 Megellan Avenue - Half Moon Bay - CA

HARDSCAPE PLAN



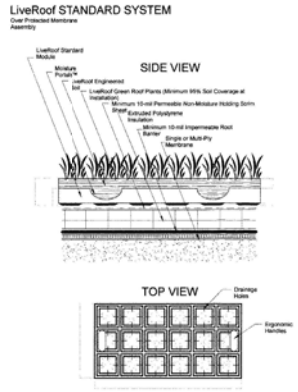
01 Greenroof Plan

1/2"=1'-0"



02 Greenroof Tray System (180 TRAY 2'X1')

1/4"=1'-0"



03 Tray Installation

NO SCALE

Landscape Art
Design with nature

SCALE	1/2"=1'-0"
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
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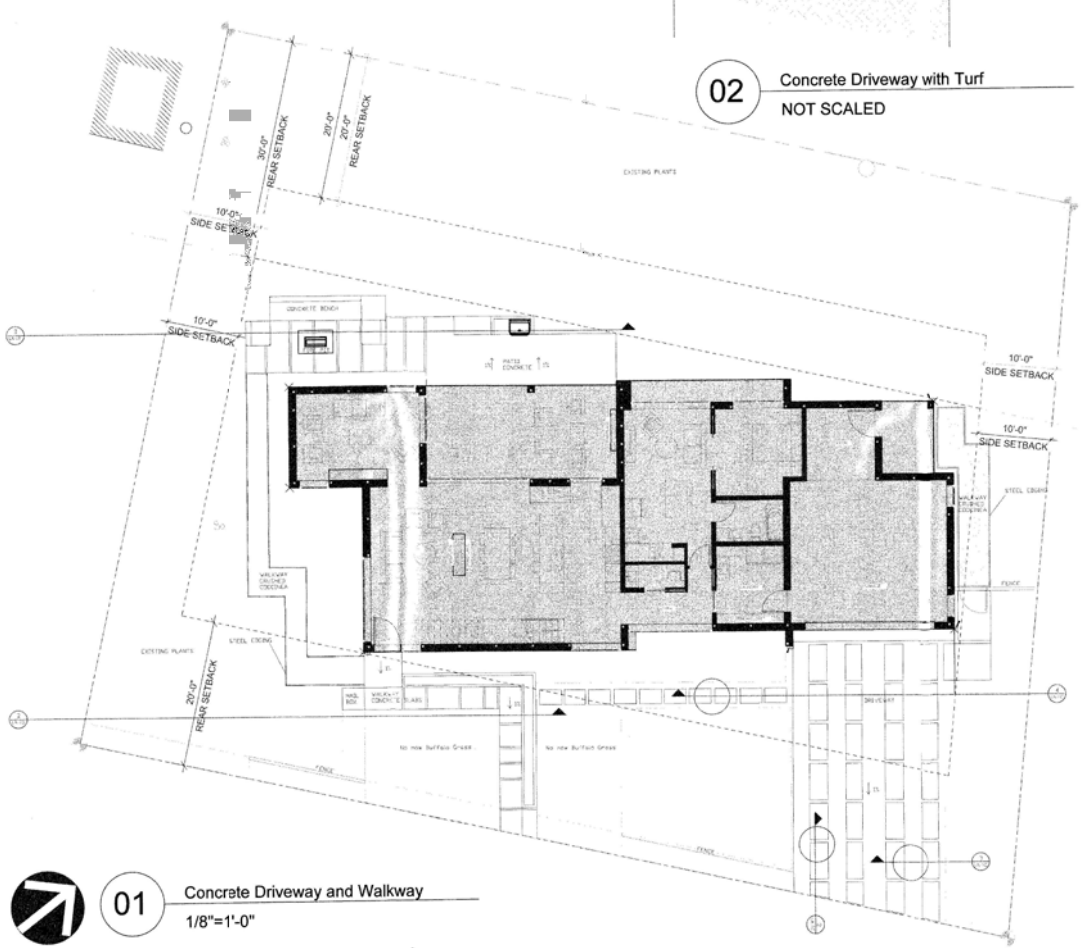
LA- 1-B

HUARD RESIDENCE

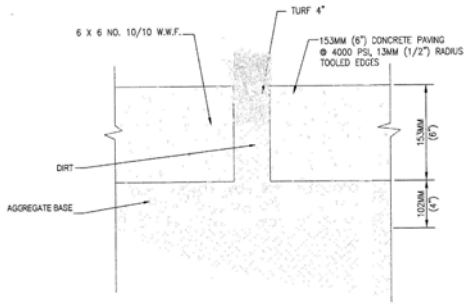
185 Megellan Avenue - Half Moon Bay - CA

HARDSCAPE GREENROOF



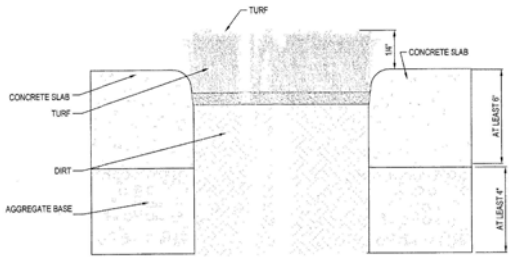
01 Concrete Driveway and Walkway

1/8"=1'-0"



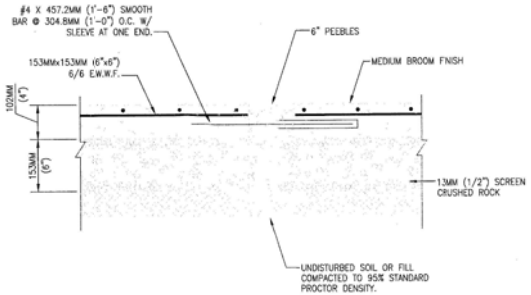
02 Concrete Driveway with Turf

NOT SCALED



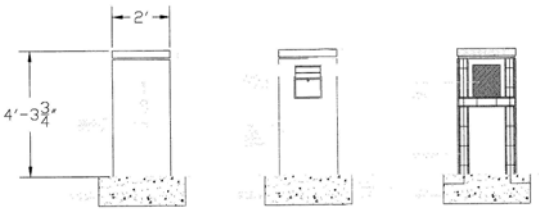
03 Concrete Driveway with Turf

NOT SCALED



04 Concrete Walkway Detail

NOT SCALED



05 Mail Box

3/8'-1'-0"

Landscape Art
Design with nature

SCALE	AT THE DRAWING
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
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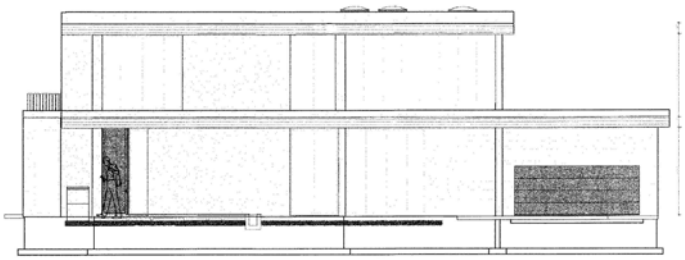
#3 - City Review	Jun, 28/2019

LA- 1-C

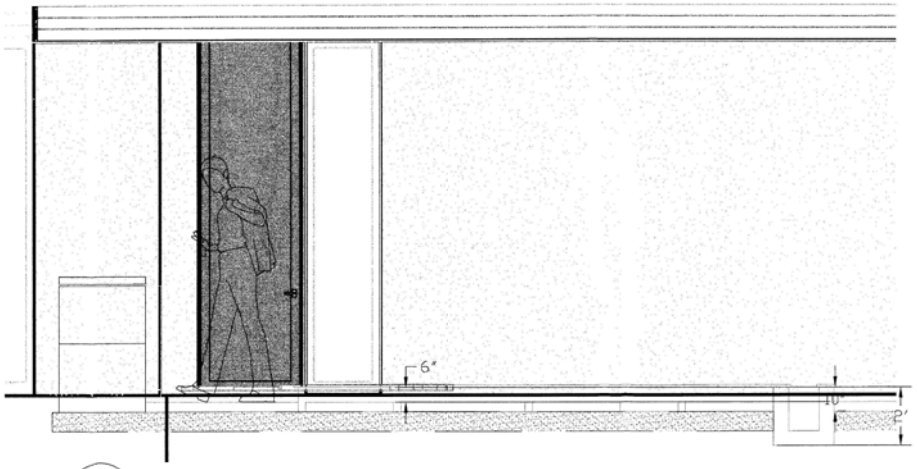
HUARD RESIDENCE

185 Megellan Avenue - Half Moon Bay - CA

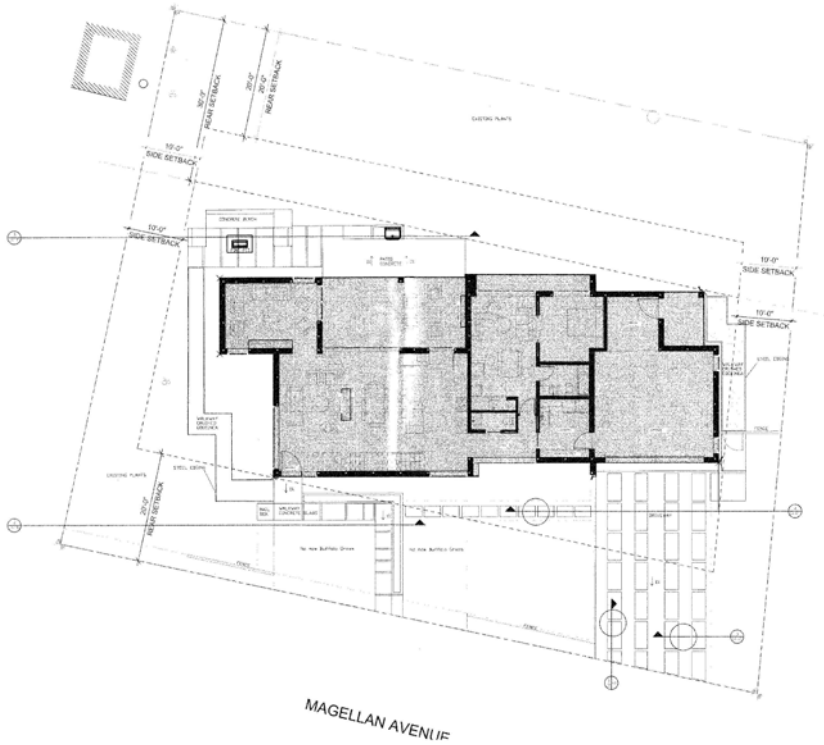
DRIVEWAY AND WALWAY DETAILS

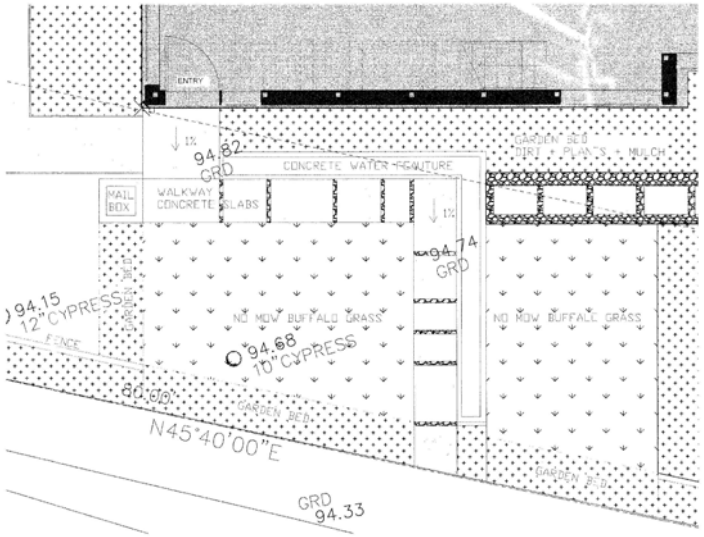


02 Water Feature
1'/8"=1'-0"



03 Water Feauture
1/2"-1'-0"





01 Concrete Water Feauture
1'/4"=1'-0"

Landscape Art
Design with nature

SCALE	AT THE DRAWING
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
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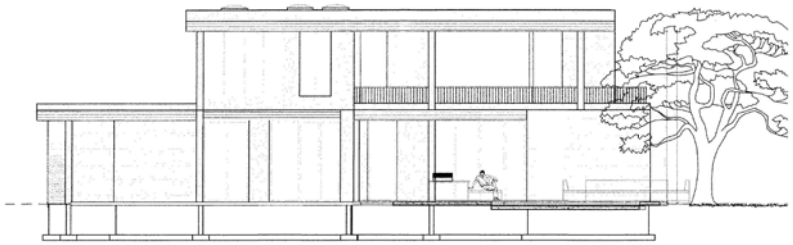
#3 - City Review	Jun, 28/2019

LA- 1-D

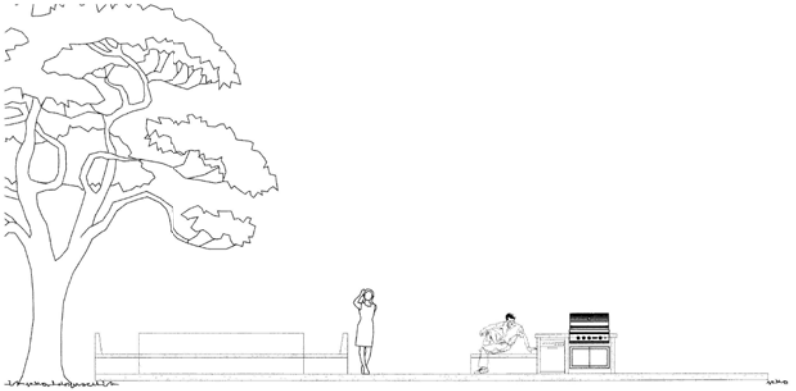
HUARD RESIDENCE

185 Megellan Avenue - Half Moon Bay - CA

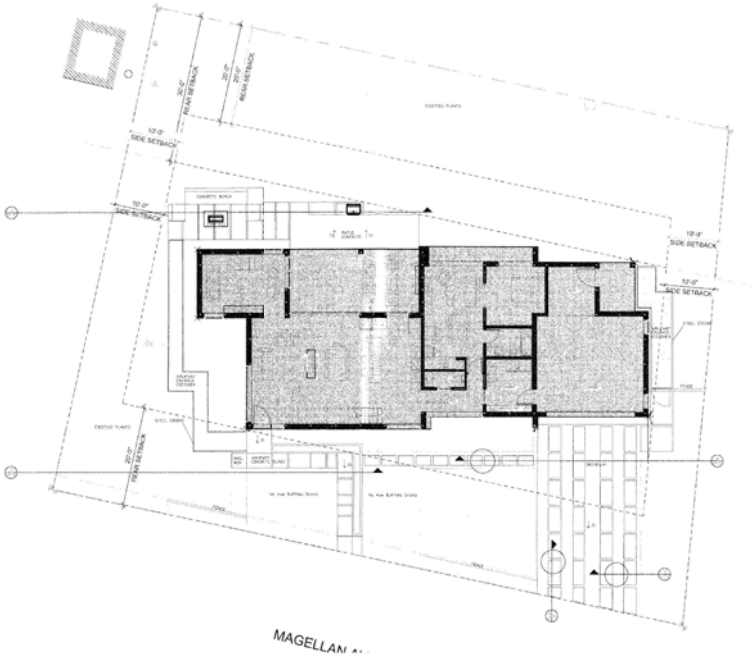
WATER FEAUTURE

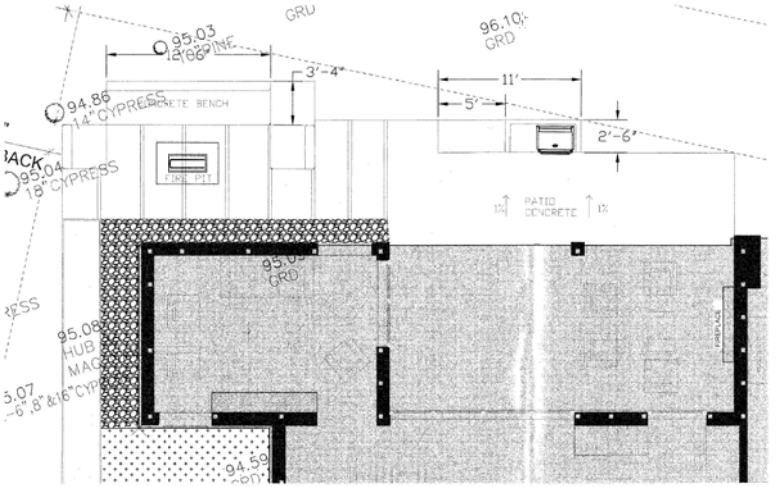


02 Fite pit & BBQ Counter
1'/8"=1'-0"



03 Fire pit & BBQ Counter
1/4"-1'-0"





01 Fire Pit & BBQ Counter
1'/4"=1'-0"

Landscape Art
Design with nature

SCALE	AT THE DRAWING
DESIGNEC BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
#1	Feb,13/2018
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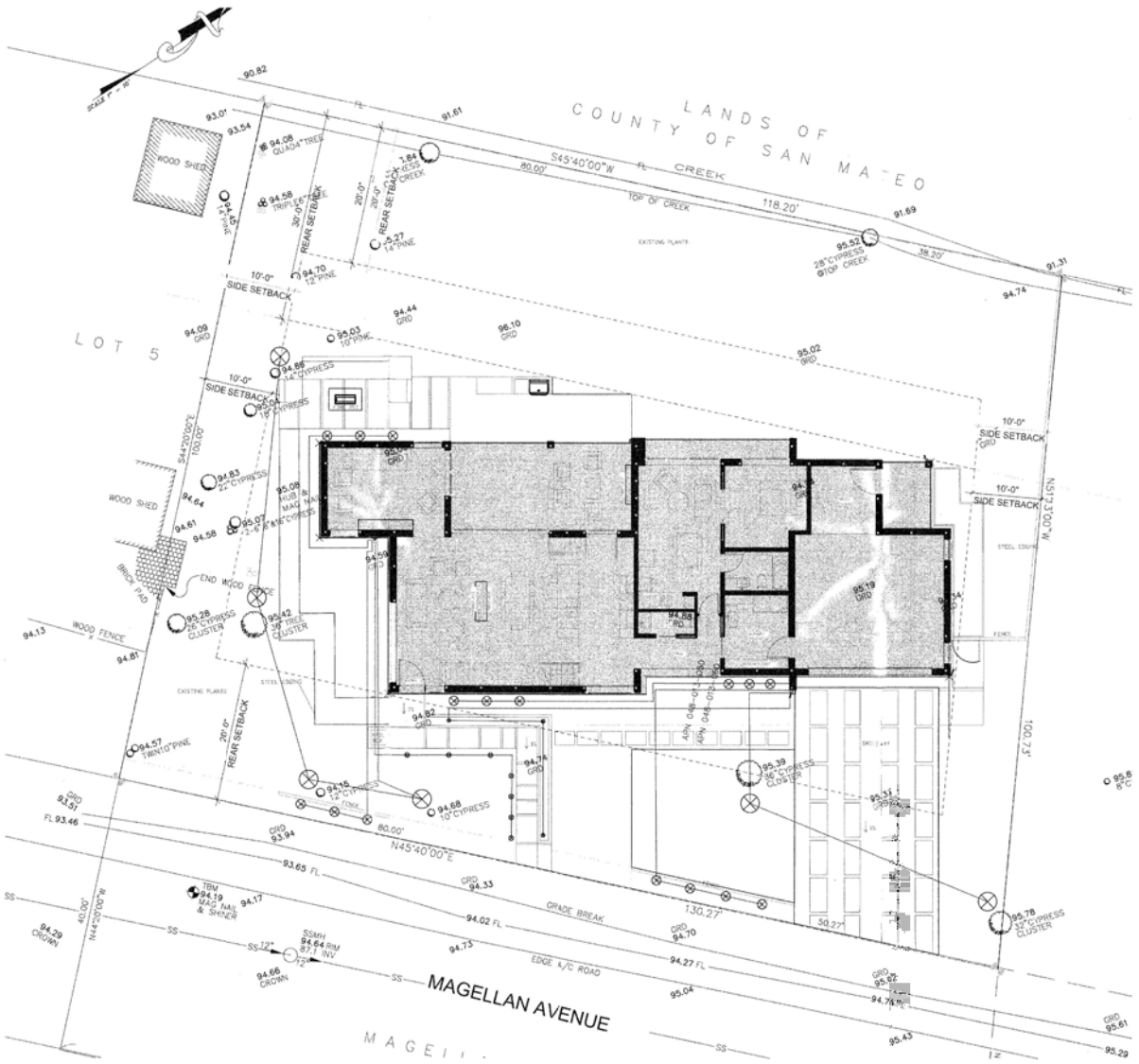
#3 - City Review	Jun, 28/2019

LA- 1-E

HUARD RESIDENCE
185 Megellan Avenue - Half Moon Bay - CA

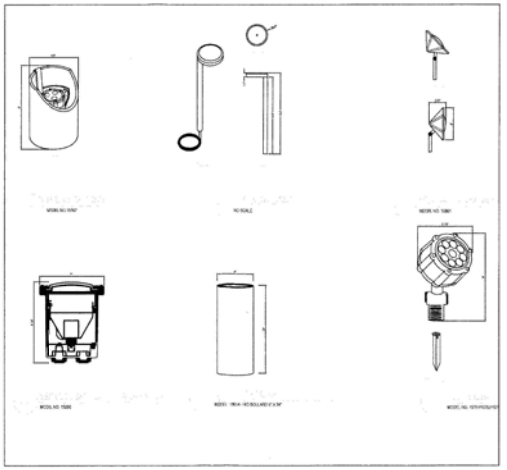
FIRE PIT & BBQ COUNTER



LEGEND

- MAIN WIRE
- TP — PANEL CONTROL/TIMER
- TREE UPLIGHT
- WALL WASH LIGHT
- ACCENT UPLIGHT
- PATH UPLIGHT
- UNDER WATER LANDSCAPE LIGHT

OUTDOOR LIGHTING MODELS



01 Outdoor Lighting Plan
1/8"=1'-0"

Landscape Art
Design with nature

SCALE	1/8"=1'-0"
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
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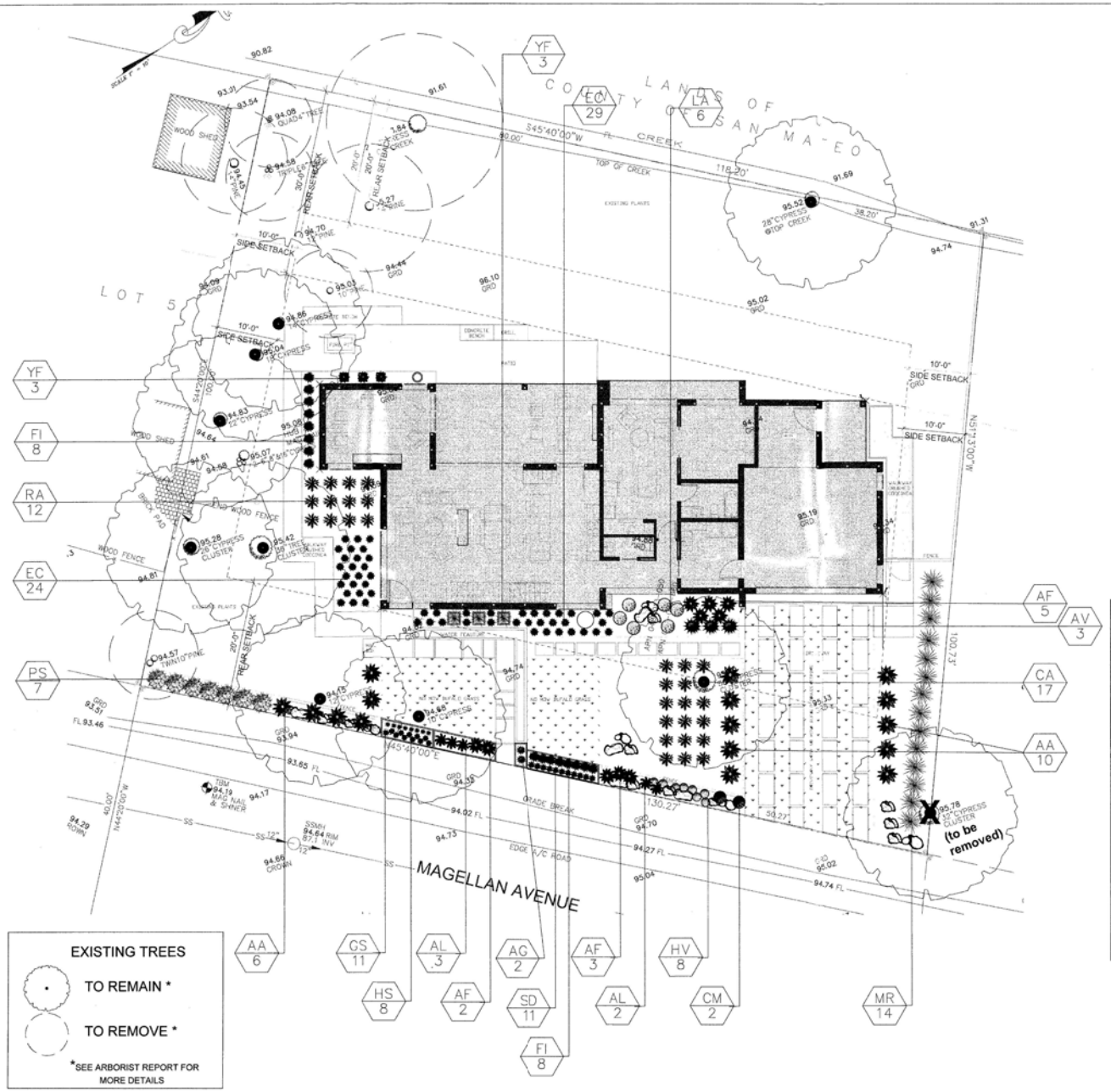
#3 - City Review	Jun, 28/2019

LA-2-A

HUARD RESIDENCE

185 Megellan Avenue - Half Moon Bay - CA

LIGHTING PLAN



EXISTING TREES

TO REMAIN *

TO REMOVE *

*SEE ARBORIST REPORT FOR MORE DETAILS

WUCOLS+PLANT LIST_GROUND FLOOR_Huard Residence_CA_ Plant zone: 10a_Jun 26/2019

PERENIALS	WUCOLS	BOTANICAL NAME	COMMON NAME	MATURE HT - SPREAD	SPACING	COLOR	BLOOM	CHARACTERISTICS	CONT. SIZE	QTY
EC	VL	Escfscholzia californica	California poppy	1-3FT	1FT		Feb to Oct	Native Drought	1 gal	53
LA	VL	Lupinus arboreus	Coastal Bush Lupine	3-6FT	3FT	Yellow	Spring	Native Drought	3 gal	6
AF	L	Anigozanthos flavidus	Kangaroo paw 'RED'	3-6 FT	3FT		Spring-Summer	Drought tolerant	5 gal	7
AF	L	Anigozanthos flavidus	Kangaroo paw 'YELLOW'	3-6 FT	3FT		Spring-Summer	Drought tolerant	7 gal	3
HV	L	Heterotheca villosa (chrysopsis villosa)	Hairy golden aster	2-3 FT	1.5FT		Summer	Drought tolerant	3 gal	8
CM	L	Coreopsis maritima	Sea dahlia	1-3FT	1 FT	Yellow	Summer	Native Drought	3 gal	2

DROUGHT/ SUCCULENTS	TYPE	BOTANICAL NAME	COMMON NAME	MATURE HT - SPREAD	SPACING	COLOR	BLOOM	CHARACTERISTICS	CONT. SIZE	QTY
AL	L	Aloe spp.	Aloe	3-6 FT	3FT	Yellow	NA	Drought tolerant	5 gal	5
AA	L	Agave spp	Agave foxtail	3-5 FT	3 FT	NA	NA	Drought tolerant	5 gal	16
AV	L	Agave spp	Agave foxtail Var	3-5 FT	3 FT	NA	NA	Drought tolerant	5 gal	3
AG	L	Agave spp	Agave blue glow	3-5 FT	3 FT	NA	NA	Drought tolerant	3 gal	2
YF	L	Yucca filamentosa	Yucca	3-5 FT	3 FT	White	Summer	Drought tolerant	5 gal	6
SD	L	Sedum spp.	Sedum	1 FT	1 FT	NA	NA	Drought tolerant	Pot	11
GS	VL	Graptopetalum spp.	graptopetalum	1 FT	1 FT	NA	NA	Drought tolerant	Pot	11
HS	L	Haworthia spp.	haworthia	1 FT	1 FT	NA	NA	Drought tolerant	Pot	8

GRASS/FERN	TYPE	BOTANICAL NAME	COMMON NAME	MATURE HT - SPREAD	SPACING	COLOR	BLOOM	CHARACTERISTICS	CONT. SIZE	QTY
CA	L	Calamagrostis spp	Feather Reed	H 3-5 FT W1-2.5FT	2FT	Pink	May-Feb	Good fall color	5 gal	17
FI	VL	Festuca idahoensis	Idaho fescue	1-1.5FT	1.5FT	NA	NA	Drought tolerant	1 gal	16
PS	L	Pennisetum setaceum	Fountain grass	H 3-5FT W2-4FT	2.5FT	WHITE	Summer-Fall	Bird attract	3 gal	7
MR	L	Muhlenbergia rigens	deer grass	H 3-6FT W2-3FT	2.5 FT		Fall	Drought tolerant	5 gal	14
RA	M	Rumohra adiantiformis	leather leaf fern	3FT	2.5 FT	NA	NA	Easy care	3 gal	12

GROUNDCOVER	TYPE	BOTANICAL NAME	COMMON NAME	MATURE HT - SPREAD	SPACING	COLOR	BLOOM	CHARACTERISTICS	CONT. SIZE	QTY
BG	L	Bouteloua gracilis	UC Verde buffalo grass	NA	NA	NA	NA	Low water Grass	SF	398 SF
CP	M	Carex praegracilis	California Meadow Sedge	NA	Na	Na	Na	Medium water grass	SF	436 SF

NOTES

1 . A Certificate of Completion shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed landscape contractor for the project.

2. At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule of landscape and irrigation maintenance.

3. Contractors must see the Soil report to follow the recomemendations of the lab for soil preparation, see page LA-3-D for more details.

01 Planting Plan

1/8"=1'-0"

Landscape Art
Design with nature

SCALE	1/8"=1'-0"
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
#1	Feb,13/2018
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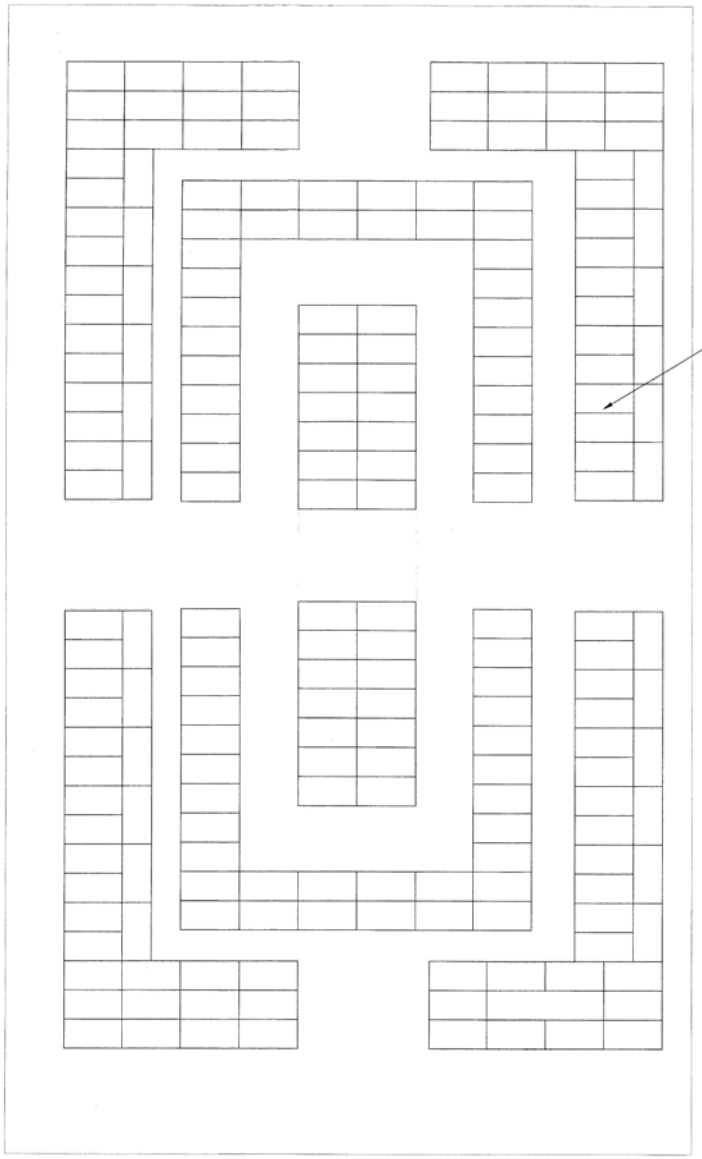
LA-3-A

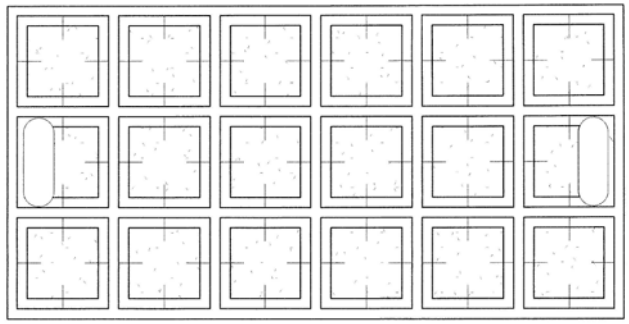
HUARD RESIDENCE

185 Megellan Avenue - Half Moon Bay - CA

PLANTING PLAN



TOP VIEW



02 Tray Top view
NO SCALE

WUCOLS+PLANT LIST_GREENROOF_Huard Residence_CA_ Plant zone: 10a_Jun 28/2019

DROUGHT/ SUCCULENTS	TYPE	BOTANICAL NAME	COMMON NAME	MATURE HT - SPREAD	SPACING	COLOR	BLOOMS	CHARACTERISTICS	CONT. SIZE	QTY
SD	L	Sedum spp.	Sedum	15"	NA	YELLOW	NA	Drought tolerant Succlent	in tray	1440
GS	VL	Graptopetalum spp.	graptopetalum	12"	NA		NA	Drought tolerant Succlent	in tray	1440
AS	VL	Allium schoenoprasum	Allium Pink	18"	NA		Spring	Drought tolerant	in tray	180
AM	L	Achillea millefolium (CA native cultivars)	Achillea	2-3FT	NA		Summer	Drought tolerant Native Butterfly Attract	in tray	180

01 Greenroof Planting Plan
1/2"=1'-0"

Landscape Art
Design with nature

SCALE	1/2"=1'-0"
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
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LA- 3-B

HUARD RESIDENCE
185 Megellan Avenue - Half Moon Bay - CA

HARDSCAPE GREENROOF

JOB CONDITIONS:

Any building construction material or foreign material shall be removed from planting areas and replaced with acceptable top soil.

Care shall be taken not to disturb or damage any underground construction or utilities. Any damage to these facilities during the planting operations will be repaired at the expense of the Landscape Contractor in a manner approved by the Owner. Where underground obstructions will not permit the planting materials in accordance with the plans, new locations shall be approved by the Landscape Architect.

Landscape work shall be coordinated with the landscape irrigation work. Landscape Contractor shall ensure that no plantings will interfere with the proper coverage. Landscape Contractor shall point out situations where minor adjustments or relocation or addition of sprinklers heads may be most beneficial for the landscape work as a whole.

PLANT MATERIAL:

Plant species and size shall conform to those indicated on the drawings. Nomenclature shall conform to STANDARDIZED PLANT NAMES, LATEST EDITION. All plant material shall be in accordance with GRADES AND STANDARDS FOR NURSERY PLANTS, latest edition published by the Florida Department Agriculture and Consumer Services. All plants not otherwise specified as Florida Fancy, or Specimen, shall be Florida Grade Number 1 or better as determined by the Florida Grade Plant Industry. Specimen means an exceptionally heavy, symmetrical, tightly-knit plant, so trained or favored in its development that its appearance is unquestionable and outstandingly superior in form, number of branches, compactness and symmetry. All plants shall be sound, healthy, vigorous, well branched and free of disease and insect eggs and larvae and shall have adequate root systems. Trees and shrubs for planting rows shall be uniform in size and shape. All materials shall be subject to approval by the Landscape Architect. Where any requirements are omitted from the Plant List, the plants furnished shall be normal for the variety.

All container grown material shall be healthy, vigorous, well-rooted plants and established in the container. The plants shall have tops which are good quality and are in a healthy growing condition. An established container grown plant shall be transplanted into a container and grown in that container long enough for the new fibrous roots to have developed enough to hold the root mass together when removed from the container. Root bound plants will not be accepted.

Site water shall be verified by Contractor prior to submission of bids.

The use of natural material is strongly encouraged for balled and burlapped plants. All synthetic material shall be completely removed from root ball PRIOR to planting.

At time of bid, Contractor shall submit a written schedule of all sources for coconut palms as well as seed sources for coconuts. Coconuts shall be certified Malayan Green with a certified seed source from Jamaica.

TREES:

The most critical factor for selecting a healthy Florida Number 1 tree is the structure. This consists of one central main trunk and leader. Branches are considered competing if they are 2/3 the diameter of the leader or greater. Competing branches may be acceptable if they occur above 50% of the overall height of the tree. Caliper of tree should meet specifications. Leader (center trunk) may have slight (<15 degree) bow (Tabebuia caraiba excluded), but must be intact with apical (leading) bud.

Branches should be spread evenly (staggered, alternating) through the tree branches spaced no closer than 4".

Canopy should be full to specifications with little or no openings or holes. A thinning canopy will be taken into consideration with field dug plant material.

Trees should have no open wounds or damage, flush cuts, chlorosis, shorter or taller than specified height, girdling roots, undersize loose root ball, crossing branches, smaller than normal leaves.

10% of root ball shall be above grade after planting. Root ball tying ropes removed from trunk and top of root ball.

MULTIPLE TRUNK TREES:

Trees having no distinct leader. Trunks on these trees should not be touching and free of damage and similar in size. Canopy should be full and uniform.

RELOCATED TREES:

These trees may not conform to grades and standards, yet do have quality criteria which effect the health, longevity and safety of the tree (and person which may contact tree). This is NOT meant to be a guideline for transplanting trees, but rather the criteria by which relocated trees will meet Town, County, State or governing agency guidelines. Trees which require excessive pruning should NOT be used. Damaged or dead relocated trees will be replaced with appropriate number of caliper inches and species equal to relocated or dead tree, as approved by the Landscape Architect.

No more than 20% of the foliage should be removed for any reason (excluding Sabal Palms). Trees should be corrected for any structural defects, touching branches, dead or rotting wood, V-shaped branching or branching which may effect human safety issues post relocation. Topping a relocated tree is not acceptable.

Damage to the trunk/branches will not exceed 10% of the trunk diameter and 2" in height.

Any major limb or canopy pruning will be qualified and performed by a Certified Arborist.

IRRIGATION

Provide bubblers on separate zones for all newly planted and transplanted trees unless alternate approach to provide additiona water is approved by owner and Landscape Architect.

MATERIALS LIST:

Landscape Contractor shall be responsible for verifying all quantities for material shown on drawings prior to submitting a bid. Planting plan shall take precedence over the plant list. Final quantity of sod and mulch shall be verified.

SUBSTITUTIONS:

No substitutions shall be made without the approval from the Landscape Architect and/or the Owner. Intended substitutions shall be indicated on the bid.

MEASUREMENTS:

Canopy Trees- Height shall be measured from the ground to the average height of canopy. Spread shall be measured to the end of branching equally around the crown from the center of the trunk. Caliper (d.b.h.) will be measured 4'-6" above grade.

Shrubs- Height shall be measured from the ground. Spread shall be measured to the end of branching equally around the shrub mass.

Palms- Clear trunk (C.T.) shall be measured from the ground to the point where the mature aged trunk joins the immature or green part of the trunk or head.

Overall height (O.A.) shall be measured from the ground to the tip of the unopened bud.

IRRIGATION:

100% irrigation coverage shal be provided. Provide bubblers on separate zones for all newly planted and transplanted trees unless alternate approach to provide additional water is approved by Owner and Landscape Architect.

GUARANTEE:

All new plant materials shall be guaranteed for one year from the time of acceptance and shall be alive and in satisfactory growth for each specific kind of plant at the end of the guarantee period. The Landscape Contractor shall not be responsible for damage caused by vandalism, violent wind storms or other acts of God beyond control. Replacement shall occur within two weeks of rejection and guaranteed six months from date of installation. Landscape Contractor shall repair damage to other plants or lawns during plant replacements at no additional cost.

MULCH:

A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.

SOIL:

For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.

TURF:

All turf shall be installed in such a manner that there is an even surface, staggered pattern. Turf will be green in color and in good health. NO overlap, gaps, damage, insects, disease and less than 10% chlorosis will be permitted. All gaps will be filled with clean native soil.

STAKING:

Landscape Contractor to suggest alternate means of staking for approval with Landscape Architect if staking methods shown are not feasible due to site conditions.

FERTILIZER:

Manufacturer's Specification: Submit manufacturer's specification sheet(s) for approval of product. Submit tags from bags of fertilizer used on site to the Architect. Submit copies of the manufacturer's specifications or analysis of all fertilizer for approval.

Composition and Quality: All fertilizer shall be uniform in composition and dry. Granular fertilizer shall be free flowing and delivered in unopened bags. Tablet fertilizer shall be delivered in unopened containers or boxes. All bags, containers or boxes shall be fully labeled with the manufacturer's analysis.

Fertilizer shall be slow release with ratio greater than 3 to 1 nitrogen to phosphorous applied on top of backfill, per manufacturer's recommendations.

All shall comply with the State of Florida fertilizer laws.

CLEANUP:

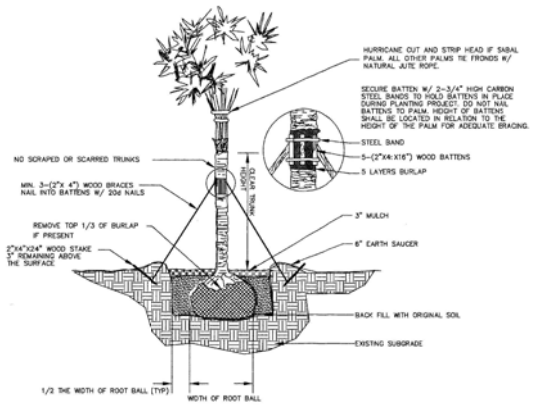
Landscape Contractor shall a: all times keep job site clean and free from accumulation of waste material, debris and rubbish.

IRRIGATION INSPECTION:

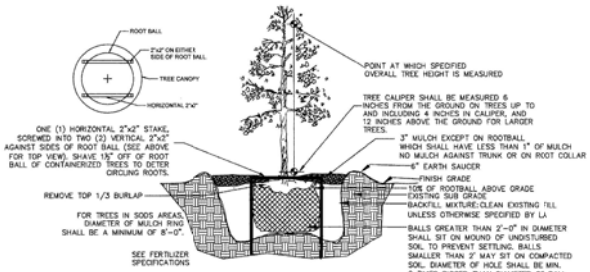
An Irrigation audit report shall be completed at the time of final inspection.

COMPLETION:

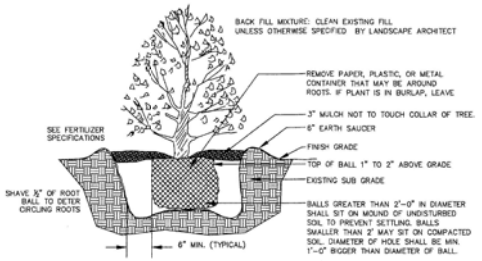
A Certificate of Completion shall be filled out and certified by either the designer of the landscape plans, irrigation plans, or the licensed contractor for the project.



PALM PLANTING DETAIL



TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

Landscape Art
Design with nature

SCALE	NO SCALE
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
#1	Feb,13/2018
#2 - City Review	Aug, 31/2018
#3 - City Review	Jun, 28/2019

LA-3-C

HUARD RESIDENCE

185 Megellan Avenue - Half Moon Bay - CA

SOIL REPORT AND APPLICATION

Waypoint ANALYTICAL

San Jose Office
July 30, 2018
Report 18-197-0104 Updated

Paul Huard
350 Sequoia Ave.
Palo Alto, CA 94306

RE: Huard@Magellan, Half Moon Bay, Job HMB1

Background

One sample was processed on July 16, 2018 identified as site soil from a depth of 1 to 18 inches from an area that is scheduled for new landscaping. Fertilizer and amendment recommendations were requested. The sample was analyzed for horticultural suitability, fertility, and physical characteristics for WELO compliance. The results of the analyses are attached.

Analytical Results and Comments

The reaction of the sample is moderately alkaline at a pH of 7.9 with high qualitative lime present. This is considered to be above the range preferred by most plants and could cause most plants to show some yellowing of foliage and poor vigor. The high lime present will also help buffer the soil in the alkaline range. If you choose to use this soil for planting purposes, incorporation of soil sulfur is recommended to help decrease the pH to a more favorable range. Soil sulfur works slowly and most efficiently only to the depth it is incorporated. It may require multiple applications of soil sulfur in order to decrease the soil pH to a more favorable range. Alkalinity in the subsoil will remain elevated and this should be taken into account during plant selection.

Salinity (ECe), sodium and boron are safely low. The sodium adsorption ratio (SAR) indicates that sodium adequately balanced by soluble calcium and magnesium; this balance is important for soil structure quality, which relates to the rate at which water infiltrates the soil.

According to the USDA Soil Classification system, the less than 2mm fraction of the soil is classified as clay in all three samples. Organic content is low at 1.6% dry weight. Based on this information, the estimated infiltration rate is a slow 0.13 inch per hour. Infiltration rates may vary due to potential differences in compaction across the site.

The over 70% silt plus clay present indicates that this material will have a strong potential for slow drainage and high water holding capacity and irrigation timing should take this into account. Additional subdrainage is recommended for larger specimens being installed in flat areas in this soil.

In terms of soil fertility, nitrogen, phosphorus and potassium are low. All of the other major nutrients are sufficient to abundant for proper plant nutrition at this time. Of the micronutrients; copper is sufficient and manganese is fair while zinc and iron are low.

Recommendations

If these soils will be used for planting purposes despite the elevated silt and clay content and potential for poor drainage then nitrogen, phosphorus and potassium fertilizers are recommended at the time of planting along with a nitrogen stabilized organic amendment or composted greenwaste product in order to help improve soil nutrient holding capacity and porosity. If a composted greenwaste amendment is

1101 S Winchester Blvd., Ste. G-173 San Jose, CA 95128
(408) 727-0330 (408) 727-5125 fax
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Paul Huard
Report 18-197-0104 Updated

chosen, that would provide additional phosphorus and potassium as well as supplemental micronutrients, product depending.

The primary symptom of zinc, manganese and iron deficiencies is a general yellowing of leaves with veins remaining green. In severe cases, leaves may become pale yellow or whitish, but veins remain green. Brown spots may develop between veins and leaf margins may turn brown. Zinc deficiencies typically appear first on older, interior leaves. Manganese deficiency symptoms appear first on younger leaves. Iron deficiency shows first and more severely on the newer growth at branch tips. If these symptoms are present after plant installation they may be treated with an application of a chelated micronutrient product at the manufacturer's recommended rate. Decreasing the soil pH to a more favorable range will also help improve micronutrient availability. Incorporation of a composted greenwaste amendment would also provide additional micronutrients and may be sufficient to negate any deficiency, product depending.

To Prepare For Mass Planting:
Drainage of the root zone should be improved by first loosening the top 10 inches of any undisturbed or compacted soil. The following materials should then be evenly spread and thoroughly blended with the top 6 inches of soil to form a homogenous layer:

Amount per 1000 Square Feet	
5 cubic yards	Nitrogen Stabilized Organic Amendment*
7 pounds	Ammonium Phosphate (16-20-0)*
9 pounds	Potassium Sulfate (0-0-50)*
25 pounds	Soil Sulfur

*The rate may change based on the analysis of the chosen organic amendment. This rate is based on 270 lbs. of dry weight of organic matter per cubic yard of amendment. If a composted greenwaste amendment is selected that contains a significant amount of phosphorus or potassium, the ammonium phosphate should be replaced with ammonium sulfate (21-0-0) at a 7 pound rate and the potassium sulfate should be reduced or omitted accordingly.

It may require multiple applications of soil sulfur in order to continue pH decrease to a more favorable range over time.

For turf areas the organic amendment should be decreased by half.

To Prepare Backfill For Trees and Shrubs:
- Excavate planting pits at least twice as wide as the diameter of the rootball.
- Soil immediately below the root ball should be left undisturbed to provide support but the sides and the bottom around the side should be cultivated to improve porosity.
- The top of the rootball should be at or slightly above final grade.
- The top 12 inches of backfill around the sides of the rootball of trees and shrubs may consist of the above amended soil or may be prepared as follows:

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Report 18-197-0104 Updated

3 parts	Site Soil
1 part	Nitrogen Stabilized Organic Amendment*

Uniformly blended with:

Amount per Cubic Yard of Backfill	
1/3 pound	Ammonium Phosphate (16-20-0)*
1/2 pound	Potassium Sulfate (0-0-50)*
1 1/3 pounds	Soil Sulfur

- Backfill below 12 inches required for 24 inch box or larger material should not contain the organic amendment, ammonium phosphate or soil sulfur but should still contain the potassium sulfate at the recommended rate. Iron sulfate should be incorporated at a 2 1/2 pound rate in order to continue pH decrease below 12 inches in depth. Caution: Iron sulfate can stain moist concrete. In order to improve phosphorus nutrition below 12 inches in depth, triple superphosphate (0-45-0) should be incorporated at a 1/4 pound rate.
- Ideally a weed and turf free zone should be maintained just beyond the diameter of the planting hole. A 2-4 inch deep layer of coarse mulch can be placed around the tree or shrub. Mulch should be kept a minimum 4 inches from the trunk.
- Irrigation of new plantings should take into consideration the differing texture of the rootball substrate and surrounding soil matrix to maintain adequate moisture during this critical period of establishment.

Maintenance

For turf areas, new sod should receive a light fertilization 2 weeks after planting with 16-6-8 applied at a rate of 4 pounds per 1000 square feet. For turf from seed this application should be after the first mowing. The area may then be maintained with primarily a nitrogen program of applying 5 pounds of ammonium sulfate (21-0-0) per 1000 square feet. Treatment should be at 45 to 60 day intervals until the turf becomes well established. Once the turf is well established, the frequency of fertilization should be decreased depending on color and rate of growth desired. In the spring and fall substitute a complete fertilizer such as 15-15-15 to help insure continuing adequate phosphorus and potassium.

Maintenance fertilization for other areas should rely primarily on a nitrogen only program supplemented with a complete fertilizer in the fall and spring. Beginning 45-60 days after planting, ammonium sulfate (21-0-0) should be applied at t rate of 5 pounds per 1000 square feet with reapplication every 45-60 days. Alternatively, slow release Sulfur Coated Urea (43-0-0) may be applied at 6 pounds per 1000 square feet every 90 days. Once plants are performing satisfactorily, the frequency of fertilization may be decreased depending on color and rate of growth desired. In the winter for a quick greening effect, calcium nitrate (15.5-0-0) may be applied at a 6 pound rate if applicable. Early fall and spring, substitute a complete fertilizer such as 15-15-15 to help insure continuing adequate phosphorus and potassium.

Alternatively, Blood Meal (12-0-0) provides available nitrogen fairly rapidly while materials such as Feather Meal (12-0-0), Soybean or Cotton Seed Meal (7-1-1) are slower to provide available nitrogen, but they extend the length of time they make this contribution. In order to provide a good supply of nitrogen for a 3-4 month time frame a good combination would be 6 pounds Blood Meal and 14 pounds Feather Meal per 1000 square feet. In the fall and spring, substitute a complete organic fertilizer such as 5-5-5 applied at the manufacturer's laxel rate. Or, nutrient rich composted greenwaste may be spread in a 1 to 2 inch layer, which generally carries enough nutrition to boost complete nutrition though a source of nitrogen might also be added at a half rate to assure adequate nitrogen availability.

1101 S Winchester Blvd., Ste. G-173 San Jose, CA 95128
(408) 727-0330 (408) 727-5125 fax
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Paul Huard
Report 18-197-0104 Updated

If we can be of any further assistance, please feel free to contact us.

Annmarie Lucchesi
alucchesi@waypointanalytical.com

Emailed 5 Pages: huard@yahoo.com

1101 S Winchester Blvd., Ste. G-173 San Jose, CA 95128
(408) 727-0330 (408) 727-5125 fax
www.waypointanalytical.com

Paul Huard
350 Sequoia Ave.

Palo Alto CA 94306

Waypoint ANALYTICAL

4741 East Hunter Ave. Suite A
Anaheim, CA 92807
Main 714-282-8777 * Fax 714-282-8575
www.waypointanalytical.com

Project : Huard@Magellan
Half Moon Bay
JOb HMB1

COMPREHENSIVE SOIL ANALYSIS

Report No : 18-197-0104
Purchase Order :
Date Recd : 07/16/2018
Date Printed : 07/20/2018
Page : 1 of 1

Sample Description - Sample ID	Half Sat %	pH	ECe	NO_3-N	NH_4-N	PO_4-P	K	Ca	Mg	Cu	Zn	Mn	Fe	Organic	Lab No.
	TEC	Qual Lime	dS/m	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	% dry wt.	
	Sufficiency Factors														
Site Soil 1-18"	20	7.9	0.9	2	6	6	57	1920	466	1.8	0.7	7	13	1.6	25731
	133	High		0.2		0.2	0.3	0.9	1.6	1.0	0.1	0.4	0.2		

Saturation Extract Values							Gravel %		Percent of Sample Passing 2 mm Screen					USDA Soil Classification	Lab No.
									Sand			Silt	Clay		
Ca meq/L	Mg meq/L	Na meq/L	K meq/L	B ppm	SO_4 meq/L	SAR	Coarse 5 - 12	Fine 2 - 5	Very Coarse 1 - 2	Coarse 0.5 - 1	Med. to Very Fine 0.05 - 0.5	.002-.05	0- .002		
7.1	2.6	2.0	0.3	0.17	9.2	1.2	2.3	9.2	4.2	4.4	19.8	30.6	41.5	Clay	25731

Sufficiency factor (1.0=sufficient for average crop) below each nutrient value. N factor based on 200 ppm constant feed. SAR = Sodium adsorption ratio. Half Saturation %=approx field moisture capacity. Nitrogen(N), Potassium(K), Calcium(Ca) and Magnesium(Mg) by sodium chloride extraction. Phosphorus(P) by sodium bicarbonate extraction. Copper(Cu), Zinc(Zn), Manganese(Mn) & Iron(Fe) by DTPA extraction. Sat. ext. method for salinity (ECe as dS/m),Boron (B), Sulfate(SO 4), Sodium(Na). Gravel fraction expressed as percent by weight of oven-dried sample passing a 12mm(1/2 inch) sieve. Particle sizes in millimeters. Organic percentage determined by Walkley-Black or Loss on Ignition.

* LOW SUFFICIENT HIGH

Landscape Art
Design with nature

SCALE	NO SCALE
DESIGNED BY	AI
DRAWN BY	AI
CHECKED BY	AI
CAD DWG.	Huard Residence_Nov 12.dwg
DATE	Nov, 12/2018
REVISIONS	
#1	Feb,13/2018
#2 - City Review	Aug, 31/2018
#3 - City Review	Jun, 28/2019

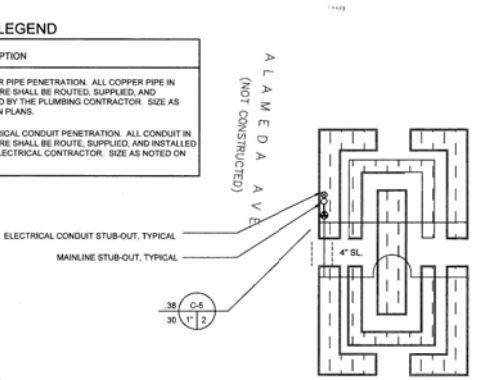
LA-3-D

HUARD RESIDENCE
185 Megellan Avenue - Half Moon Bay - CA

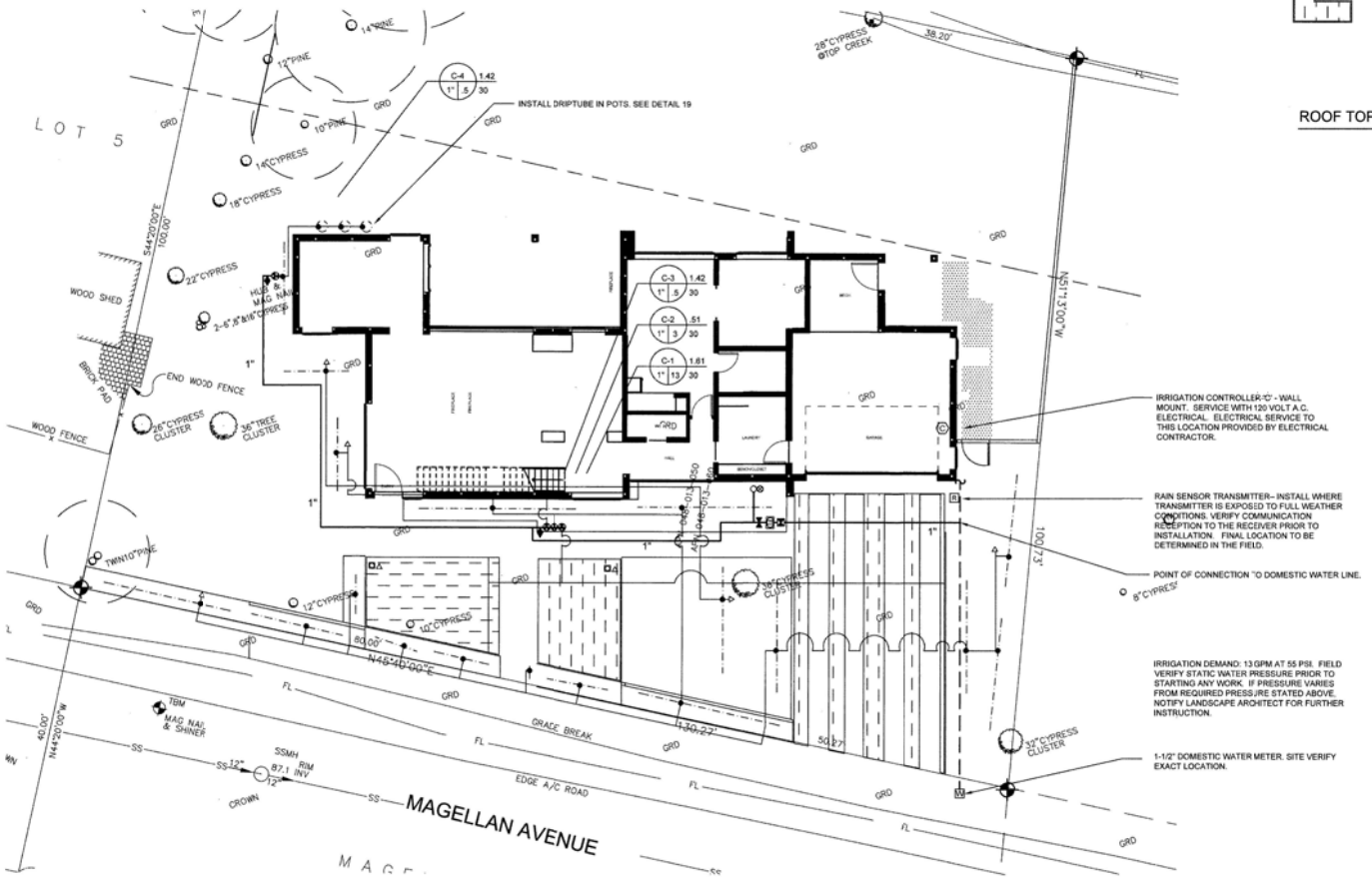
SOIL REPORT AND PREPARATION

COORDINATION LEGEND

SYMBOL	DESCRIPTION
○	1" COPPER PIPE PENETRATION. ALL COPPER PIPE IN STRUCTURE SHALL BE ROUTED, SUPPLIED, AND INSTALLED BY THE PLUMBING CONTRACTOR. SIZE AS NOTED ON PLANS.
●	1" ELECTRICAL CONDUIT PENETRATION. ALL CONDUIT IN STRUCTURE SHALL BE ROUTE, SUPPLIED, AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SIZE AS NOTED ON PLANS.



ROOF TOP IRRIGATION PLAN



BROOKWATER
IRRIGATION CONSULTANTS
480 SAINT JOHN STREET, SUITE 220
PLEASANTON, CALIFORNIA 94566
TEL 925 . 855 . 0417
FAX 925 . 855 . 0357
E-MAIL
JANET@BROOKWATER.COM

STAMP

JANET S. LUSHER
CID
006436

CONSULTANT

HUARD RESIDENCE
185 MAGELLAN AVE.
HALF MOON BAY, CALIFORNIA

ISSUANCE

NO	REVISIONS	DATE

SHEET TITLE

IRRIGATION PLAN

DRAWN BY	CHECKED BY
WM	JL
DATE	SCALE
6/24/19	1" = 8'-0"

JOB NO.

SHEET NO.

IR-1

OF SHEETS

IRRIGATION NOTES

1. THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.

2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO THEIR WORK.

3. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING AND ARCHITECTURAL FEATURES.

4. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER. TRENCHES SHALL BE AMPLE SIZE TO PERMIT THE PIPES TO BE LAID AT THE ELEVATIONS INTENDED AND TO PERMIT SPACE FOR JOINING.

5. CONTRACTOR SHALL RESTORE SURFACES, EXISTING UNDERGROUND INSTALLATIONS, ETC., DAMAGED OR CUT AS A RESULT OF EXCAVATIONS, TO ORIGINAL CONDITIONS IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE.

6. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.

8. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL WORK AND PLAN WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.

9. ELECTRICAL CONTRACTOR TO SUPPLY 120 VAC (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER. IRRIGATION CONTROL WIRE SHALL BE #14, U.L. APPROVED FOR DIRECT BURIAL. COMMON WIRE SHALL BE #12 U.L. APPROVED AND SHALL BE WHITE IN COLOR. WIRING TO INDIVIDUAL REMOTE CONTROL VALVES SHALL BE COLOR OTHER THAN WHITE.

10. EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.

11. REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED. ATTACH A LABEL TO CONTROL WIRE AT THE CONTROLLER AND ATTACH AN ID TAG AT EACH REMOTE CONTROL VALVE INDICATING CONTROLLER AND STATION NUMBER.

12. SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.

13. WIRE CONNECTORS SHALL BE 3M-DBR/Y-6 DIRECT BURY UNLESS OTHERWISE NOTED.

14. INSTALL TWO (2) SPARE CONTROL WIRES ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.

15. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE.

16. INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, LAWN, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.

17. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.

18. LOCATE QUICK COUPLING VALVE 12" FROM HARDSCAPE AREA.

19. THOROUGHLY FLUSH MAIN LINE BEFORE INSTALLING VALVES.

20. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR. FOR DRIP OR BUBBLER CIRCUITS, INSTALL KING BROS. CV SERIES CHECK VALVES IN LATERAL LINES FOR EVERY 10' OF ELEVATION CHANGE.

21. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION, BUBBLERS AND DRIP TUBING. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.

22. NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS/HER INSTRUCTIONS ARE OBTAINED.

23. IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.

24. ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCH AND FREE OF ROCKS AND OTHER FOREIGN COURSE MATERIAL. COMPACT BACKFULL TO A MINIMUM OF 90 PERCENT OF ORIGINAL SOIL DENSITY. REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK.

25. CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.

26. ALL CONSTANT PRESSURE PIPES SHALL BE TESTED AT A MINIMUM OF 125 PSI FOR TWO HOURS. CENTER LOAD PIPING WITH A SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURE. NO FITTINGS SHALL BE COVERED. REPAIR FAULTY JOINTS WITH NEW MATERIALS. DO NOT USE CEMENT OR CAULKING TO REPAIR LEAKS.

27. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES, AND TREE ROOTS. EXCAVATION IN AREAS WHERE 2 INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ROOTS 2 INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN A PLASTIC BAG AND SECURED WITH A RUBBER BAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN 24 HOURS; WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.

28. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

29. IRRIGATION DEMAND: REFER TO IRRIGATION POINTS OF CONNECTION.

30. OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.

31. NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

32. NOTIFY UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

33. AT LEAST 10 DAYS PRIOR TO COMPLETION OF CONSTRUCTION, PROVIDE THE OWNER WITH A MAINTENANCE MANUAL. DATA SHALL BE ON 8 1/2" X 11" SHEETS, IN A 3-RING BINDER AND SHALL INCLUDE:
- INDEX SHEET WITH CONTRACTOR'S CONTACT INFORMATION AND LIST OF EQUIPMENT WITH LOCAL MANUFACTURER'S REPRESENTATIVES.
- CATALOG AND PARTS SHEET OF ALL MATERIAL AND EQUIPMENT.
- COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT.
- COMPLETE AND DATED MANUFACTURER'S WARRANTIES.

35. AT COMPLETION OF MAINTENANCE PERIOD, PROVIDE OWNER WITH THREE (3) EACH OF ALL OPERATING AND SERVICING KEYS AND WRENCHES REQUIRED FOR COMPLETE MAINTENANCE AND OPERATION OF ALL HEADS AND VALVES. PROVIDE TWO (2) EACH OF KEYS AND HOSE SWIVELS FOR QUICK COUPLERS AND KEYS TO CONTROLLER CABINETS.

36. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.

37. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.

38. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

39. AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	FLOW RATE (GPM)	DETAIL #
NOT SHOWN	T-DPC04-DC, T-DPC02-DC	TORO NGE SINGLE OUTLET EMITTER	40	1 GPH, 1/2 GPH	15
●	-	COMPRESSION FITTING STUB-OUT FROM PVC RIGID PIPE TO POLY TUBING			14
△	T-FCH-H-FIPT	TORO DL2000 FLUSH VALVE			12
NOT SHOWN	T-YD-500-34	TORO DL2000 AIR VENT			13
◘	T-DL-MP9	TORO DL2000 POP-UP OPERATION INDICATOR			11
	DZK-700 / LT-1000-T	TORO DRIP ZONE VALVE KIT - INCL. REMOTE CONTROL VALVE, WYE FILTER WITH 150 MESH SCREEN, AND PRESET PRESSURE REGULATOR / NDS SCH 80 PVC BALL VALVE			3
	100-2SLLVC/075-MHS	TORO QUICK COUPLING VALVE WITH 3/4" HOSE SWIVEL			8
	T-113-LF	NIBCO LEAD FREE GATE VALVE (LINE SIZE)			7
EZ	EZ001CX-CBV-100	EZ-FLO FERTILIZER INJECTOR. INSTALL IN 15"x10"x12" VALVE BOX			18
	975XL2-1"	WILKINS LEAD-FREE REDUCED PRESSURE BACKFLOW PREVENTER			1
R	WR-CLIK	HUNTER RAIN SENSOR			10
C	HUNTER HC1200-I	HUNTER 12 STATION WIFI CONTROLLER			2
C-1 / 1" / 15 / 1.6 / 30		CONTROLLER AND STATION NUMBER APPLICATION RATE (INCHES) OPERATING PRESSURE (PSI) APPROXIMATE GALLONS PER MINUTE REMOTE CONTROL VALVE SIZE			
		MAIN LINE: 1120-SCHEDULE 40 PVC SOLVENT WELD PLASTIC PIPE WITH SCHEDULE 80 AND SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.			
		LATERAL LINE: 1120-CLASS 200 PSI PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.			
		DRIP TUBING: TORO T-EHD1645 BLUE STRIPE HOSE WITH TORO LOC-EZE FITTINGS. 4" COVER. DISTRIBUTION TUBING: TORO EHW0437-010 1/4" HOSE.			
		SUB-SURFACE DRIPLINE: TORO DL2000 RGP-212-10 DRIPLINE WITH ROOT GUARD. USE ONLY D.2000 DRIPLINE TRI-LOC FITTINGS. 2" COVER. (12" EMITTER SPACING; 1 GPH PER EMITTER)			
		SLEEVE (SL): 1120-CLASS 200 PVC PLASTIC PIPE. 24" COVER.			

DRIP IRRIGATION NOTES

1. THE CONTRACTOR SHALL PROVIDE A DRIP EMITTER SYSTEM FOR ALL TREES, SHRUBS, AND GROUNDCOVER AS INDICATED ON THE IRRIGATION PLAN AND DETAILS.

2. EMITTERS ARE NOT SHOWN ON THE IRRIGATION PLAN. ACTUAL LAYOUT OF EMITTER SYSTEM SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD USING THE IRRIGATION PLAN AND THE DRIP IRRIGATION DETAILS AS A GUIDE, WHILE USING THE PLANTING PLAN FOR THE LOCATION AND QUANTITIES OF EMITTERS.

3. EACH 15 GALLON SHRUB SHALL RECEIVE THREE 1 GPH EMITTERS DISTRIBUTED EVENLY AROUND SHRUB (TWO SHALL BE ON UPHILL SIDE OF SHRUB), VIA DISTRIBUTION TUBING. REFER TO THE PLANTING PLAN FOR THE LOCATION AND QUANTITY OF SHRUBS.

4. EACH 5 GALLON SHRUB SHALL RECEIVE TWO 1 GPH EMITTERS ON OPPOSITE SIDES AND UPHILL OF SHRUB, VIA DISTRIBUTION TUBING. REFER TO THE PLANTING PLAN FOR THE LOCATION AND QUANTITY OF SHRUBS.

5. EACH 1 GALLON SHRUB SHALL RECEIVE TWO 1/2 GPH EMITTERS ON OPPOSITE SIDES AND UPHILL OF SHRUB, VIA DISTRIBUTION TUBING. REFER TO THE PLANTING PLAN FOR THE LOCATION AND QUANTITY OF SHRUBS.

6. INSTALL THE EMITTERS ON TOP OF THE ROOT BALL AND AS FAR FROM THE TRUNK OF THE PLANT AS POSSIBLE.

7. DISTRIBUTION TUBING SHALL BE A MAXIMUM OF 5' IN LENGTH FROM ½" TUBING TO EMITTER. EACH LENGTH OF 1/2" DRIP TUBING SHALL BE A MAXIMUM OF 25'.

8. INSTALL FLUSH VALVES AT THE END OF THE RIGID PVC AS SHOWN ON PLANS.

9. ALL PVC LATERAL PIPE TO DRIP TUBING SHALL BE 3/4" UNLESS OTHERWISE NOTED.

10. THE DRIP EMITTER SYSTEM LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION AND AFTER PLANTING HAS BEEN COMPLETED.

DRIPLINE NOTES

1. PLANS ARE DIAGRAMMATIC. INSTALL DRIPLINE AND COMPONENTS PER MANUFACTURERS INSTRUCTIONS AND INSTALLATION DETAILS.

2. INSTALL DRIPLINE A MAXIMUM OF 12" APART WITH EMITTERS TRIANGULARLY SPACED. INSTALL 2" FROM PERIMETER OF PLANTED AREA. THERE SHOULD BE A MINIMUM OF TWO DRIPLINE LATERALS IN EACH PLANTED AREA. DRIPLINE SHALL BE INSTALLED AT A CONSISTANT DEPTH THROUGHOUT THE CIRCUIT.

3. PLACE AIR/VACUUM RELIEF VALVES AT THE HIGHEST POINTS OF EACH ZONE AND JUST BELOW CHECK VALVES ON SLOPES. INSTALL ONE AIR/VACUUM RELIEF VALVE FOR EVERY 390' OF TOTAL DRIPLINE PER ZONE.

4. PLACE FLUSH VALVES AT THE HYDRAULIC CENTER OF THE EXHAUST HEADER OR AT LOW POINT ON SLOPES. INSTALL MINIMUM OF ONE FOR EVERY 15 GPM.

5. INSTALL IN-LINE CHECK VALVES ON SLOPES GREATER THAN 3% AND WHERE LOW-LINE DRAINAGE COULD CAUSE WET AREAS IN THE LOWEST AREAS OF AN IRRIGATION ZONE. CHECK VALVES SHALL BE PLACED EVERY 4-5 FEET BETWEEN DRIPLINE LATERALS AND BEFORE THE FLUSH VALVE.

6. ON ALL SLOPES AND MOUNDS, PLACE THE DRIPLINE LATERALS PARALLEL TO THE SLOPE CONTOUR WHERE POSSIBLE. INCREASE THE LATERAL SPACING BY 25% ON THE LOWER ONE-THIRD OF THE SLOPE TO AVOID EXCESS DRAINAGE.

7. PVC SUPPLY AND FLUSH LINE SIZING GUIDE (ALL SUPPLY AND FLUSH LINES SHALL BE THE SAME SIZE FOR THE ENTIRE ZONE):
- 0-8 GPM – 3/4"
- 8.1-15 GPM – 1"
- 15.1-25 GPM – 1 1/4"

8. FITTINGS SHALL BE OF THE SAME MANUFACTURER AS DRIPLINE.

9. STAPLE DRIPLINE TO GROUND EVERY 3 FEET. USE ADDITIONAL STAPLES OVER EACH TEE, ELBOW OR CROSS. USE U-SHAPED STAPLES TO AVOID PINCHING THE DRIPLINE.

10. THOROUGHLY FLUSH EACH INSTALLATION SEGMENT TO ENSURE NO DEBRIS CONTAMINATION OCCURS.

11. IN TURF OR NOW-MOW GRASS AREAS, A TEMPORARY OVERHEAD SPRAY SYSTEM WILL NEED TO BE PROVIDED UNTIL THE TURF SEED OR SOD IS ESTABLISHED. OVERHEAD WATERING CAN BE DISCONTINUED WHEN EDGES OF THE SOD CANNOT BE PULLED UP. RUN THE DRIPLINE SYSTEM SEVERAL TIMES DAILY IN ADDITION TO THE TEMPORARY OVERHEAD SYSTEM.

12. RUN THE DRIPLINE SYSTEM EVERY DAY OR EVERY OTHER DAY TO ESTABLISH PLANT MATERIAL. MAINTAIN A CONSISTENT MOISTURE BALANCE IN THE SOIL. IT IS IMPORTANT TO KEEP THE SOIL MOIST WITHOUT SATURATION.

BROOKWATER
IRRIGATION CONSULTANTS
480 SAINT JOHN STREET, SUITE 220
PLEASANTON, CALIFORNIA 94566
TEL. 925 . 855 . 0417
FAX. 925 . 855 . 0307
E-MAIL
JANET@BROOKWATER.COM

STAMP

JANET S. LUSHER — CID — 006496

CONSULTANT

HUARD RESIDENCE
185 MAGELLAN AVE.
HALF MOON BAY, CALIFORNIA

ISSUANCE

NO	REVISIONS	DATE

SHEET TITLE

IRRIGATION NOTES AND LEGEND

DRAWN BY	CHECKED BY
WM	JL
DATE	SCALE
6/24/19	N/A

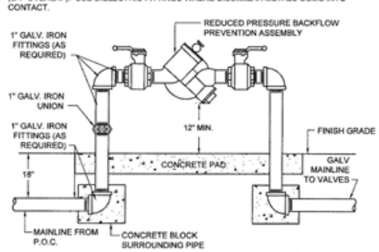
JOB NO.

SHEET NO.

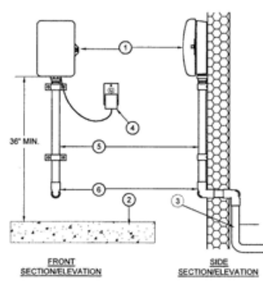
IR-2

OF SHEETS

NOTE: EVENLY COAT METAL FITTINGS EXPOSED TO SOIL AND CONCRETE WITH 3M SCOTCHRAP PIPE PRIMER AND THEN WRAP WITH 3M SCOTCHRAP NO. 51 BLACK TAPE (3/4" OVERLAP). USE DIELECTRIC FITTINGS WHERE DISSIMILAR METALS COME INTO CONTACT.



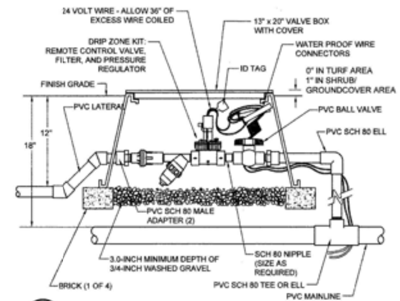
1 REDUCED PRESSURE BACKFLOW ASSEMBLY
NOT TO SCALE



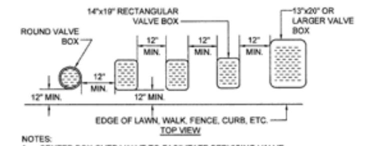
1. WALL MOUNT AUTOMATIC SPRINKLER CONTROLLER (INTERIOR WALL MOUNT WITH EXTERNAL TRANSFORMER)
2. INTERIOR FLOOR OF GARAGE
3. PVC SWEEP ELL FOR CONTROL WIRES
4. EXTERNAL PLUG-IN TRANSFORMER (PROVIDED WITH CONTROLLER)
5. 2" PVC SCHEDULE 40 CONTROL WIRE CONDUIT
6. PVC SCHEDULE 80 FITTINGS THROUGH WALL. DRILL THROUGH SHEETROCK AND WALL SIDING FOR INSTALLATION OF CONDUIT. USE EXPANDING INSULATION FOAM TO SEAL CONDUIT AT INTERIOR AND EXTERIOR WALL.

NOTE: ALL ELECTRICAL WORK MUST CONFORM TO LOCAL CODES. REFER TO PRODUCT LITERATURE FOR ADDITIONAL INSTALLATION REQUIREMENTS.

2 RESIDENTIAL CONTROLLER - INDOOR.
NOT TO SCALE

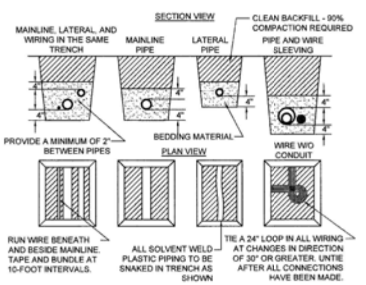


3 TORO DRIP ZONE KIT
NOT TO SCALE



NOTES:
1. CENTER BOX OVER VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER/SHRUB AREA DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. VALVE BOXES SHALL HAVE BOLT DOWN LIDS WITH BOLTS INSTALLED.
7. VALVE BOXES SHALL BE BY NDS, CARSON, OR EQUAL.

4 VALVE BOX INSTALLATION DETAIL
NOT TO SCALE



NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SPECIFIED PVC PIPE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS REFER TO IRRIGATION LEGEND AND SPECIFICATIONS.

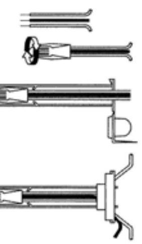
5 PIPE AND WIRE TRENCHING
NOT TO SCALE

STEP 1: STRIP WIRES 1/2" FROM ENDS.

STEP 2: APPLY SCOTCHLOK Y SPRING CONNECTOR IN A CLOCKWISE DIRECTION.

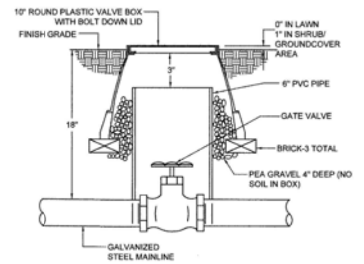
STEP 3: INSERT SPLICE TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT BOTTOM OF TUBE.

STEP 4: POSITION WIRES IN WIRE CHANNELS AND CLOSE INSULATOR TUBE COVER.

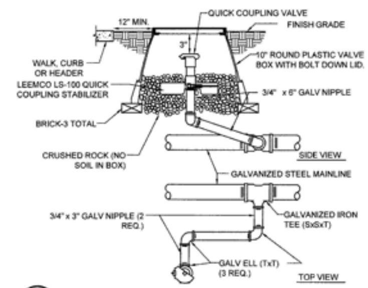


NOTE: MAXIMUM WIRE SIZES PER CONNECTOR ARE THREE # 14'S OR TWO #12'S.

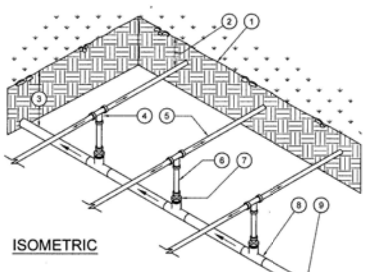
6 WIRE CONNECTION DETAIL
NOT TO SCALE



7 GATE VALVE DETAIL
NOT TO SCALE

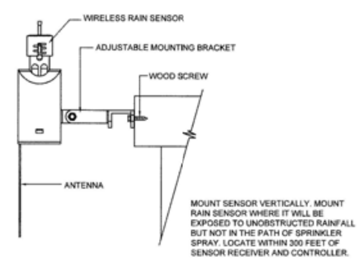


8 QUICK COUPLER IN BOX DETAIL
NOT TO SCALE



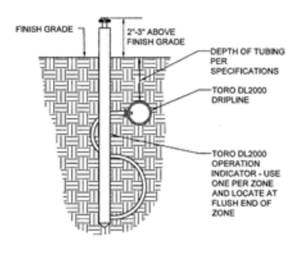
LEGEND
1. FINISH GRADE.
2. DEPTH OF TUBING PER SPECIFICATIONS
3. DEPTH OF PVC SUPPLY MANIFOLD PER SPECIFICATIONS.
4. DRIPLINE TEE FITTING.
5. DRIPLINE LATERAL.
6. BLANK POLY TUBING, LENGTH AS NECESSARY.
7. DRIPLINE MPT ADAPTER.
8. PVC TEE (SxSxT) WITH 1/2" FPT OUTLET.
9. PVC SUPPLY MANIFOLD FROM REMOTE CONTROL VALVE ASSEMBLY.

9 CENTER FEED MANIFOLD
NOT TO SCALE

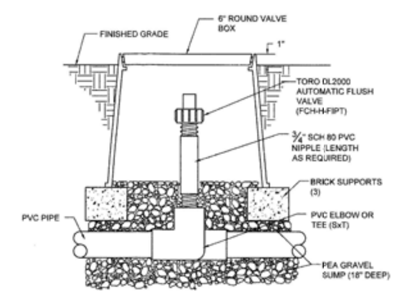


MOUNT SENSOR VERTICALLY. MOUNT RAIN SENSOR WHERE IT WILL BE EXPOSED TO UNOBSTRUCTED RAINFALL BUT NOT IN THE PATH OF SPRINKLER SPRAY. LOCATE WITHIN 300 FEET OF SENSOR RECEIVER AND CONTROLLER.

10 WIRELESS RAIN SENSOR INSTALLATION DETAIL
NOT TO SCALE



11 TORO DL2000 OPERATION INDICATOR
NOT TO SCALE



12 TORO DL2000 AUTOMATIC FLUSH VALVE - PLUMBED TO PVC
NOT TO SCALE

BROOKWATER
IRRIGATION CONSULTANTS
480 SAINT JOHN STREET, SUITE 220
PLEASANTON, CALIFORNIA 94566
TEL 925 . 833 . 0417
FAX 925 . 833 . 0207
E-MAIL
JANET@BROOKWATER.COM

STAMP

JANET S. LUEHRS CID 00436

CONSULTANT

HUARD RESIDENCE
185 MAGELLAN AVE.
HALF MOON BAY, CALIFORNIA

ISSUANCE

NO	REVISIONS	DATE

SHEET TITLE

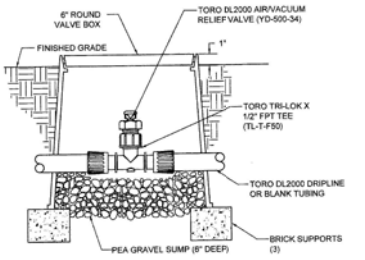
IRRIGATION DETAILS

DRAWN BY WM	CHECKED BY JL
DATE 6/24/19	SCALE AS SHOWN
JOB NO.	

SHEET NO.

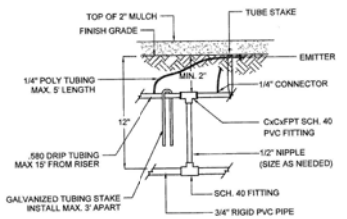
IR-3

OF SHEETS

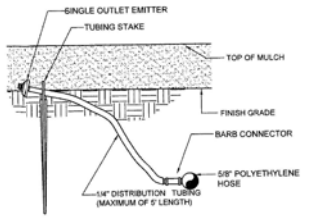


NOTE:
AIR/VACUUM RELIEF VALVE CANNOT BE CONNECTED LOWER THAN DRIPLINE LATERALS.

13 TORO DL2000 AIR/VACUUM RELIEF VALVE - PLUMBED TO TUBING
NOT TO SCALE

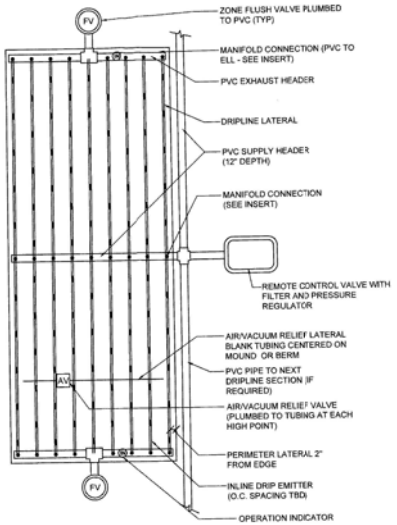


14 RISER TO DRIP TUBING DETAIL
NOT TO SCALE

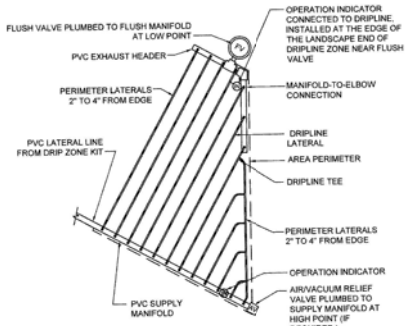


NOTE:
1. CONNECT 5/8" TUBE TO PVC LATERAL LINE USING COMPRESSION FITTINGS.
2. 5/8" HOSE SHALL NOT RUN LONGER THAN 20' FROM PVC LATERAL LINE.

15 SINGLE OUTLET EMITTER DETAIL
NOT TO SCALE

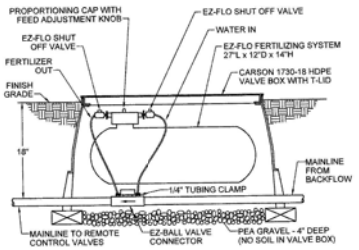


16 CENTER FEED INLINE DRIP LAYOUT
NOT TO SCALE



PLAN

17 TYPICAL ISLAND LAYOUT END FEED
NOT TO SCALE



NOTE: EZ-FLO FERTILIZING SYSTEM TO BE INSTALLED ADJACENT TO MAINLINE. CONTRACTOR TO ENSURE EZ-BALL CONNECTOR IS ACCESSIBLE WITHIN VALVE BOX FOR MAINTENANCE.

18 EZ-FLO FERTILIZING SYSTEM (EZ001CX-CBV)
NOT TO SCALE

CITY OF
HALF MOON BAY
LANDSCAPE WATER USE STATEMENT

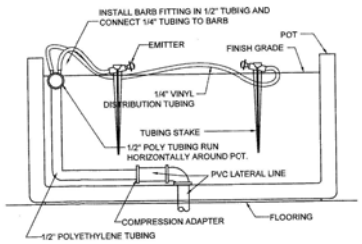
PROJECT NAME: HUARD RESIDENCE
PROJECT ADDRESS: 185 MEGELLAN AVE.

PREPARED BY: JANET LUEHRS (CID, CLIA #43274)
BROOKWATER INC., IRRIGATION CONSULTANTS
480 SAINT JOHN STREET, SUITE 220
PLEASANTON, CA 94566
925-855-0417
925-855-0357 (FAX)
Janet@brookwater.com (e-mail)

"I have complied with the criteria of the Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."

Signed: Janet Luehrs

PART ONE	**MAXIMUM APPLIED WATER ALLOWANCE (MAWA)**	
	MAWA = ETo x .62 x [(ETAFx HA) + ((1-ETAF) x SLA)]	
	YEARLY ETo	33.7
	CONVERSION FACTOR	0.62
	ETAF	0.55
	TOTAL IRRIGATED LANDSCAPE AREA (HA)	1,911 SQUARE FEET
	SPECIAL LANDSCAPE AREA (SLA)	0 SQUARE FEET
	LANDSCAPE WATER ALLOWANCE	**21,961 GALLONS PER YEAR**
	TOTAL ACRE FEET	0.07 ACRE FEET
PART TWO	**ESTIMATED TOTAL WATER USE (ETWU)**	
	(AVERAGE ETAF AND ETWU FROM WATER EFFICIENT LANDSCAPE WORKSHEET)	
	AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS (TOTAL ETAF x AREA / TOTAL AREA)	0.40
	ETWU FOR REGULAR LANDSCAPE AREAS	**15,897 GALLONS PER YEAR**
	SITE WIDE ETAF	0.40
	ETWU FOR ALL LANDSCAPE AREAS	**15,897 GALLONS PER YEAR**
	TOTAL ACRE FEET	0.05 ACRE FEET



19 DRIP TO POT DETAIL
NOT TO SCALE

HYDROZONE SUMMARY

*Hydrozone Description	Total Sq. Ft.	% of Landscape
Cool Season Turf (CST)	0	0.0%
Warm Season Turf (WST)	0	0.0%
High Water Use Plants (HW)	0	0.0%
Bioretention Plants (BR)	0	0.0%
Medium Water Use Plants (MW)	215	11.3%
Low Water Use Plants (LW)	1,696	88.7%
Very Low Water Use Plants (VLW)	0	0.0%
Water Feature	0	0.0%
Special Landscape Area (SLA)	0	0.0%
TOTAL	1,911	100.0%

**Irrigation Method	Total Sq. Ft.	% of Landscape
Rotor (FC-R, PC-R)	0	0.0%
Multi-Stream Rotator (MR)	0	0.0%
Spray (S)	0	0.0%
Bubbler (B)	0	0.0%
Drip (D)	810	42.4%
In-Line Drip (DL)	1,101	57.6%
Micro Spray (MS)	0	0.0%
Other (O)	0	0.0%

HUARD RESIDENCE
WATER EFFICIENT LANDSCAPE WORKSHEET

Reference Evapotranspiration (Eto) 33.7

ZONE NO.	PLANT TYPE	HYDROZONE* (PLANT WATER USE)	PLANT FACTOR (PF)	IRRIGATION METHOD**	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	HYDROZONE AREA (HA) (Sq Ft)	ETAF x HA	ESTIMATED TOTAL WATER USE (ETWU)	% LANDSCAPE AREA
REGULAR LANDSCAPE AREA										
C-1	NO MOW	LW	0.30	DL	0.81	0.37	729	270	5,641	38.1%
C-2	SHRUB	LW	0.30	D	0.81	0.37	561	208	4,341	29.4%
C-3	SHRUB	MW	0.50	D	0.81	0.62	215	133	2,773	11.3%
C-4	SHRUB	LW	0.30	D	0.81	0.37	34	13	263	1.8%
C-5	SHRUB	LW	0.30	DL	0.81	0.37	372	136	2,879	19.5%
TOTALS (REGULAR LANDSCAPE AREAS)							1,911	761	15,897	100.0%
SPECIAL LANDSCAPE AREA										
	0			0		1.00	0	0	0	0.0%
TOTALS (SPECIAL LANDSCAPE AREAS)							0	0	0	0.0%
TOTALS FOR ALL AREAS							***1,911***	***761***	***15,897***	***100%***

BROOKWATER
IRRIGATION CONSULTANTS
480 SAINT JOHN STREET, SUITE 220
PLEASANTON, CALIFORNIA 94566
TEL 925 . 855 . 0417
FAX 925 . 855 . 0357
E-MAIL
JANET@BROOKWATER.COM

STAMP

JANET S. LUEHRS CID 004435

CONSULTANT

HUARD RESIDENCE
185 MAGELLAN AVE.
HALF MOON BAY, CALIFORNIA

ISSUANCE

NO	REVISIONS	DATE

SHEET TITLE

IRRIGATION DETAILS AND WORKSHEETS

DRAWN BY	CHECKED BY
WM	JL
DATE	SCALE
6/24/19	AS SHOWN

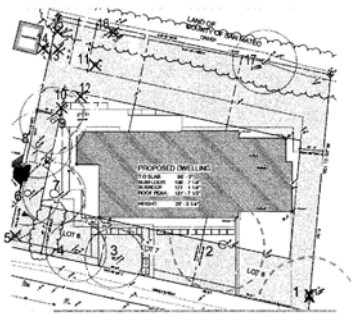
JOB NO.

SHEET NO.

IR-4

OF SHEETS

Tree Preservation Plan



Scale: 1"=20'-0"

Legend

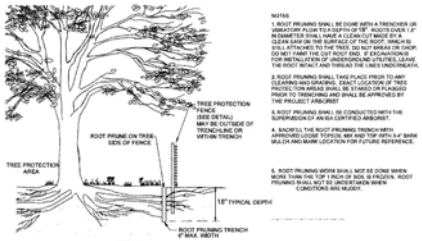
Critical Root Zone = Retained Canopy

Species = Refer to list

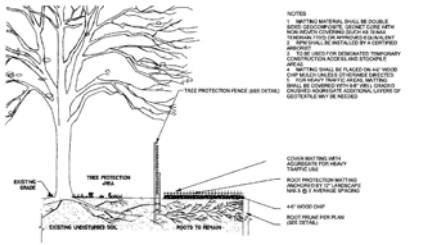
Retained Canopy

Removal

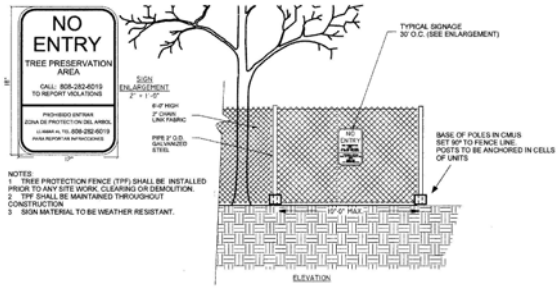
Tree Protection



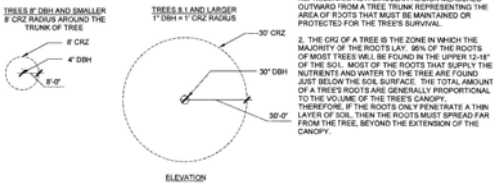
ROOT PRUNING N.T.S.



TEMPORARY ROOT PROTECTION MATTING WITHIN CRZ NOT TO SCALE



6 CHAIN LINK TREE PROTECTION FENCE (RESIDENTIAL) 1/2" = NOT TO SCALE



1. GRAPHICALLY, THE CRITICAL ROOT ZONE (CRZ) IS REPRESENTED AS A CIRCULAR REGION MEASURED OUTWARD FROM A TREE TRUNK REPRESENTING THE AREA OF ROOTS THAT MUST BE MAINTAINED OR PROTECTED FOR THE TREE'S SURVIVAL.

2. THE CRZ OF A TREE IS THE ZONE IN WHICH THE MAJORITY OF THE ROOTS LAY. 95% OF THE ROOTS OF MOST TREES WILL BE FOUND IN THE UPPER 12-18" OF THE SOIL. MOST OF THE ROOTS THAT SUPPLY THE NUTRIENTS AND WATER TO THE TREE ARE FOUND JUST BELOW THE SOIL SURFACE. THE TOTAL AMOUNT OF A TREE'S ROOTS ARE GENERALLY PROPORTIONAL TO THE VOLUME OF THE TREE'S CANOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE EXTENSION OF THE CANOPY.

Tree condition rating is based on 50-percent vitality and 50-percent form, using the following scale.

1 - 29 Very Poor
30 - 49 Poor
50 - 69 Fair
70 - 89 Good
90 - 100 Excellent

#	Species	Trunk Diameter (in)	Canopy (ft)	Height (ft)	Condition	Heritage	Significant	Retain/ Remove
1	Monterey Cypress	50"	48'	38'	good	no	yes	retain
2	Monterey Cypress	45"	39'	36'	good	no	yes	retain
3	Monterey Cypress	23"	30'	36'	good	no	yes	retain
4	Monterey Cypress	25"	24'	38'	good	no	yes	retain
5	Monterey Pine	14"+11"	14'	30'	poor	no	yes	remove
6	Monterey Cypress	39"	48'	44'	fair	no	yes	retain
7	Monterey Cypress	25"	33'	44'	fair	no	yes	retain
8	Monterey Cypress	28"	34'	46'	fair	no	yes	retain
9	Monterey Cypress	26"	48'	46'	fair	no	yes	retain
10	Monterey Pine	14"	20'	22'	dead	no	no	remove
11	Monterey Pine	17"	18'	40'	poor	no	yes	remove
12	Monterey Pine	15"	15'	22'	dead	no	yes	remove
13	Myoporum	5"+4"+3"+4"	15'	16'	poor	no	no	remove
14	Monterey Pine	19"	22'	32'	poor	no	yes	remove
15	Myoporum	4"+3"+4"+4"	15'	12'	poor	no	no	remove
16	Monterey Cypress	31"	26'	32'	dead	no	no	remove
17	Monterey Cypress	35"	52'	42'	good	no	yes	retain

Tree Protection Plan

The Project Arborist will determine the configuration of the tree protection zones, but the general rules follow. Tree protection zones should be established and maintained throughout the entire length of the project. Fencing for the protection zones should be 6 foot tall metal chain link supported by cinder blocks. The support poles should be spaced no more than 10 feet apart on center. The location for the protection fencing should be as close to the dripline as possible still allowing room for construction to safely continue. Signs should be placed on fencing signifying "Tree Protection Zone - Keep Out". No materials or equipment should be stored or cleaned inside the tree protection zones. Areas outside the fencing but still beneath the dripline of protected trees, where foot traffic is expected to be heavy, should be mulched with 4 to 6 inches of chipper chips. No neighboring trees will be affected or have work performed within 4 times the trees' DBH measured at 48 inches above ground level.

Contractor Responsibilities

The general contractor is responsible for contacting the Project Arborist in a timely manner to have the Project Arborist review all work performed within the dripline of protected trees. No self-propelled equipment may enter the dripline of trees. The Project Arborist is to monitor work within the dripline of trees. The Tree Protection Plan is to be included on full size sheets of the construction plans.

Installation of Driveways

The driveway is within the tree protection zone of Tree #1 and #2. Prior to construction of the driveway, both Tree #1 and Tree #2 will be protected per the general guidelines above. After construction of the home and during construction of the driveway, the tree protection zone will be adjusted to allow driveway construction. To ensure protection of trees 1 and 2, the project arborist will be on site for excavation and ensure: 1) that the fenced portion of tree protection zone areas is adjusted to allow construction of the drive way and 2) those areas that are not fenced and not directly within the perimeter of the driveway are protected with 6 inches of mulch and either steel plates or 1 inch thick plywood during the driveway construction period. The excavation of the driveway within the root zone (10xDBH) of a protected tree will be covered with Geo-Grid fabric with compatible base-rock. Paving material should be porous.
A certified arborist will monitor raising the canopy of Tree #1 and #2 to a height of 8'. In addition, Tree #1 and Tree #2 willbe thinned to ensure they are not top heavy. Trimming will also compensate for the branches that have been cut from the Magellan Ave side of the tree by another entity - presumably the county trims Tree #1 and Tree #2 so that branches do not break off and fall onto Magellan Ave. If the County requires removal of Tree #1 or Tree #2 the owner will comply, but the owner's hope is that these protection measures will ensure that Tree #1 and Tree #2 continue as visible trees and need not be removed.

Trenching

Trenching for irrigation, electrical, drainage or any other reason should be dug with care when beneath the driplines of protected trees. Carefully laying pipes below or beside protected roots will dramatically reduce root loss of desired trees thus reducing trauma to the entire tree. Trenches should be backfilled as soon as possible with native material and compacted to near its original level. Trenches that must be left exposed for a period of time should also be covered with layers of burlap or straw wattle and kept moist. Plywood over the top of the trench will also help protect exposed roots below. All work within the dripline of protected trees is to be done with care.

Irrigation

Normal, natural, irrigation should be maintained throughout the entire length of the project. Some irrigation may be required during the dry months depending on the seasonal rainfall. However, all living trees are naturally occurring and thriving with no previous human intervention. Mulching the root zone of protected trees will help the soil retain moisture, thus reducing water consumption. The Project Arborist is to determine the irrigation schedule for protected trees. The general contractor is expected to apply supplemental water at the direction of the Project Arborist.

Tree Trimming

Prior to the commencement of construction operations, clearance pruning of protected trees is to be properly completed. All trimming will be carried out within ANSI standards and Best Management Practices. The Project Arborist will supervise any tree trimming on site. Ornamental trimming will be done during the landscape phase of the project. The Project Arborist will inspect all trimming. Al tree trimming will adhere to ANSI 300 standards and Best Management Practices and City of San Mateo ordinances.

Pre-Construction Requirements

Prior to the commencement of demolition or construction operations, all appropriate tree protection measures are to be properly implemented and inspected by the Project Arborist. Prior to the issuance of demolition permits, the Project Arborist is to submit a letter by fax or email to the city planner assigned to this project verifying that all tree protection measures are properly implemented and clearance pruning of the trees has been completed. Monthly inspections by the Project Arborist are required for a site such as this.

Inspection Schedule

The Project Arborist will inspect the tree protection measures and tree trimming prior to the start of construction. The Project Arborist will conduct inspections of the site as required by the city of San Mateo. Inspections will include an inspection letter provided for the owner, contractor and city arborist. The information included in this report is believed to be true and based on sound arboricultural principles and practices.

DATE	REVISION	BY	MO

PROJECT

HUARD - RESIDENCE

17-887

185, MAGELLAN AVENUE
MIRAMAR, CALIFORNIA ,94019

DRAWING TITLE	DRAWN BY
	CHECK BY: Checker
SCEAU	DATE: 2019/07/02
	SCALE
	REVISION
	PAGE: TP-1

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
455 County Center, 2nd Floor
Redwood City, CA 94063
650-363-4161 T
650-363-4849 F
www.planning.smcgov.org

January 15, 2020

Mackenzie Ott
Bone Structure
156 - 2nd Street
San Francisco, CA 94105

Dear Ms. Ott:

SUBJECT: Coastside Design Review Recommendation of Approval
Magellan Avenue, Miramar
APN 048-013-920; County File No. PLN 2018-00154

At its meeting of November 14, 2019, the San Mateo County Coastside Design Review Committee (CDRC) considered your application for a design review recommendation to allow construction of a new two-story, 4,350 sq. ft. residence, plus a 484 sq. ft. garage, and a 521 sq. ft. second unit located on a legal 12,424 sq. ft. parcel (legality confirmed via Certificate of Compliance: PLN 2010-00154) associated with a hearing-level Coastal Development Permit (CDP). The CDP is appealable to the California Coastal Commission. Two significant trees are proposed for removal. One of the two trees (Monterey cypress) proposed for removal is jointly owned with the County of San Mateo. Only minor grading is proposed. The second dwelling unit is a ministerial project that did not require review by the Coastside Design Review Committee. The appropriate environmental review document as required by CEQA will be completed prior to a hearing-level decision. The Planning Commission may require compliance with mitigation measures in addition to conditions listed in this letter.

Based on the plans, application forms and accompanying materials submitted, the Coastside Design Review Committee recommended approval of your project based on and subject to the following findings and recommended conditions:

RECOMMENDED FINDINGS

The Coastside Design Review Committee found that:

1. For the Design Review

   The project, as proposed and conditioned, has been reviewed 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 Zoning Regulations, specifically elaborated as follows:

a. *Section 6565.20 (D) ELEMENTS OF DESIGN; 1. Building Mass, Shape and Scale; Neighborhood Scale: The scale of the house is proportional and complimentary to other homes in the neighborhood.*

b. *Section 6565.20 (D) ELEMENTS OF DESIGN; 4. Exterior Materials and Colors: The exterior materials and colors complement the style of the house and the neighborhood.*

c. *Section 6565.20 (F) LANDSCAPING, PAVED AREAS, FENCES, LIGHTING AND NOISE; 1. Landscaping: The landscape design has been sensitively thought out with the utilization of drought tolerant plants.*

RECOMMENDED CONDITIONS

Current Planning Section

1. The project shall be constructed in compliance with the plans once approved by the Planning Commission and as reviewed by the Coastside Design Review Committee on November 14, 2019. 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 the 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 applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee:

   a. Plant one (1) 24-inch box evergreen tree on the east side of the driveway near Magellan Avenue as replacement for the removal of existing Cypress tree located at the entrance to Mirada Surf Beach adjacent to the property that is jointly owned by the property owner and the County of San Mateo.

   b. Plant twenty-four (24) 5-gallon shrubs that would grow to a minimum height of 6 feet in an alternating pattern to create a natural fence on the west side of the property.

   c. Protect and do not remove the existing Myoporum shrubs along the edge of the west border of the site.

   d. Place the mailbox as shown on the artistic renderings and replace the stucco with (T1) porcelain tile as shown on the materials/finishes board.

e. On the lighting plans, replace the F4 lighting in the rear outside patio with a domed light facing downward.

f. Add 3 ceiling recessed lights (between gridlines J & O) on the rear entrance on the rear elevation.

g. Use stamped or textured stucco and soften color from white to a more earthen tone to blend with the (T1) porcelain tile.

h. Keep the front fence with a horizontal design, 50% open slats, and composite wood or painted steel (painted to match the composite wood siding).

i. Pervious materials shall be used throughout the landscaped areas and outdoor patios.

3. 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.

4. 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.

5. 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.

6. All new power and telephone utility lines 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 Department of Public Works, the Coastside Fire Protection District, the Coastside County Water District, and the Granada Community Services District.

8. No site disturbance shall occur, including any tree/vegetation removal or grading, until a building permit has been issued.

9. 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 Magellan Avenue or the entrance to Mirada Surf Beach adjacent to the property. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on Magellan Avenue or the entrance to Mirada Surf Beach adjacent to

the property. There shall be no storage of construction vehicles in the public right-of-way or the entrance to Mirada Surf Beach adjacent to the property.

10. The exterior colors and materials as conditioned by 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.

11. 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).

12. At the building permit application stage, the project shall demonstrate compliance with the Performance Approach of the Water Efficient Landscape Ordinance (WELO) and provide the required forms.

13. At the building permit application stage, the applicant shall submit a tree protection plan which protects on- and off-site trees within the proximity of grading and/or construction activities and includes the following measures:

    a. Identify, establish, and maintain tree protection zones throughout the entire duration of the project.

    b. Isolate tree protection zones using 5-foot tall orange plastic fencing supported by poles pounded into the ground, located at the driplines as described in the arborist's report.

    c. Maintain tree protection zones free of equipment and materials storage; contractors shall not clean any tools, forms, or equipment within these areas.

    d. If any large roots or large masses of roots need to be cut, the roots shall be inspected by a certified arborist or registered forester prior to cutting as required in the arborist's report. Any root cutting shall be undertaken by an arborist or forester and documented. Roots to be cut shall be severed cleanly with a saw or toppers. A tree protection verification letter from the certified arborist shall be submitted to the Planning Department within five (5) business days from site inspection following root cutting.

    e. Normal irrigation shall be maintained, but oaks shall not need summer irrigation, unless the arborist's report directs specific watering measures to protect trees.

    f. Street tree trunks and other trees not protected by dripline fencing shall be wrapped with straw wattles, orange fence, and 2 x 4 boards in concentric layers to a height of eight (8) feet.

g. Prior to issuance of a building permit or demolition permit, the Planning and Building Department shall complete a pre-construction site inspection, as necessary, to verify that all required tree protection and erosion control measures are in place.

14. The property owner(s) shall coordinate with the project planner to record the Notice of Determination and pay an environmental filing fee of $2,406.75 (or current fee), as required under Fish and Game Code Section 711.4(d), plus a $50 recording fee to the San Mateo County within four (4) working days of the final approval date of this project.

Building Inspection Section

15. Project is subject to a building permit from the San Mateo County Planning and Building Department.

Drainage Section

16. Prior to the issuance of the building permit, the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Drainage Section 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 Drainage Section for review and approval.

Geotechnical Section

17. A geotechnical report is required at the building permit stage.

Department of Public Works

18. Prior to the issuance of the building permit, 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.

19. 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. The applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

20. 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.

Coastside Fire Protection District

21. Coastside Fire Protection District (CFPD) access shall be to within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be a minimum of 20-foot wide, all weather capability, and able to support a fire apparatus weighing 75,000 lbs. Where a fire hydrant is located in the access, a minimum of 26 feet is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly maintained road to the property. Grades over 15% shall be paved and no grade shall be over 20 percent. When gravel roads are used, it shall be Class 2 base or equivalent compacted to 95 percent. Gravel road access shall be certified by an engineer as to the material thickness, compaction, all weather capability, and weight it will support.

22. All buildings that have a street address shall have the number of that address on the building, mailbox, or other type of sign at the driveway entrance in such a manner that the number is easily and clearly visible from either direction of travel from the street. 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. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. An address sign shall be placed at each break of the road where deemed applicable by the Coastside Fire Protection District. Numerals shall be contrasting in color to their background and shall be no less than 4 inches in height, and have a minimum 1/2-inch stroke. Remote signage shall be a 6 inches by 18 inches green reflective metal sign.

23. 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.

24. A fire flow of 1,500 gallons per minute (gpm) for 2 hours with a 20 pounds per square inch (psi) residual operating pressure must be available as specified by additional project conditions to the project site. The applicant shall provide documentation including hydrant location, main size, and fire flow report at the building permit

application stage. Inspection required prior to CFPD's final approval of the building permit or before combustibles are brought on-site.

25. 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.

26. Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. This includes the requirement for hardwired, interconnected detectors equipped with battery backup and placement in each sleeping room in addition to the corridors and on each level of the residence.

27. 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 Inspection Section for review and approval by the authority having jurisdiction.

28. A statement that the building will be equipped and protected by automatic fire sprinklers must appear on the title page of the building plans.

Coastside County Water District

29. Adequate backflow protection must be provided and shown on the landscape plans.

30. A dedicated irrigation meter will be required for the project because the amount of irrigated landscaping exceeds 5,000 sq. ft.

31. Notes incorrectly refer to Montara Water and Sanitary District (MWSD) standards and must be corrected accordingly. This project is within Coastside County Water District's service area and must comply with Coastside County Water District's regulations.

32. The meter location must be out of driveway or parking areas.

33. Size of water service marked on plans must be corrected since Coastside County Water District requires separate services for fire service and domestic service. The capacity assigned to this parcel is a 5/8-inch meter served from a 3/4-inch water service from the main.

34. Fire service plans were not provided but the minimum size for a single family residence is a 1-inch fire meter serviced from a 1-inch water service from the main.

35. The project is required to comply with Coastside County Water District's Indoor Water Use Efficiency Ordinance which includes regulations on water metering and water use efficiency specifications for plumbing fixtures and appliances. District staff performs inspections to verify compliance with all district regulations during and after construction.

36. If fire sprinklers are required by Coastside Fire Protection District, fire sprinklers shall be served from a separate fire service water connection with a separate fire meter. Please note that Coastside County Water District does not allow passive purge systems to be installed on fire protection services. Fire protection services are authorized for the sole purpose of fire protection, so there shall be no cross connections.

Granada Community Services District (District)

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

Please note that the decision of the Coastside Design Review Committee is a recommendation regarding the project's compliance with design review standards, not the final decision on this project, which requires a hearing-level Coastal Development Permit. For more information, please contact Ruemel Panglao, at 650/363-4582, or by email at rpanglao@smcgov.org.

Sincerely,

Ruemel Panglao
Design Review Officer

RP:pac - RSPEE0020_WPN.DOCX

cc: Bruce Chan, Member Landscape Architect
Katie Kostiuk, Member Architect
Linda Montalto-Patterson, Miramar Community Representative
Paul and Ruth Huard, Owners

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

RECEIVED
APR 18 2018
San Mateo County
Planning and Building Department

Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

HUARD PROPERTY
MAGELLAN AVENUE
MIRAMAR, CALIFORNIA
(APN 048-013-050, -060)

PREPARED FOR:
PAUL HUARD
350 SEQUOIA AVENUE
PALO ALTO, CALIFORNIA 94306

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

NOVEMBER 2017

Sigma Prime Geosciences, Inc.
Effective Solutions

November 21, 2017

Paul Huard
350 Sequoia Avenue
Palo Alto, CA 94306

Subject: Geotechnical Report: Magellan Avenue, Miramar, California
(APN 048-013-050,-060) Sigma Prime Job No. 13-139

Dear Mr. Huard:

As per your request, we have performed a geotechnical study for your proposed residence at Magellan Avenue in Miramar, California. The accompanying report summarizes the results of our field study, laboratory testing, 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.

332 Princeton Avenue, Half Moon Bay, CA 94019 (650) 728-3590 fax 728-3593

GEOTECHNICAL STUDY
MAGELLAN AVENUE
MIRAMAR, CALIFORNIA
APN 048-013-050, -060

PREPARED FOR:
PAUL HUARD
350 SEQUOIA AVENUE
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PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CALIFORNIA 94019

November 21, 2017

TABLE OF CONTENTS

1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed residence at Magellan Avenue in Miramar, 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

We understand that you plan to construct a new home on Magellan Avenue in Miramar. Figure 2 shows the approximate location of the house site. The house is expected to be of wood or steel frame construction. Structural loads are expected to be relatively light as is typical for this type of construction.

1.2 SCOPE OF WORK

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 September 11, 2013. The subsurface study consisted of advancing 2 soil borings with continuous drive sampling. Both soil borings were advanced to depths of 9.5 feet. The approximate locations of the borings, numbered B-1 and B-2, are shown in Figure 2, Site Plan. The boring logs and the results of the laboratory tests on soil samples are attached in Appendix A.

2.2 SITE CONDITIONS

At the time of our study, the site was undeveloped. The lot is very level and mostly covered with thick blackberry brambles. There are scattered cypress and pine trees.

2.3 REGIONAL AND LOCAL GEOLOGY

Based on Brabb et al (1998), the site vicinity is underlain by Holocene age younger alluvial fan deposits. It is described as unconsolidated fine sand, silt, and clay.

2.4 SITE SUBSURFACE CONDITIONS

Based on the 2 soil borings, the subsurface conditions at the site consist of stiff to very stiff clay and sandy clay, with a medium dense clayey sand lens at a depth of about 5 to 7 feet. The clayey sand lens 1.5 to 3.5 feet thick. The clay has high plasticity, with a plasticity index of 43.

2.5 GROUNDWATER

Free groundwater was not encountered in the borings. Groundwater is not expected to impact the proposed 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 2 km to the west. 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

Date	Magnitude	Fault	Locale
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 & Toppozada (1996)
(2) Toppozada et al (1981)
(3) Petersen (1996)
(4) Toppozada (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 D (stiff soil) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

Table 2
CBC SEISMIC DESIGN PARAMETERS

S_S	S_1	F_a	F_v	S_{MS}	S_{M1}	S_{DS}	S_{D1}
2.234	0.961	1.0	1.5	2.234	1.441	1.489	0.961

Because the S_1 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 USGS software program which provides the values based on the latitude and longitude of the site, and the Site Class Definition. The latitude and longitude were 37.4964 and –122.4623, respectively, and were accurately obtained from Google Earth™. These same values can be obtained directly from maps in the CBC, however the scale of the map makes it impractical to achieve satisfactory accuracy. The map in the CBC was derived from the same work that led to the USGS software. The remaining parameters were also obtained by the same USGS program.

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). Figure 1 indicates that the site is between the special studies zones for the San Andreas fault and the Hermit fault. 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. The site soils are stiff to very stiff, and medium dense. Therefore, the likelihood of significant damage to the structure from differential compaction is low.

- 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, saturated silty sands are not expected at the site. Therefore, in our opinion, the likelihood of liquefaction occurring at the site is low.

- Expansive Soil – Expansive soil is clayey soil that swells when wet and shrinks when it dries. These changes in the volume of the soil can cause damage to foundations as the soil rises and lowers differentially. The soils on the site have high expansive potential. The foundation recommendations take this into account.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including topsoil, roots, vegetation, designated utility lines, etc., should be cleared from building and driveway areas. The actual stripping depth required will depend on site usage prior to construction, and should be established by the Contractor during construction. Topsoil may be stockpiled separately for later use in landscaping areas.

3.3.2 Fills

There are no fills on the site and no fills anticipated, except for utility trench fills. Compaction is discussed below

3.3.3 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 fills should be placed in loose lifts not exceeding 12 inches in height, and compacted to at least 92% of the maximum dry density, as determined by ASTM D1157-78.

3.3.4 Surface Drainage

The finish grades should be designed to drain surface water away from foundations and slab areas to suitable discharge points. For permeable surfaces, slopes of at least 5 percent within 10 feet of the structures are recommended. For impermeable surfaces, slopes of at least 2 percent within 10 feet of the structures

are recommended. Ponding of water should not be allowed adjacent to the structure.

3.4 FOUNDATIONS

Due to the nature of the highly expansive soils found on this site, a pier-and-grade-beam foundation is recommended. Piers should be drilled and cast-in-place, and be a minimum of 16 inches in diameter, and should be a minimum of 8 feet deep, as measured from the bottom of the adjacent grade beam. The piers may gain support in skin friction acting along the sides of the piers within the lower soils. A skin friction of 500 pounds per square foot (psf) between the piers and the soil should be used in design to calculate the allowable downward capacity. The uplift capacity of the piers may be based on a skin friction value of 350 psf acting below a depth of 2 feet. The skin friction value may be increased by 1/3 for seismic loads and wind loads. Because of the difficulty in cleaning the bottoms of the pier holes, end bearing should be neglected. However, the pier holes should be kept as clean as possible.

Due to the potential for expansion of the clays, we recommend that the piers also be designed to resist an uplift force calculated using a skin friction of 1,000 psf acting over the upper 4 feet of the piers.

Grade beams should not rest directly on soil. To minimize uplift on grade beams, a 4-inch-thick void should be left beneath the bottom of the grade beams. The gap can be filled with compressible material such as cardboard forms or a suitable equivalent. The perimeter grade beams should extend at least 8-inches below the crawl space grade or the building pad soils below the gravel placed for the garage slab.

When concrete is poured into the pier holes, care must be taken to preserve vertical sides to the piers. In other words, the concrete should not be allowed to flow away from the tops of the piers, creating an upside-down bell shape, or mushroom at the top. A bell-shaped pier cap will allow expansive soil to lift the piers upward. Sonotubes can be used to keep a smooth, vertical side to each pier.

Drilled piers should have a center-to-center spacing of not less than three pier diameters. Our representative should be present during pier drilling operations to assure that piers holes are sufficiently deep and that pier holes are kept free of loose soil. Pier excavations should be poured as soon as practical after drilling. If there is water in the pier holes, it should be pumped out prior to pouring concrete, or the concrete should be tremied into the hole, thereby displacing the water. The concrete should not be allowed to free-fall more than 5 feet.

3.4.1 Lateral Loads

Resistance to lateral loads may be provided by passive pressure acting against the piers, neglecting the upper 2 feet of the pier, and acting across two pier diameters. We recommend that an equivalent fluid weight of 350 pcf be used to calculate the passive resistance against the upper 4 feet of the piers. No passive resistance should be considered in design below a depth of 8 pier diameters.

3.4.2 Slabs-on-Grade

The slabs-on-grade should be structurally connected to the surrounding grade beams. We recommend that slabs-on-grade be underlain by a minimum of 18 inches of Class 2 base rock, or Class 3 base rock (recycled concrete).

3.6 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 owner for specific application in developing geotechnical design criteria, for the currently planned residence on Magellan Avenue in Miramar, California (APN 048-013-050, -060). 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

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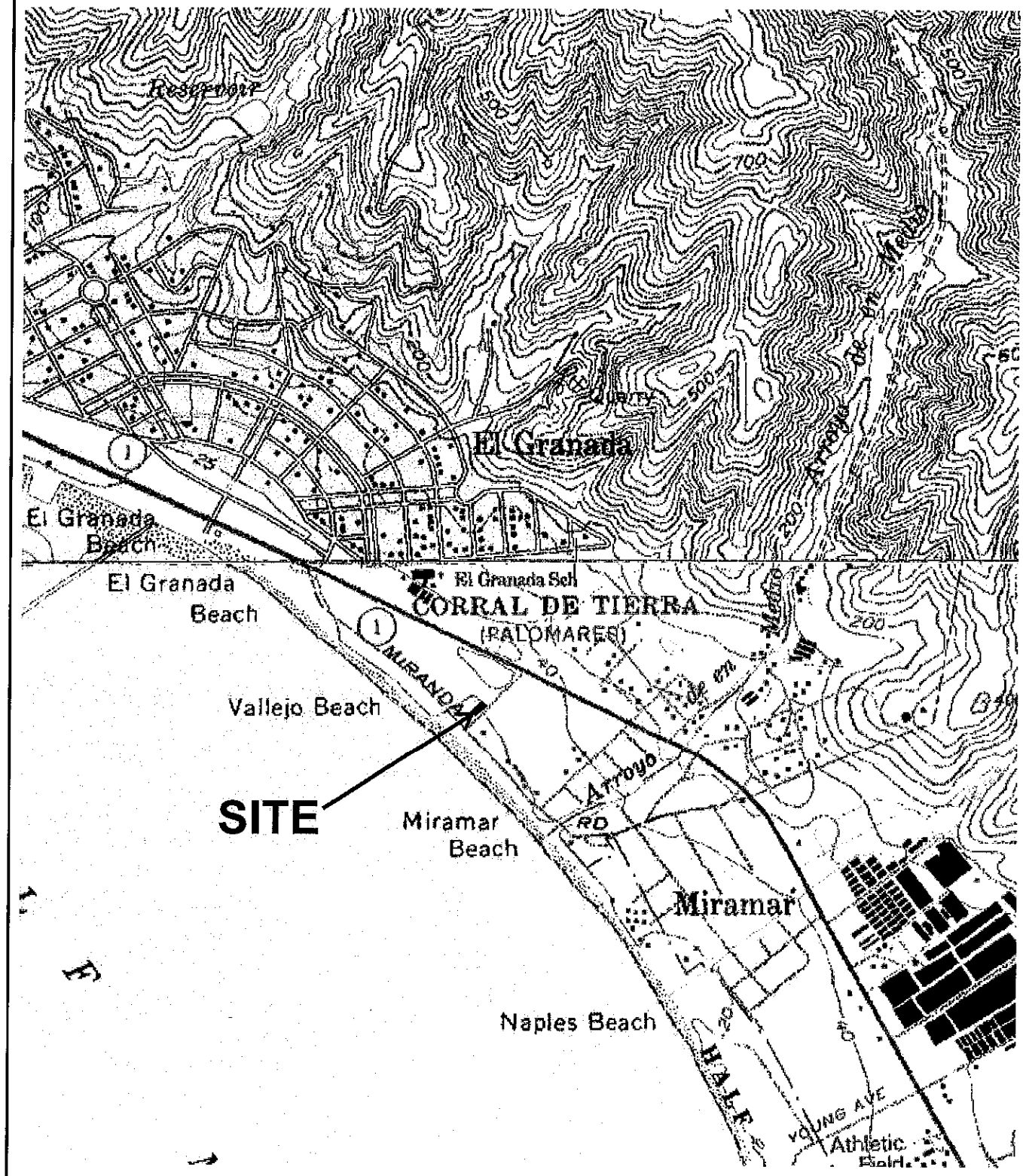
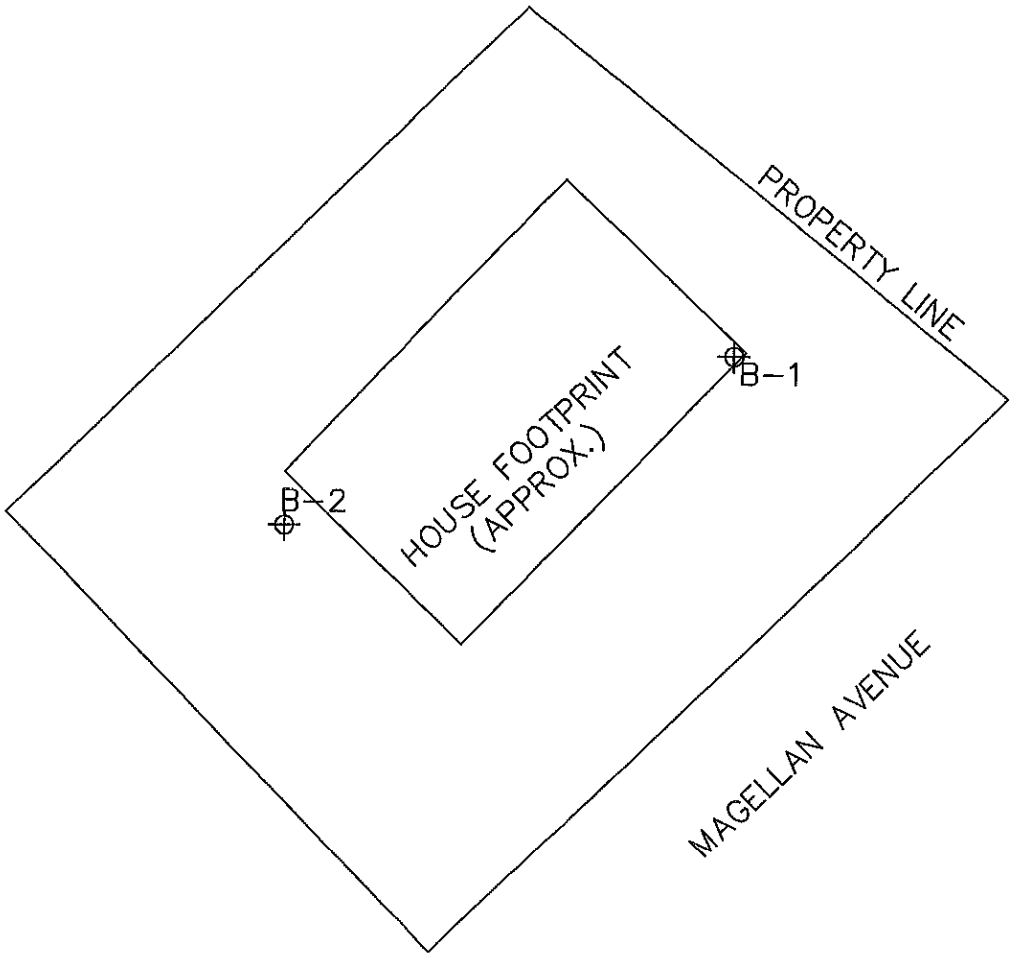
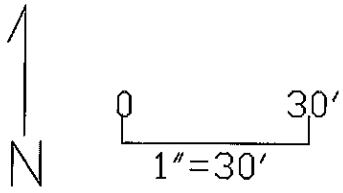


Sigma Prime Geosciences, Inc.	Figure 1
	Date: 11/21/17
	Job No.: 13-139

Location Map

Huard Property, Magellan Ave., Miramar





Explanation

B-2 Soil Boring Drilled 9-11-13

Sigma Prime Geosciences, Inc.

Figure	2
Date:	11/21/17
Job No.:	13-139

Site Map

Huard Property, Magellan Ave., Miramar

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 the sampler the last 12 inches of an 18-inch drive. Because the sampler was driven 24 inches instead of 18 inches, the blow counts are a modification of a standard penetration test. Accordingly, we use engineering judgment when evaluating the soils. The results of these field tests are presented on the boring logs.

The boring logs 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	Project Number
Haurd	13-139

Location: South-East Corner of house site

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Cont. Sampling	4"	9.5'	9.5'	0'	--	--

Boring No.	B-1
Page	1 of 1
Date(s)	9/11/13

Drilling Company: Access Soil Drilling, Inc.
Logged By: C. Kissick
Type of Drill Rig: N/A
Type of Sampler(s): MC, SPT, 2.5" ID
Hammer Weight and Fall: 140 lb, 30"

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
	0'-2': Clay: dark brown; stiff; moist.		CL	9 12 15 16	1	MC	Lab. Sample #1: Moisture%=24.3% Dry Density= 83.6 pcf LL=69, PL=26, PI=43
	2'-4.5': Sandy Clay: moderate brown; very stiff; moist.		CL	9 14 19 20	2	2.5" ID	
5	4.5'-8': Clayey Sand: olive brown; medium dense; moist. 6': 6" thick Silty Sand lens.		SC	14 18 24 21 9 8 10 9	3 4	2.5" ID SPT	
	8'-9.5': Sandy Clay: bluish green; very stiff; moist.		CL	10 12 14	5	SPT	
10	Bottom of Hole @ 9.5' No groundwater encountered.						
15							
20							

Project Name	Project Number
Haurd	13-139

Location: North-West Corner of house site

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Cont. Sampling	4"	9.5'	9.5'	0'	--	--

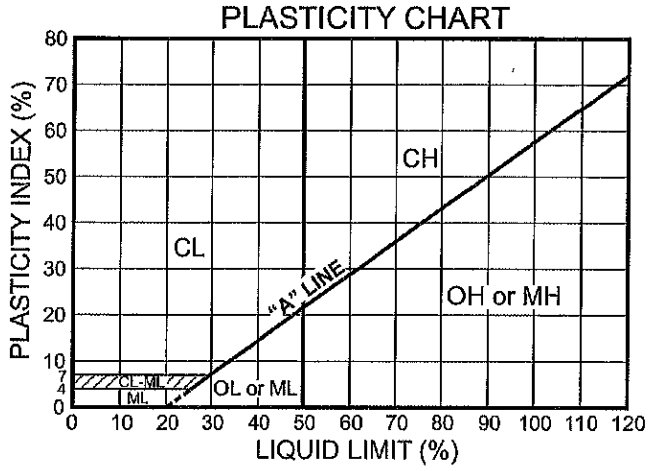
Boring No.	B-2
Page	1 of 1
Date(s)	9/11/13

Drilling Company	Logged By:	Type of Drill Rig	Type of Sampler(s)	Hammer Weight and Fall
Access Soil Drilling, Inc.	C. Kissick	N/A	MC, SPT, 2.5" ID	140 lb, 30"

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
	0'-3': Clay: dark brown; stiff; moist.		CL	9 12 18 24	1	MC	
	3'-6': Sandy Clay: moderate brown; very stiff; moist.		CL	13 22 22 23	2	2.5" ID	
5			CL	13 22 24 21	3	2.5" ID	
	6'-7.5': Clayey Sand: olive brown; medium dense; moist.		SC	5 6 8 7	4	SPT	
	7.5'-9.5': Sandy Clay: bluish green; very stiff; moist.		CL	6 9 14	5	SPT	
10	Bottom of Hole @ 9.5' No groundwater encountered.						
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
			Cu < 4 AND/OR 1 > Cc > 3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES > 12% FINES	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
			Cu < 6 AND/OR 1 > Cc > 3	SP	POORLY-GRADED SAND
		SANDS WITH FINES > 12% FINES	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
			PI > 4 AND PLOTS < "A" LINE	ML	LOW-PLASTICITY SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT > 50	INORGANIC	PI PLOTS > "A" LINE	CH	HIGH-PLASTICITY CLAY
			PI PLOTS < "A" LINE	MH	HIGH-PLASTICITY 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



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

LEGEND TO SOIL DESCRIPTIONS

Sigma Prime Geosciences, Inc.

FIGURE A-1

APPENDIX B

LABORATORY TESTS

Samples from the subsurface study were selected for tests to establish some of 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.

The plasticity of selected clayey soil samples was determined on one soil sample in accordance with ASTM D 422. These results are presented on the boring logs, at the appropriate sample depth.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT F

Tom Dahl, Certified Arborist
P.O. Box 881
Moss Beach, CA 94038

September 1, 2018

Site: 048-013-920 (previously 048-013-050 and 048-013-060) on Magellan Ave in the Miramar neighborhood, an unincorporated area of Half Moon Bay, CA.

On September 1, 2018, I visited the above site for the purpose of inspecting and commenting on the trees. New construction is planned for this site and I was retained to assess the future health and safety of the trees as well as meeting the requirements of your San Mateo County Design Review and Building Permit. The site plan created by Clifford Bechtel & Associates dated August 27, 2018 was reviewed for this report.

1 Method

The trees on site were located on a site map provided to me. Each tree was given an identification number. This number was printed on a plastic label affixed to the tree with temporary tape. The trees were then measured for diameter at 54 inches above ground level (DBH or diameter at breast height). Each tree was given a condition rating for form and vitality. The trees' condition rating is based on 50-percent vitality and 50-percent form, using the following scale.

1 - 29 Very Poor
30 - 49 Poor
50 - 69 Fair
70 - 89 Good
90 - 100 Excellent

The height of each tree was estimated and the spread was paced off. Comments and recommendations are included.

2 Summary

The trees on site are Monterey Cypress, Monterey Pine and Myoporum. Most of the cypress except one (tree 16) are in fair to good condition. The majority of the cypress are on the perimeter of the property which will not obstruct construction. There are no heritage trees on site. Only dead or dying trees will be removed. All significant trees should be protected for the entire length of the project per section 3 (Tree Protection Plan).

#	Species	Trunk Diameter (in)	Canopy (ft)	Height (ft)	Condition	Heritage	Significant	Retain/Remove
1	Monterey Cypress	50"	48'	38'	good	no	yes	retain
2	Monterey Cypress	45"	39'	36'	good	no	yes	retain
	Monterey Cypress	23"	30'	36'	good	no	yes	retain

4	Monterey Cypress	25”	24’	38’	good	no	yes	retain
5	Monterey Pine	14”+11”	14’	30’	poor	no	yes	remove
6	Monterey Cypress	39”	48’	44’	fair	no	yes	retain
7	Monterey Cypress	25”	33’	44’	fair	no	yes	retain
8	Monterey Cypress	28”	34’	46’	fair	no	yes	retain
9	Monterey Cypress	26”	48’	46’	fair	no	yes	retain
10	Monterey Pine	14”	20’	22’	dead	no	no	remove
11	Monterey Pine	17”	18’	40’	poor	no	yes	remove
12	Monterey Pine	15”	15’	22’	dead	no	yes	remove
13	Myoporum	5”+4”+3”+4”	15’	16’	poor	no	no	remove
14	Monterey Pine	19”	22’	32’	poor	no	yes	remove
15	Myoporum	4”+3”+4”+4”	15’	12’	poor	no	no	remove
16	Monterey Cypress	31”	26’	32’	dead	no	no	remove
17	Monterey Cypress	35”	52’	42’	good	no	yes	retain

The following tree protection plan will help to reduce impacts to retained trees.

3 Tree Protection Plan

The Project Arborist will determine the configuration of the tree protection zones, but the general rules follow. Tree protection zones should be established and maintained throughout the entire length of the project. Fencing for the protection zones should be 6 foot tall metal chain link supported by cinder blocks. The support poles should be spaced no more than 10 feet apart on center. The location for the protection fencing should be as close to the dripline as possible still allowing room for construction to safely continue. Signs should be placed on fencing signifying “Tree Protection Zone - Keep Out”. No materials or equipment should be stored or cleaned inside the tree protection zones. Areas outside the fencing but still beneath the dripline of protected trees, where foot traffic is expected to be heavy, should be mulched with 4 to 6 inches of chipper chips. No neighboring trees will be affected or have work performed within 4 times the trees’ DBH measured at 48 inches above ground level.

3.1 Contractor Responsibilities

The general contractor is responsible for contacting the Project Arborist in a timely manner to have the Project Arborist review all work performed within the dripline of protected trees. No self-propelled equipment may enter the dripline of trees. The Project Arborist is to monitor work within the dripline of trees. The Tree Protection Plan is to be included on full size sheets of the construction plans.

3.2 Installation of Driveways

6 inches of mulch will be laid down and covered with steel plates or 1 inch thick plywood during the construction period. The excavation of any driveway within the root zone (10xDBH) of a protected tree to be covered with Geo-Grid fabric with compatible base-rock. Paving material should be porous. The Project Arborist will be on site for the excavation and to document the use of geo-grid fabric.

3.3 Trenching

Trenching for irrigation, electrical, drainage or any other reason should be dug with care when beneath the driplines of protected trees. Carefully laying pipes below or beside protected roots will dramatically reduce root loss of desired trees thus reducing trauma to the entire tree. Trenches should be backfilled as soon as possible with native material and compacted to near its original level. Trenches that must be left exposed for a period of time should also be covered with layers of burlap or straw wattle and kept moist. Plywood over the top of the trench will also help protect exposed roots below. All work within the dripline of protected trees is to be done with care.

3.4 Irrigation

Normal, natural, irrigation should be maintained throughout the entire length of the project. Some irrigation may be required during the dry months depending on the seasonal rainfall. However, all living trees are naturally occurring and thriving with no previous human intervention. Mulching the root zone of protected trees will help the soil retain moisture, thus reducing water consumption. The Project Arborist is to determine the irrigation schedule for protected trees. The general contractor is expected to apply supplemental water at the direction of the Project Arborist.

3.5 Tree Trimming

Prior to the commencement of construction operations, clearance pruning of protected trees is to be properly completed. All trimming will be carried out within ANSI standards and Best Management Practices. The Project Arborist will supervise any tree trimming on site. Ornamental trimming will be done during the landscape phase of the project. The Project Arborist will inspect all trimming. All tree trimming will adhere to ANSI 300 standards and Best Management Practices and City of San Mateo ordinances.

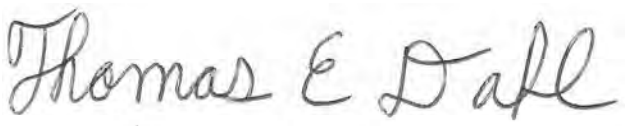
3.6 Pre-Construction Requirements

Prior to the commencement of demolition or construction operations, all appropriate tree protection measures are to be properly implemented and inspected by the Project Arborist. Prior to the issuance of demolition permits, the Project Arborist is to submit a letter by fax or email to the city planner assigned to this project verifying that all tree protection measures are properly implemented and clearance pruning of the trees has been completed. Monthly inspections by the Project Arborist are required for a site such as this.

3.7 Inspection Schedule

The Project Arborist will inspect the tree protection measures and tree trimming prior to the start of construction. The Project Arborist will conduct inspections of the site as required by the city of San Mateo. Inspections will include an inspection letter provided for the owner, contractor and city arborist. The information included in this report is believed to be true and based on sound arboricultural principles and practices.

Sincerely,



Thomas E Dahl Certified Arborist # WE-1953A

4 Glossary

Term	Definition
Adventitious	Arising from parts of the root or stem and having no connection to apical meristems
Air Excavator	A device that directs a jet of highly compressed air to excavate soil.
ANSI	An acronym for American National Standards Institute.
ANSI A300	In the United States, industry developed national consensus standards of practice for tree care.
Bifurcation	A natural division of branch or stem into two or more stems or parts.
Branch union	A point where a branch originates from the trunk or another branch.
Brown rot	A fungal wood rot characterized by the breakdown of cellulose.
Buttress roots	Roots at the trunk base that help support the tree and equalize mechanical stress.
Butt rot	Decay of the lower trunk, trunk flare or buttress roots.
Cabling	Installation of steel or synthetic cable in a tree to provide supplemental support to week branches or crotches.
Canker	A dead, discolored, often sunken area (lesion) on a branch, root, stem or trunk.
Canopy	The part of the crown composed of leaves and small twigs.
Cavity	Open or closed hollow within a tree stem, usually associated with decay.

Compartmentalize	Natural defense process in trees which chemical and physical boundaries are created that act to limit the spread of disease and decay organisms.
Decay	An area of wood that is undergoing decomposition.
Epicormic shoot	Shoot arising from latent or adventitious bud (growth point).
Eradicate	Total removal of a species from a particular area. May refer to pathogens or insect pests or to unwanted plants.
Hypoxylon	Black hemispherical fruiting bodies that develop on the surface of dead bark or wood. The fungus causes a white rot of the sapwood of living trees and dead wood.
Included bark	Bark that becomes embedded in a crotch between branch and trunk or between codominant stems. Causes week structure.
Infectious	Capable of being spread to plants from other plants or organisms.
Lateral	Secondary or subordinate branch or root.
Live crown ratio	Ratio of the height of the crown containing live foliage to the overall height of the tree.
Mycelium	Vegetative body of a fungus.
Watersprout	Upright, epicormic shoot arising from the trunk or branches of a plant above the root graft or soil line.

5 References

(1) Harris, Richard W, Clark, James R, Matheny, Nelda P Arboriculture, Third Edition Prentice Hall 1999.

(2) Matheny, Nelda P, Clark, James R Evaluation Of Hazard Trees In Urban Areas Second Edition International Society of Arboriculture 1994

(3) Dreistadt, Steve H., Pests of Landscape Trees and Shrubs, An Intergrated Pest Management Guide, Second Edition. Agriculture and Natural Resources Publication 3359, 2004.

(4) International Society of Arboriculture, Glossary of Arboricultural Terms. 2006

6 ARBORIST DISCLOSURE STATEMENT

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living nearby trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like a medicine, cannot be guaranteed. Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person

hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures. Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT G

San Mateo County Environmental Services Agency
Planning and Building Division
455 County Center, Mail Drop PLN 122
Redwood City, CA 94063-1646
(650) 363-4161 • Fax (650) 363-4849

RECEIVED
APR 18 2018
San Mateo County
Planning and Building Department

Biological Impact Form

(for compliance with Local Coastal Program Policy 7.5)

Applicant's Name: Paul + Ruth Huard

Primary Permit #:

Owner/Applicant

Name: Paul and Ruth Huard
Mailing Address: ~~[illegible]~~
P.O. Box 2432528
Sioux Falls, SD Zip: 57186

Phone, W: 808-282-6019
H: n/a
Fax: n/a

Project Location

Include U.S.G.S – Tier, Range, and Section:
The 0.29-acre (12,424 sq. ft.) site is located on Magellan Avenue in section 13 of township 5 south, range 6 west.

Assessor's Parcel Number(s):
048-013-050
048-013-060
Applicable Planning Permit numbers: n/a

Principal Investigators

(Note: Attach a qualification summary to the report.)
Name: Davinna Ohlson, Neal Kramer, Nathan Hale, Mark Jennings
Mailing Address: Live Oak Associates, Inc.
6840 Via del Oro, Suite 220
San Jose, CA Zip: 95123

Phone, W: (408) 224-8300
H:
Fax: (408) 224-1411

Report Summary

The proposed project consists of the construction of a two-story, approximately 3,500 sq. ft. single-family home, along with an attached two-car garage and driveway extending to Magellan Avenue, on a 0.29-acre (12,424 sq. ft.) property. The home is proposed to be set back approximately 30 ft. from the northwest property line (BONE Structure 2017). The property is bounded to the northwest and northeast by parklands, to the southeast by Magellan Avenue, and to the southwest by a residence. Surrounding land uses include open space, undeveloped lands, and light residential and commercial development. The Pacific Ocean is approximately 300 ft. southwest of the site.

The project site is currently undeveloped and has recently been mowed. Approximately half of the site supports native California blackberry and non-native poison hemlock. The remainder of the site consists of a ruderal field dominated by non-native grassland species. Approximately twenty Monterey cypress and Monterey pine trees occur on the site. While no aquatic resources are on the site itself, an approximately 2-foot-wide, shallow stream channel runs parallel to and just beyond the site's northwest boundary. This channel conveys runoff from inland areas to the Pacific Ocean.

Additionally, a small artificial pond is located approximately 220 ft. northwest of the project site. The pond supports hydrophytic vegetation and is seasonally wet, depending on the amount of precipitation it receives.

Project impacts to local biological resources are considered to be minimal due to the existing conditions of the site and the small area of proposed ground disturbance. No sensitive communities or habitats are present on the site, although the intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Additionally, a number of trees on the site would be considered significant trees by the County. Special status plant species are expected to be absent from the site due to unsuitable habitat conditions. White-tailed kites could nest in the onsite trees.

Four potential impacts have been identified that could result from the proposed project. First, the intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Placement of the home should be set back from the channel beyond the site's northwest boundary in compliance with the County's LCP. Second, if any onsite trees were to be removed or otherwise impacted as a result of the proposed work, the County of San Mateo may require the applicant to obtain a County permit and comply with its terms, including the likely planting of replacement trees. Third, site disturbance could result in indirect impacts to surrounding resources, such as runoff or erosion into adjacent parklands or the Pacific Ocean. Therefore, the applicant should comply with a County grading permit, including implementation of best management practices (BMPs). Finally, a pre-construction survey of the site would be required if project onset were to occur during the nesting season (February 1 through August 31) for special status bird species, migratory birds, and common raptor species. If nesting pairs were identified, an appropriate disturbance-free buffer should be established until such time when the young had fledged. This would ensure that no individuals are harmed, injured, or killed or an active nest is not abandoned as a result of the proposed construction.

California red-legged frogs and San Francisco garter snakes are highly unlikely to occur on the site due to the distance between the site and known occurrences of these species (i.e., the closest sightings are more than one mile from the site), the unsuitability of habitat for breeding and dispersal both on and adjacent to the site (e.g., lack of aquatic resources onsite; shallow, intermittent channel adjacent to the site; and a nearby pond that holds water seasonally), and the barriers to movement between the site and known populations of these species posed by development and major roadways, including Highway 1.

1. PROJECT AND PROPERTY DESCRIPTION

The proposed project consists of the construction of a two-story, approximately 3,500 sq. ft. single-family home, along with an attached two-car garage and driveway extending to Magellan Avenue, on a 0.29-acre (12,424 sq. ft.) property. The home is proposed to be set back approximately 30 ft. from the northwest property line (BONE Structure 2017).

The 0.29-acre property (also known as the "site") is currently undeveloped and is bounded to the northwest and northeast by parklands, to the southeast by Magellan Avenue, and to the southwest by a residence. Surrounding land uses include open space, undeveloped lands, and light residential and commercial development. The Pacific Ocean is approximately 300 ft. southwest of the site (Figure 1).

The site is relatively flat at approximately 23 ft. National Geodetic Vertical Datum (Figure 2). A narrow, shallow channel runs parallel to and just beyond the site's northwest boundary. No aquatic resources are present on the site itself. Soil types on the site itself have not been mapped (NRCS 2017). However, soils immediately northwest of the site have been mapped, and it is reasonable to conclude that soils on the site are of the same series and unit or exhibit very similar characteristics. Soils on lands adjacent to the site have been mapped as "Denison loam, nearly level." This soil type is not considered hydric, although hydric inclusions could occur. Lands further north of the site occur on "Denison clay loam, nearly level, imperfectly drained" soils. These soils are considered hydric. Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. Under sufficiently wet conditions, they support the growth and regeneration of hydrophytic vegetation.

2. METHODOLOGY

Live Oak Associates (LOA) botanist Neal Kramer conducted a field survey of the site on December 22, 2017. Prior to these site visits, relevant sources of information were reviewed. Sources included 1) USGS topographic maps, 2) aerial imagery of the site and surrounding areas, 3) technical literature related to the biotic resources of the area, 4) species data compiled by the California Native Plant Society (CNPS 2017), California Natural Diversity Database (CDFW 2017), and U.S. Fish and Wildlife Service (USFWS 2015), and 5) the Local Coastal Program policies (San Mateo County 2013).

The December 2017 survey consisted of walking the site and, to the maximum extent practicable, immediately surrounding lands, and recording existing conditions of the site and the potential for sensitive biotic resources to occur onsite. Information gathered in the field was used to characterize the botanical and wildlife resources occurring on the site and in the region. Detailed surveys for sensitive biological resources were not conducted for this study. The level of effort put forth was sufficient to assess the significance of biological constraints associated with the parcel and to assess the need for more detailed studies that could be warranted if sensitive biotic resources were identified in this initial survey.

Previous site surveys completed by LOA include a field survey of the site on June 7, 2010, by LOA ecologists Davinna Ohlson and Nathan Hale and a survey of the site on June 14, 2010, by Mr. Kramer. Mr. Kramer conducted an additional site visit on February 10, 2012, to map the centerline of the stream channel along the site's northwest boundary.

Additional review of the site was completed in February 2012 in consultation with LOA associate herpetologist Dr. Mark Jennings.

3. RESULTS

EXISTING CONDITIONS

The project site is currently undeveloped and has been recently mowed. A large pile of mostly organic debris is mounded at the western end of the lot.

Current vegetation on the site consists of seedlings and resprouts that have come in following the mowing. Approximately half of the site consists of native California blackberry (*Rubus ursinus*) and non-native poison hemlock (*Conium maculatum*). The remainder of the site consists of a ruderal field dominated by non-native grassland species, including wild oats (*Avena fatua*), Italian ryegrass (*Lolium multiflorum*), and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*). Non-native forbs that were observable on the site during the December 2017 survey include wild radish (*Raphanus sativus*) and garden nasturtium (*Tropaeolum majus*). Other non-native forbs known to occur on the site include wild radish (*Raphanus sativus*), common vetch (*Vicia sativa*), greater periwinkle (*Vinca major*), and sweet fennel (*Foeniculum vulgare*). Native species known to occur on the site include bee plant (*Scrophularia californica*), California coffeeberry (*Rhamnus californica* ssp. *californica*), and coyote brush (*Baccharis pilularis*).

Approximately twenty Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*) trees occur on the site. These trees are primarily located along the fenceline of the southwest perimeter and along Magellan Avenue. Several of these trees have died and/or been removed since the 2010 surveys.

While no aquatic resources are on the site itself, an approximately 2-foot-wide, shallow stream channel runs parallel to and just beyond the site's northwest boundary. This channel conveys runoff from inland areas to the Pacific Ocean. The reach of the channel bed along the site boundary did not appear to convey water at the time of the field survey and was largely devoid of vegetation. Vegetation occurring along the channel banks is dense and includes Monterey cypress, California blackberry, pink flowering currant (*Ribes sanguineum* var. *glutinosum*), thick leaf box (*Pittosporum crassifolium*), western lady fern (*Athyrium filix-femina* var. *cyclosorum*), California willowherb (*Epilobium ciliatum*), and green dock (*Rumex conglomeratus*). Additionally, a small artificial pond is located approximately 220 ft. northwest of the project site. The pond supports tall flatsedge (*Cyperus eragrostis*) and is seasonally wet, depending on the amount of precipitation it receives.

Thick leaf litter and brush piles onsite, and dense vegetation along the channel on the site's northwest boundary, provide a moist microclimate suitable for amphibians such as the Pacific treefrog (*Hyla regilla*) and western toad (*Bufo*

boreas) as well as cover for reptiles such as the western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Elgaria multicarinatus*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*).

Bird species observed on the site include Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), bushtit (*Psaltriparus minimus*), American robin (*Turdus migratorius*), California towhee (*Pipilo crissalis*), song sparrow (*Melospiza melodia*), purple finch (*Carpodacus purpureus*), and American goldfinch (*Carduelis tristis*). Raptors that may utilize the cypress and pine trees on the site include the red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*).

Because of the site's proximity to development, vehicular traffic, and high pedestrian use areas, the number of mammalian species expected to occur on the site would be limited. Small mammals such as the raccoon (*Procyon lotor*) may move along the channel. House cats (*Felis catus*) and domestic dogs (*Canis familiaris*) are likely to move onto the site from time to time.

SENSITIVE COMMUNITIES AND HABITATS

The County of San Mateo regulates impacts to sensitive habitats via the Local Coastal Program, which was approved by the California Coastal Commission. Sensitive habitats are defined in the County's Local Coastal Program policies (2013) as 1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, 2) all perennial and intermittent streams and their tributaries, 3) coastal tide lands and marshes, 4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, 5) areas used for scientific study and research concerning fish and wildlife, 6) lakes and ponds and adjacent shore habitat, 7) existing game and wildlife refuges and reserves, and 8) sand dunes. Coastal wetland habitat is also regulated under the Local Coastal Program, which consists of areas meeting the U.S. Army Corps of Engineers' (USACE) hydrology criterion with either hydric soils or dominating hydrophytic vegetation. Sensitive habitats associated with wetlands and streams may also be regulated by the USACE, CDFW, and RWQCB.

The County's LCP establishes buffer zones in riparian areas and states that "where no riparian vegetation exists along both sides of riparian corridors, extend buffer zones 50 feet from the predictable high water point for perennial streams and 30 feet from the midpoint of intermittent streams."

The County of San Mateo also has regulations protecting large trees that may occur within these communities or habitats. According to County Ordinance Section 12.000, a "significant tree" is any live woody plant rising above the ground with a single stem or trunk of a circumference of thirty-eight inches (about 12 inches in diameter) at a point 4.5

feet above the ground or immediately below the lowest branch, whichever is lower, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes. Heritage trees, protected under Section 11.000 of the County's ordinance code, include those specific trees or groves of trees designated by the County as "heritage," and those listed native trees designated in the ordinance with diameters equal to or greater than the sizes listed. A permit is required for the removal of a significant or heritage tree. Such permits are issued on the condition that replacement trees will be planted to compensate for the loss of each tree.

No sensitive communities or habitats are present on the site, although the intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Additionally, a number of trees on the site would be considered significant trees by the County. Therefore, a permit may be required from the County if these trees are to be removed as a result of the proposed project.

SPECIAL STATUS SPECIES

A number of species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered rare and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided the County of San Mateo, California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. Many of these native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2001). Collectively, these plants and animals are referred to as "special status species."

A number of special status plants and animals occur in the site's vicinity. A search of published accounts for all relevant special status plant and animal species was conducted for the Half Moon Bay USGS 7.5" quadrangle in which the project site occurs and for the five surrounding quadrangles (Montara Mountain, San Mateo, Woodside, La Honda, and San Gregorio) using the California Natural Diversity Data Base Rarefind 5 (CDFW 2017). Only these six quadrangles were searched instead of nine because the Pacific Ocean begins less than 0.1 mile southwest of the parcel. All plant species listed as occurring in these quadrangles on CNPS Lists 1A, 1B, 2, 3, or 4 were also reviewed.

Special Status Plants

Special status plant species include those listed as endangered, threatened, rare, or as species of concern by the USFWS, the CDFW, and the CNPS. The CDFW and CNPS have developed their own set of lists (i.e., California Rare Plant

Ranks, or CRPR) of native plants considered rare, threatened, or endangered. Additional definitions are given in CEQA, Section 15380(d).

Based on a review of extant special status plant species from the Half Moon Bay area, 62 sensitive plant species are known to occur within the vicinity of the parcel (CDFW 2017, CNPS 2017). Serpentine soils are absent from the site; as such, those species that are uniquely adapted to serpentine conditions, including the San Mateo thorn-mint (*Acanthomintha duttonii*), Crystal Springs fountain thistle (*Cirsium fontinale* var. *fontinale*), Hillsborough chocolate lily (*Fritillaria biflora* var. *ineziana*), Marin western flax (*Hesperolinon congestum*), serpentine leptosiphon (*Leptosiphon ambiguus*), Crystal Springs lessingia (*Lessingia arachnoidea*), woolly-headed lessingia (*Lessingia hololeuca*), and woodland woollythreads (*Monolopia graciliens*) are considered absent from the site. Other plant species occur in habitats not present in the study area (e.g., chaparral, brackish and freshwater marshes, etc.) and, therefore, are also considered absent from the site. These species include the Anderson's manzanita (*Arctostaphylos andersonii*), Montara manzanita (*Arctostaphylos montaraensis*), King's Mountain manzanita (*Arctostaphylos regismontana*), Point Reyes bird's-beak (*Chloropyron maritimum* ssp. *palustre*), clustered lady's-slipper (*Cypripedium fasciculatum*), mountain lady's-slipper (*Cypripedium montanum*), California bottle-brush grass (*Elymus californicus*), San Mateo woolly sunflower (*Eriophyllum latilobum*), minute pocket moss (*Fissidens pauperculus*), Indian Valley bush-mallow (*Malacothamnus aboriginum*), arcuate bush-mallow (*Malacothamnus arcuatus*), and Methuselah's beard lichen (*Usnea longissima*).

A summary of the formal status, habitat affinities, and potential for occurrence on the site itself for the remaining locally occurring special status plant species is discussed in Table 1.

Table 1: Special status plant species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Blasdale's bentgrass (*Agrostis blasdalei*)	CRPR 1B	Coastal dunes, coastal bluff scrub, and coastal prairie.	**Absent.** Suitable habitat is not present on the site.
Franciscan onion (*Allium peninsulare* var. *franciscanum*)	CRPR 1B	Cismontane woodland, valley and foothill grassland on clay and volcanic soils and often on serpentinite.	**Absent.** Suitable habitat is not present on the site.
Bent-flowered fiddleneck (*Amsinckia lunaris*)	CRPR 1B	Coastal bluff scrub, cismontane woodland, grasslands.	**Absent.** Suitable habitat is not present on the site.
Coast rockcress (*Arabis blepharophylla*)	CRPR 4	Broadleafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub.	**Absent.** Suitable habitat is not present on the site.

Table 1: Special status plant species known to occur in the vicinity of the site.			
Species	Status	Habitat Affinities	Potential for Occurrence
Ocean bluff milk-vetch (*Astragalus nuttallii* var. *nuttallii*)	CRPR 4	Coastal bluff scrub and coastal dunes.	**Absent.** Suitable habitat is not present on the site.
Coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*)	CRPR 1B	Mesic sites in coastal dunes or within fresh and salt water marshes/swamps.	**Absent.** Suitable habitat is not present on the site.
Brewer's calandrinia (*Calandrinia breweri*)	CRPR 4	Chaparral and coastal scrub on sandy or loamy soils.	**Absent.** Suitable habitat is not present on the site.
Round-leaved filaree (*California macrophylla*)	CRPR 1B	Cismontane woodland and valley and foothill grassland on clay soils.	**Absent.** Suitable habitat is not present on the site. The nearest documented occurrence of this species is from 1896 and more than fifteen miles from the site.
Oakland star-tulip (*Calochortus umbellatus*)	CRPR 4	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. Often occurs on serpentinite.	**Absent.** Suitable habitat is not present on the site.
Johnny-nip (*Castilleja ambigua* var. *ambigua*)	CRPR 4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, and vernal pools margins.	**Absent.** Suitable habitat is not present on the site.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	CRPR 1B	Coastal prairie, meadows and seeps, coastal salt marshes/swamps, and grasslands.	**Unlikely.** Marginal habitat is present on the site. This species has not been documented within five miles of the site.
San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*)	CRPR 1B	Coastal bluff scrub, coastal dunes and prairies. Sandy soils.	**Absent.** Suitable habitat is not present on the site.
Franciscan thistle (*Cirsium andrewsii*)	CRPR 1B	Broadleafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub. Mesic soils and sometimes serpentinite.	**Absent.** Suitable habitat is not present on the site.
San Francisco collinsia (*Collinsia multicolor*)	CRPR 1B	Closed cone coniferous forest and coastal scrub, sometimes on serpentine soils.	**Absent.** Suitable habitat is not present on the site.
Western leatherwood (*Dirca occidentalis*)	CRPR 1B	Broadleaved forest, chaparral, woodland, coniferous forest, riparian woodland.	**Absent.** Suitable habitat is not present on the site. This species is not known to occur along the coast.
San Francisco wallflower (*Erisymum franciscanum*)	CRPR 4	Chaparral, coastal dunes, coastal scrub, and valley and foothill grassland.	**Absent.** Suitable habitat is not present on the site.

Table 1: Special status plant species known to occur in the vicinity of the site.			
Species	Status	Ecological Attributes	Potential for Occurrence
Marin checker lily (*Fritillaria lanceolata* var. *tristulis*)	CRPR 1B	Coastal bluff scrub, coastal prairie, and coastal scrub.	**Absent.** Suitable habitat is not present on the site.
Fragrant fritillary (*Fritillaria liliacea*)	CRPR 1B	Coastal scrub, grasslands, often on serpentine and clay.	**Absent.** Suitable habitat is not present on the site. This species is not known to occur along the coast.
San Francisco gumplant (*Grindelia hirsutula* var. *maritima*)	CRPR 3	Coastal scrub, coastal bluff scrub, grassland. Sandy or serpentine soils on ocean bluffs.	**Absent.** Suitable habitat is not present on the site.
Short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*)	CRPR 1B	Coastal bluff scrub on sandy soils and coastal dunes.	**Absent.** Suitable habitat is not present on the site.
Kellogg's horkelia (*Horkelia cuneata* var. *sericea*)	CRPR 1B	Chaparral and sandy or gravelly openings within coastal scrub.	**Absent.** Suitable habitat is not present on the site.
Point Reyes horkelia (*Horkelia marinensis*)	CRPR 1B	Sandy coastal dunes, coastal scrub, coastal prairie.	**Absent.** Suitable habitat is not present on the site.
Coast iris (*Iris longipetala*)	CRPR 4	Coastal prairie, lower montane coniferous forest, and meadows and seeps.	**Absent.** Suitable habitat is not present on the site.
Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)	CRPR 1B	Coastal bluff scrub, coastal dunes, and coastal scrub.	**Absent.** Suitable habitat is not present on the site.
Coast yellow linanthus (*Leptosiphon croceus*)	CRPR 1B	Coastal bluff scrub, coastal prairie near ocean	**Absent.** Suitable habitat is not present on the site.
Rose linanthus (*Leptosiphon rosaceus*)	CRPR 1B	Coastal bluff scrub adjacent to coast	**Absent.** Suitable habitat is not present on the site.
Ornduff's meadowfoam (*Limnanthes douglasii* ssp. *ornduffii*)	CRPR 1B	Meadows and seeps, particularly in agricultural fields.	**Absent.** Suitable habitat is not present on the site.
San Mateo tree lupine (*Lupinus arboreus* var. *eximius*)	CRPR 3	Chaparral and coastal scrub.	**Absent.** Suitable habitat is not present on the site.
Davidson's bush-mallow (*Malacothamnus davidsonii*)	CRPR 1B	Chaparral, cismontane woodland, coastal scrub, and riparian woodland.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1901.
Hall's bush-mallow (*Malacothamnus hallii*)	CRPR 1B	Chaparral and coastal scrub.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1902.

Table 1: Special status plant species known to occur in the vicinity of the site.			
Species	Status	Habitat Affinities	Potential for Occurrence
Marsh microseris (*Microseris paludosa*)	CRPR 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland.	**Absent.** Suitable habitat is not present on the parcel. The nearest documented occurrences of this species are more than fifteen miles from the site.
Dudley's lousewort (*Pedicularis dudleyi*)	CRPR 1B	Maritime chaparral, cismontane woodland, north coast coniferous forest, and valley and foothill grassland.	**Absent.** Suitable habitat is not present on the site. The nearest documented occurrences of this species are more than twenty miles from the site.
White-rayed pentachaeta *(Pentachaeta bellidiflora)*	FE, CE, CRPR 1B	Open dry rocky slopes and grassy areas, usually on serpentine soils.	**Absent.** Suitable habitat is not present on the site. This species has not been documented along the coast.
Choris' popcorn-flower (*Plagiobothrys chorisianus* var. *chorisianus*)	CRPR 1B	Chaparral, coastal prairie, and coastal scrub on mesic soils.	**Absent.** The site does not exhibit mesic soils that would support this species.
Oregon polemonium (*Polemonium carneum*)	CRPR 2	Coastal prairie, coastal scrub, and lower montane coniferous forest.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1916.
Hickman's cinquefoil *(Potentilla hickmanii)*	FE, CE, CRPR 1B	Freshwater marshes and swamps, vernally mesic meadows and seeps, and coastal bluff scrub.	**Absent.** Suitable habitat is not present on the site.
Lobb's aquatic buttercup (*Ranunculus lobbii*)	CRPR 4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, and vernal pools. Occurs in mesic soils.	**Absent.** Suitable habitat is not present on the site.
Chaparral ragwort (*Senecio aphanactis*)	CRPR 2B	Chaparral, cismontane woodland, and coastal scrub, sometimes in alkaline soils.	**Absent.** Suitable habitat is not present on the site.
San Francisco campion *(Silene verecunda* ssp. *verecunda)*	CRPR 1B	Coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grasslands on sandy soils.	**Absent.** Sandy soils are not present on the site. The nearest documented occurrence of this species is more than three miles from the site.
Saline clover (*Trifolium hydrophilum*)	CRPR 1B	Marshes and swamps, valley and foothill grasslands on mesic or alkaline soils, and vernal pools.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1886.
San Francisco owl's clover *(Triphysaria floribunda)*	CRPR 1B	Coastal prairie, usually serpentine soils.	**Absent.** Suitable habitat is not present on the site.
Coastal triquetrella (*Triquetrella californica*)	CRPR 1B	Coastal bluff scrub and coastal scrub.	**Absent.** Suitable habitat is not present on the site.

Table 1: Special status plant species known to occur in the vicinity of the site.			
Species	Status	Habitat Affinities	Potential for Occurrence

Federal Status
FE Federally Endangered
FT Federally Threatened

State Status
CE California Endangered
CT California Threatened

CNPS
1B Rare, threatened, or endangered in California and elsewhere
2 Rare, threatened, or endangered in California but more common elsewhere
3 Plants about which more information is needed

Sources: CDFW 2017, CNPS 2017

Of the 62 special status plant species known to occur in the site's vicinity, none are expected to occur on the site itself due to the lack of suitable habitat.

Special Status Animals

Special status animal species include those listed as endangered, threatened, rare, or as candidates for listing by the USFWS and/or CDFW. Other species regarded as having special status include special animals as listed by the CDFW. Additional animal species receive protection under the Bald Eagle Protection Act and the Migratory Bird Treaty Act (16 U.S.C. 703-711). The Fish and Game Code of California provides protection for "fully protected birds" (Section 3511), "fully protected mammals" (Section 5515), "fully protected reptiles and amphibians" (Section 5050), and "fully protected fish" (Section 5515). Additional definitions are given in the California Environmental Quality Act Section 15380.

Based on a review of extant special status animal species from the Half Moon Bay area (CDFW 2017) and an understanding of the geographic range and habitat affinities of special status animal species, 31 species are known to occur within the Half Moon Bay region. A summary of the formal status, habitat affinities, and potential for occurrence on the site itself for locally occurring special status animal species is discussed in Table 2.

Table 2: Special status animal species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Invertebrates			
Monarch butterfly—overwintering population *(Danaus plexippus)*	None	Roosts in wind-protected tree groves.	**Unlikely.** Individuals may pass over the site, but this species is not expected to roost in the onsite trees.
Mission blue butterfly *(Plebejus icarioides missionensis)*	FE	Grasslands with lupine host plants.	**Absent.** Suitable habitat, including host plants, is not present on the site.

Table 2: Special status animal species known to occur in the vicinity of the site.			
Species	Status	Habitat Affinities	Potential for Occurrence
San Bruno elfin butterfly *(Callophrys mossii bayensis)*	FE	Grasslands with *Sedum* host plants on north-facing slopes.	**Absent.** Suitable habitat is not present on the site. The necessary host plant is absent.
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	FT	Native grasslands on outcrops of serpentine soils. Primary host plant is *Plantago erecta*.	**Absent.** Suitable habitat, including host plants, is not present on the site.
Myrtle's silverspot butterfly *(Speyeria zerene myrtleae)*	FE	Coastal scrub and grasslands with *Viola* host plants.	**Absent.** Suitable habitat, including host plants, is not present on the site.
Fish			
Tidewater goby (*Eucyclogobius newberryi*)	FE, CSC	A marine species occurring in shallow water estuaries and lagoons from Del Norte Co. south to San Diego Co.	**Absent.** Suitable habitat is absent from the site. This species would not be expected to occur in the narrow channel adjacent to the site.
Steelhead –central California coast DPS *(Oncorhynchus mykiss irideus)*	FT	Coastal streams and rivers.	**Absent.** Suitable habitat is absent from the site. This species would not be expected to occur in the narrow channel adjacent to the site.
Longfin smelt (*Spirinchus thaleichthys*)	FC, CT, CSC	Open waters of estuaries.	**Absent.** Suitable habitat is absent from the site. This species would not be expected to occur in the narrow channel adjacent to the site.
Amphibians			
California tiger salamander (*Ambystoma californiense*)	FT, CT	Breeds in vernal pools and stock ponds of central California. Adults aestivate in grassland habitats adjacent to the breeding sites.	**Absent.** Breeding and aestivation habitat is absent from the site.
California giant salamander (*Dicamptodon ensatus*)	CSC	Wet coastal forests near streams and seeps.	**Absent.** The site and the nearby channel do not provide suitable habitat for this species. This species has not been documented along this channel. The nearest documented occurrence of this species is more than five miles from the site.
Santa Cruz black salamander (*Aneides niger*)	CSC	Mixed deciduous and coniferous woodlands and coastal grasslands.	**Absent.** The site does not provide suitable habitat for this species. The nearest documented occurrence of this species is more than nine miles southeast of the site.
Foothill yellow-legged frog (*Rana boylii*)	CSC	Frequents partly shaded, shallow, swiftly-flowing streams and riffles with rocky substrate in a variety of habitats.	**Absent.** The site and the nearby channel do not provide suitable habitat for this species. This species has not been documented along this channel.

Table 2: Special status animal species known to occur in the vicinity of the site.			
Species	Status	Habitat Affinities	Potential for Occurrence
California red-legged frog *(Rana draytonii)*	FT, CSC	Rivers, creeks and stock ponds of the Sierra foothills and coast range, preferring pools with overhanging vegetation.	**Highly Unlikely.** The site and the nearby channel do not provide suitable habitat for this species, as the site lacks aquatic resources, and the channel is shallow and conveys water intermittently. This species has not been documented along this channel. The nearby pond is shallow and also holds water seasonally and, therefore, would not serve as suitable breeding habitat. The nearest documented occurrences are approximately 1.1 miles to the northwest and approximately 1.5 miles to the east of the site. Extensive urbanization and major roads, including Highway 1, serve as barriers to movement between these known CRLF locations and the site.
Reptiles			
Western pond turtle (*Emys marmorata*)	CSC	Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	**Absent.** The site and the nearby channel do not provide suitable habitat for this species. This species has not been documented along this channel.
San Francisco garter snake *(Thamnophis sirtalis tetrataenia)*	FE, CE	Freshwater marshes, ponds, and slow-moving streams, preferring dense cover and water depths of at least one foot.	**Highly Unlikely.** The site and the nearby channel do not provide suitable habitat for this species. Extensive urbanization and major roads, including Highway 1, serve as barriers to movement between the site and known populations of this species.
Birds			
White-tailed kite *(Elanus leucurus)*	CP	Open grasslands and agricultural areas throughout central California.	**Possible.** This species could utilize the onsite trees for nesting during the breeding season and perching during the non-breeding season. The parcel provides only marginal foraging habitat due to the lack of open habitat.
Peregrine falcon (*Falco peregrinus anatum*)	CP	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	**Absent.** Suitable breeding habitat is absent from the site.
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, CSC	Nests in sandy marine and estuarine shores, and along salt levees.	**Absent.** Suitable habitat is absent from the site.
California black rail (*Laterallus jamaicensis coturniculus*)	CT, CP	Resident of saline and fresh emergent wetlands.	**Absent.** Suitable habitat is absent from the site.
California Ridgway's rail *(Rallus obsoletus obsoletus)*	FE, CE, CP	Saltwater and brackish marshes.	**Absent.** Suitable habitat is absent from the site.

Table 2: Special status animal species known to occur in the vicinity of the site.			
Species	Status	Habitat Affinities	Potential for Occurrence
Marbled murrelet (*Brachyramphus marmoratus*)	FT, CE	Nests in old-growth redwood-dominated forests.	**Absent.** Suitable habitat is absent from the site.
Burrowing owl (*Athene cunicularia*)	CSC	Open, dry grasslands, deserts and ruderal areas. Requires suitable burrows. Often associated with California ground squirrels.	**Absent.** Suitable nesting habitat is absent from the site. The site occurs outside of the species' known range.
Bank swallow (*Riparia riparia*)	CT	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured or sandy soils near streams, rivers, lakes, or ocean to dig nesting hole.	**Absent.** Suitable nesting habitat is absent from the site.
Saltmarsh common yellowthroat *(Geothlypis trichas sinuosa)*	CSC	Coastal streams dominated by willows and brackish or freshwater marshes.	**Absent.** Suitable nesting habitat is absent from the site. This species may occasionally forage over the site.
Alameda song sparrow (*Melospiza melodia pusillula*)	CSC	Found in salt marshes, primarily along the Bay in Alameda County	**Absent.** Suitable habitat is absent from the site.
Mammals			
Pallid bat (*Antrozous pallidus*)	CSC	Grasslands, chaparral, woodlands, and forests of California; most common in dry rocky open areas that provide roosting opportunities.	**Absent.** Individuals could pass over the site on their way to more suitable habitat. However, suitable habitat is not present on the site itself.
Big free-tailed bat (*Nyctinomops macrotis*)	CSC	Rocky, arid habitats. Roosts primarily in crevices, but have been observed roosting in caves, buildings, and trees.	**Absent.** Individuals could pass over the site on their way to more suitable habitat. However, suitable habitat is not present on the site itself.
Townsend's big-eared bat (*Corynorhinus townsendii*)	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	**Absent.** Individuals could pass over the site on their way to more suitable habitat. However, suitable habitat is not present on the site itself.
Salt-marsh harvest mouse (*Reithrodontomys raviventris*)	FE, CE, CP	Saline emergent wetlands dominated by pickleweed.	**Absent.** Suitable habitat is absent from the site, and the site occurs outside the native range of this species.

Table 2: Special status animal species known to occur in the vicinity of the site.			
Species	Status	Habitat Characteristics	Potential for Occurrence
San Francisco dusky-footed woodrat *(Neotoma fuscipes annectens)*	CSC	Woodlands and forests, riparian communities.	**Absent.** Suitable habitat is absent from the site.
American badger *(Taxidea taxus)*	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils	**Absent.** Suitable habitat is absent from the site.
Federal Status FE Federally Endangered FT Federally Threatened	**State Status** CE California Endangered CT California Threatened CSC California Species of Concern CP California Fully Protected		

Source: CDFW 2017

Of the 31 special status animal species known to occur in the vicinity of the site, only the white-tailed kite is expected to potentially occur on the site. The white-tailed kite is listed as a fully protected species. In short, the CDFW cannot issue a take permit for impacts to individuals of species having the fully protected status. The CDFW can, however, authorize impacts to habitat suitable for the kite. White-tailed kites inhabit open lowland grassland, riparian woodland, marshes, and scrub areas and nest in a variety of species of large trees. White-tailed kites could nest in the onsite trees. Foraging habitat on the site for this species is marginal.

4. DIRECT AND INDIRECT IMPACTS TO BIOLOGICAL HABITATS

The project site is relatively small in size at 0.29 acre and is located next to light residential and commercial development, ruderal fields, and parklands. The proposed project is a two-story, approximately 3,500 sq. ft. single-family home. No sensitive or special status communities/habitats occur on the site itself, and the loss of a small amount of native blackberry and regionally abundant ruderal, non-native grassland habitat would not be considered a significant impact.

The intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. The home is proposed to be set back approximately 30 ft. from the northwest property line, and small adjustments to this setback may need to be made in order to comply with the County's LCP. Additionally, approximately twenty Monterey cypress and Monterey pines are present on the site. A number of these trees would be considered significant trees regulated by the County. Mitigation measures would be required to offset direct and indirect impacts to the stream channel and to significant trees present on the site (*Mitigation Measures 1* and *2*).

Regardless of the biological quality of the site itself, high quality habitat remains in the immediate vicinity (e.g., parklands to the northwest and northeast and the Pacific Ocean approximately 300 ft. southwest of the site). In order to maintain the currently quality of surrounding biotic habitats, measures should be taken to ensure onsite ground disturbances do not degrade local resources (*Mitigation Measure 3*).

Mitigation Measure 1:

Placement of the home should be set back from the channel beyond the site's northwest boundary in compliance with the County's LCP. Because the channel lacks associated riparian vegetation and carries intermittent flows, a buffer of 30 ft. from the midpoint of the channel would be appropriate (Figure 3).

Mitigation Measure 2:

Should project buildout require the removal of any trees on the site considered to be a significant tree, a tree removal permit would need to be obtained and its conditions complied with (e.g., planting of replacement trees) pursuant to the County's tree ordinance.

Mitigation Measure 3:

The applicant should comply with the provisions of a County grading permit, including implementation of standard erosion control measures that employ best management practices (BMPs).

5. DIRECT AND INDIRECT IMPACTS TO SPECIAL STATUS SPECIES

A number of special status plant and animal species are known to occur in the vicinity of Half Moon Bay and El Granada. Special status plant species are presumed to be absent from the site due to unsuitable habitat conditions and/or ongoing management of the site (i.e., mowing).

Most special status wildlife also would not be expected to occur on the site. However, white-tailed kites, a California protected species, may utilize the site while breeding. Additionally, migratory birds and locally occurring raptor species are protected by the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) and State Fish and Game Code. Therefore, if site disturbance were to occur during these species' breeding season (February 1 through August 31), implementation of *Mitigation Measure 4* would be required to insure that migratory birds and raptors were not harmed, injured, or killed as a result of buildout of the proposed project.

As discussed in section 3, California red-legged frogs and San Francisco garter snakes are highly unlikely to occur on the site due to the distance between the site and known occurrences of these species (i.e., the closest sightings are more than one mile from the site), the unsuitability of habitat for breeding and dispersal both on and adjacent to the site

(e.g., lack of aquatic resources onsite; shallow, intermittent channel adjacent to the site; and a nearby pond that holds water seasonally), and the barriers to movement between the site and known populations of these species posed by development and major roadways, including Highway 1. This determination is consistent with conclusions regarding these species for an adjacent property (WRA 2009).

Mitigation Measure 4:

Should trees need to be removed, their removal should occur during the non-breeding season (September 1 through January 31). If it is not possible to avoid tree removal or other disturbances during the breeding season (February 1 through August 31), a qualified biologist should conduct a pre-construction survey for white-tailed kites, migratory birds, and common tree-nesting raptors in all trees within the development footprint and, to the maximum extent practicable, within 250 ft. of the footprint no more than 14 days from the onset of ground disturbance, if such disturbance will occur during the breeding season. If such species are detected on the site during the survey, a suitable activity-free buffer should be established around all active nests. The precise dimension of the buffer (up to 250 ft.) would be determined at that time and may vary depending on such factors as nest location, species, and line of sight to the construction area. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

6. MITIGATION MEASURES TO REDUCE IMPACTS TO A LESS-THAN-SIGNIFICANT LEVEL

Table 3: Impacts, mitigation measures, and their effectiveness.

Impacts	Mitigation Measure	Effectiveness
Sensitive Habitats: Indirect impacts to the intermittent channel just beyond the site's northwest boundary.	**Mitigation Measure 1:** A development setback of 30 ft. from the midpoint of the channel should be established.	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.
Significant Trees: Direct impacts to Monterey cypress and Monterey pines occurring onsite.	**Mitigation Measure 2:** Should project buildout require the removal of any trees on the site considered to be a significant tree, a tree removal permit would need to be obtained and its conditions complied with (e.g., planting of replacement trees) pursuant to the County's tree ordinance.	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.
Surrounding Biological Resources: Indirect impacts to the surrounding biological resources, particularly parklands to the northwest and northeast of the site and the Pacific Ocean approximately 300 ft. southwest of the site.	**Mitigation Measure 3:** The applicant should comply with the provisions of a County grading permit, including implementation of standard erosion control measures that employ best management practices (BMPs).	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.

Table 3: Impacts, mitigation measures, and their effectiveness.		
[illegible]	[illegible]	[illegible]
Nesting Avian Species: Direct impacts to special status avian species (i.e., white-tailed kites), migratory birds, and common tree-nesting raptors if site disturbance were to occur during the breeding season (February 1 through August 31).	**Mitigation Measure 4:** A qualified biologist should conduct a pre-construction migratory bird and raptor survey of all onsite trees within 250 ft. of the proposed development footprint within 14 days of the onset of ground disturbance. If such species were detected, a suitable activity-free buffer should be established around all active nests. The precise dimension of the buffer (up to 250 ft.) would be determined at that time and may vary depending on such factors as nest location, species, and line of sight to the construction area. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.

7. **CERTIFICATION:** I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: 5 January 2018 Signed: Davrina Dhlon

ENCLOSURES

+ Aerial image of project site and surrounding area

+ Map of area from the USGS 7.5-minute quadrangle series

+ Map of 30-ft. setback from the channel centerline

REFERENCES

BONE Structure. 2017. 171113 Huard plan survey overlay. San Francisco, CA.

California Department of Fish and Wildlife. 2017. California natural diversity database. The Resources Agency, Sacramento, CA.

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 28 December 2017].

County of San Mateo. 2013. Local coastal program policies. Planning and Building Department.

Natural Resource Conservation Service. 2017. Soil survey, San Mateo Area, California. USDA. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx [accessed 28 December 2017].

U. S. Fish and Wildlife Service (USFWS). 2015. Endangered and threatened wildlife and plants.

WRA. 2009. Biological resource assessment: proposed Hodge residence, Magellan Avenue, Miramar, San Mateo County, California. San Rafael, CA.

QUALIFICATIONS

Live Oak Associates, Inc. (LOA) has considerable expertise in biotic resource issues (i.e., vegetation, wildlife (including macroinvertebrate and fish evaluations,), habitat management, sensitive habitats (including wetlands and waterways), mitigation, permitting). The firm assists clients in compliance with local, state and federal regulations protecting scarce or sensitive biotic resources. LOA conducts wetland delineations, California Environmental Quality Act (CEQA) evaluations, National Environmental Policy Act (NEPA) assessments, endangered species surveys and habitat suitability assessments. LOA has worked closely with the various regulatory agencies in regards to Sections 401 and 404 of the Clean Water Act, Sections 1601 and 1603 of the California Fish and Game Code, and the Local Coastal Program dictated by the California Coastal Act. Consultations regarding Sections 7 and 10 of the Endangered Species Act have also been initiated and resolved for various project involving federally listed species. LOA has extensive experience in negotiating and consulting with regulatory agencies on the client's behalf, processing permits, testifying at public meetings and court hearings, and updating clients on regulatory issues. The firm can assist clients in developing monitoring protocols or sampling designs to comply with mitigation measures as required by regulatory agencies. In-house graphics capabilities in CAD and GIS are evidenced in draft and final quality maps of wetlands, biotic habitats and pinpoint locations of specific habitat features.

Davinna Ohlson is an experienced wildlife and plant ecologist with extensive skills in wetland ecology, special status species surveys (including both plants and animals), and permitting. Ms. Ohlson has a master's degree in environmental studies with approximately 15 years of relevant experience. Her areas of expertise include the preparation of CEQA/NEPA documents, delineations of jurisdictional waters, permitting, special status species surveys, and monitoring projects. Ms. Ohlson has prepared a number of CEQA/NEPA documents analyzing environmental impacts. This involved researching the existing biotic conditions of a specific site, completing wetland delineations and special status species surveys, and analyzing the measures needed to avoid, minimize, and compensate for any determined impacts. Ms. Ohlson has been trained to perform wetland delineations of jurisdictional waters. Wetland surveys have been conducted in seasonal wetlands, vernal pools, marshes, ephemeral/intermittent/perennial streams, and created wetlands. On numerous occasions, the information gathered during the wetlands surveys has been used to complete various permit applications. Ms. Ohlson has conducted a number of special status plant and animal

species surveys and has been involved in a number of monitoring projects, including both wetland, riparian, and wildlife monitoring.

Neal Kramer has extensive botanical experience with native flora and plant communities in more than 25 different California counties and in Oregon, Idaho and Nevada, as well as in Honduras, Ecuador and Peru. Among the numerous plant inventories he has completed, Mr. Kramer prepared a list of over 500 species for approximately 6200 acres on the Peninsula Open Space Trust Cloverdale/Bolsa Pt. Ranch property in San Mateo County. Rare plant surveys have included more than a dozen different sites in the Bay Area, vernal pools in Fresno and Madera Counties, and Delta marshland in Sacramento County. He is experienced in wetland delineation for a variety of wetland types including vernal pools. Mr. Kramer has a master's degree in forest ecology from the University of Idaho, where he studied plant succession and the role of buried seed banks on forest sites in the Northern Rocky Mountains.

Nathan Hale is an experienced wildlife ecologist with over 8 years of related experience. He has conducted broad scale habitat assessments, Swainson's hawk, burrowing owl, and other nesting bird surveys, fairy shrimp surveys, blunt-nosed leopard lizard surveys, wetland delineations, rare plant surveys, and mitigation and construction monitoring. Nathan has a sound working knowledge of CEQA and NEPA documentation and is well versed on local and federal species regulations. He possesses a master's degree in biology focused on plant community restoration.

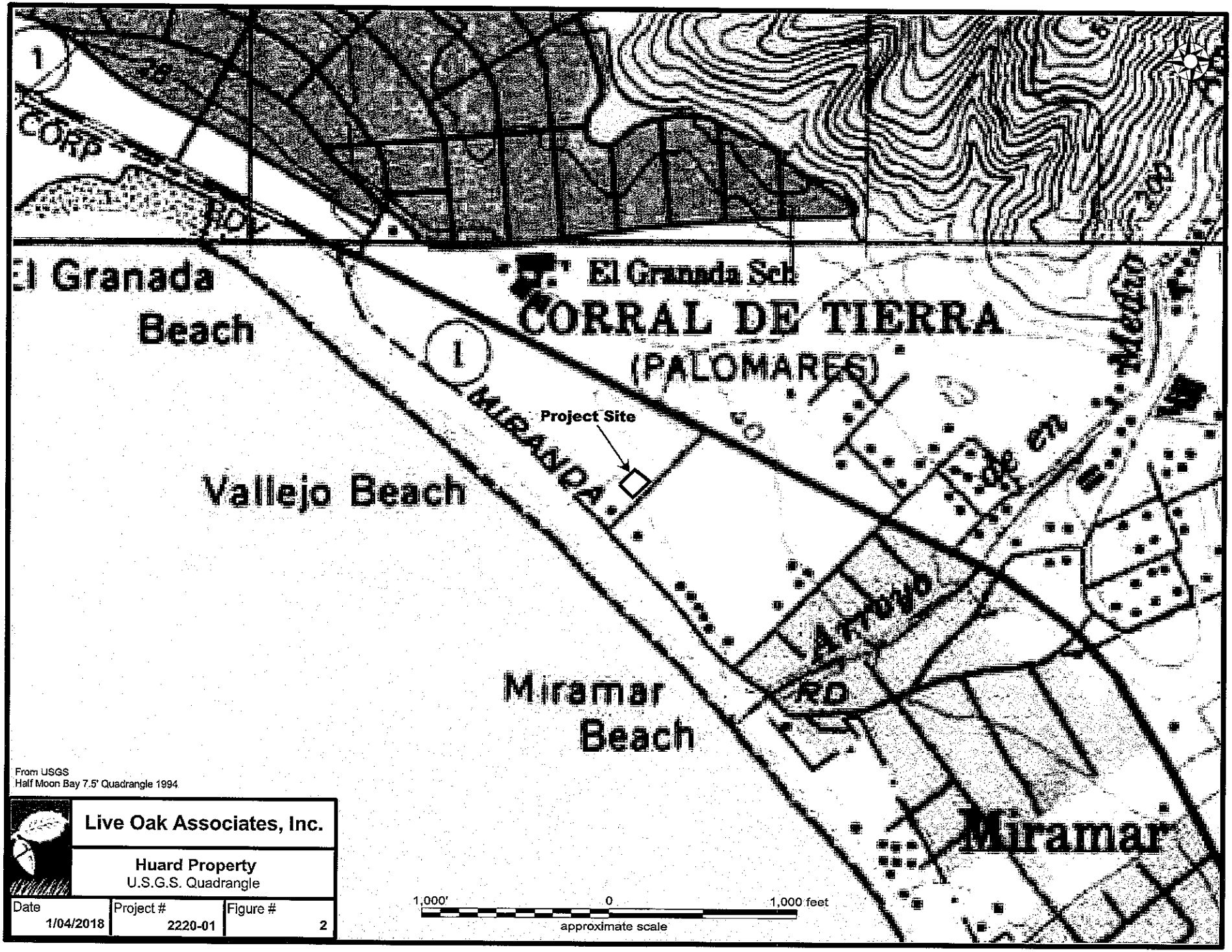
Dr. Mark Jennings is a noted authority on California red-legged frogs and San Francisco garter snakes and has extensive knowledge of the herpetofauna of California. He has published numerous articles and has conducted numerous habitat assessments and pre-construction and monitoring surveys for these species. He possesses extensive familiarity with this region of San Mateo County.

Live Oak Associates, Inc.

Huard Property
Aerial Photo of Site and Surrounding Area

Date	Project #	Figure #
1/04/2018	2220-01	1

1,000' 0 1,000 feet
approximate scale



From USGS
Half Moon Bay 7.5' Quadrangle 1994

Live Oak Associates, Inc.		
Huard Property U.S.G.S. Quadrangle		
Date 1/04/2018	Project # 2220-01	Figure # 2

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT H

LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

MEMORANDUM

TO: PAUL AND RUTH HUARD, OWNERS

FROM: DAVINNA OHLSON, LIVE OAK ASSOCIATES, INC.

SUBJECT: HUARD PROPERTY ON MAGELLAN AVENUE

DATE: MAY 28, 2018

CC: AMY AZAREN, BONE STRUCTURE

Live Oak Associates, Inc. (LOA), prepared a biological report for the Huard property on Magellan Avenue (APNs 048-013-050 and -060) on January 5, 2018. LOA previously prepared a biological report in 2012 for the same property when it was under different ownership.

This memo serves as an outline of and explanation for the differences between the 2018 and 2012 reports. Differences between the two reports are as follows:

- The existing condition of the subject property described in the 2018 report is slightly different from that described in the 2012 report (e.g., the property has been mowed, and some trees have died or been removed). This change in condition did not affect the conclusions about impacts.
- Additional special status plant and wildlife species were analyzed in the 2018 report for their potential to occur on the property. These species did not come up in a search of the California Natural Diversity Data Base (CNDDB) for the property's vicinity in 2012 but did so in 2018 (i.e., occurrences of these additional species in the property's vicinity were reported to the CNDDB since 2012).

While the proposed project on the property has changed due to a change in ownership, our conclusions about the types of impacts resulting from the project are unchanged from the 2012 report. Our recommended measures for mitigating such impacts are also unchanged except for the following:

- The recommended survey window in Mitigation Measure 4 (pre-construction nesting bird surveys) has been updated from that in the 2012 report in order to align with currently-accepted survey protocols.

If you have any questions about this outline, please feel free to contact me at (408) 281-5886 or dohlson@loainc.com at your earliest convenience.

# # #

Oakhurst: P.O. Box 2697 • 39930 Sierra Way, Suite B • Oakhurst, CA 93644 • Phone: (559) 642-4880 • Fax: (559) 642-4883
San Jose: 6840 Via Del Oro, Suite 220 • San Jose, CA 95119 • Phone: (408) 224-8300 • Fax: (408) 224-2411
Truckee: P.O. Box 8810 • Truckee, CA 96161 • Phone: (530) 214-8947

www.loainc.com

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT I

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

May 21, 2018 File No.: 17-2659

Ruemel Panglao, Project Planner
San Mateo County Planning and Building Division
455 County Center
Redwood City, CA 94063

re: PLN2018-00154 / Magellan Ave, Miramar, APN 048013920 / Paul & Ruth Huard

Dear Ruemel Panglao,

Records at this office were reviewed to determine if this project could adversely affect cultural resources. **Please note that use of the term cultural resources includes both archaeological sites and historical buildings and/or structures. The review for possible historic-era building/structures, however, was limited to references currently in our office and should not be considered comprehensive.**

Project Description: Coastside Design Review & CDP (hearing level) for a new 2-story (5,261 s/f) single-family residence with a 2-car garage on a legal parcel (COC recorded; PLN2010-00154); no trees to be removed. (DR Per-Ap completed under PLN2018-00466)

Previous Studies:

XX Study # 46068 (Roop 2008), Study # 33460 (McLachlan 2007), and Study # 3082 (Jackson and Dietz 1970), included approximately 100% of the proposed project area, identified no cultural resources. Further study for cultural resources is not recommended at this time.

Archaeological and Native American Resources Recommendations:

XX Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of San Mateo County have been found in areas marginal to the coast, and inland on ridges, midslope benches, in valleys, near ecotones, and near intermittent and perennial watercourses. The Magellan Avenue project area is located approximately 135 meters from the ocean and historic maps of the area indicate a freshwater creek immediately adjacent to the project area. Given the similarity of one or more of these environmental factors, there is a high potential for unrecorded Native American resources in the proposed Magellan Avenue project area. However, due to the negative findings of the previous studies, no further study for archaeological resources is recommended at this time.

XX We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

Built Environment Recommendations:

XX Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if the project area contains such properties, it is recommended that prior to commencement of project activities, a qualified professional familiar with the architecture and history of San Mateo County conduct a formal CEQA evaluation.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

For your reference, a list of qualified professionals in California that meet the Secretary of the Interior's Standards can be found at http://www.chrisinfo.org. If archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. If you have any questions please give us a call (707) 588-8455.

Sincerely,

Jillian Guldenbrein
Researcher

cc: Paul & Ruth Huard
huard@yahoo.com
rhuard @gmail.com

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT J

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT
NEGATIVE DECLARATION

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *New Zbiczak Single-Family Residence*, when adopted and implemented, will not have a significant impact on the environment.

FILED ENDORSED IN THE OFFICE OF THE COUNTY CLERK RECORDER OF SAN MATEO COUNTY CALIF

MAY 09 2012

MARK CHURCH, County Clerk
By VERONICA MADRID
DEPUTY CLERK

FILE NO.: PLN 2010-00154

OWNER/APPLICANT: Hank and Irene Zbiczak/Neal Hocker

ASSESSOR'S PARCEL NOS.: 048-013-050 and -060

PROJECT LOCATION: Magellan Avenue, Miramar

PROJECT DESCRIPTION: The applicant is requesting approval to construct a new 5,546 sq. ft. single-family residence, including an attached three-car garage on an existing 12,424 sq. ft. parcel, as part of a Coastal Development Permit and Coastside Design Review. The site is located on Magellan Avenue in the unincorporated Miramar area of San Mateo County, within the R-1/S-94/DR/CD Zoning District. No trees are proposed for removal. This project is appealable to the California Coastal Commission.

SITE DESCRIPTION: The project site is a vacant lot located on Magellan Avenue (cross street Mirada Road) in the unincorporated Miramar area of San Mateo County, within a general area of County parkland and undeveloped parcels. The subject site is fairly flat in topography with mixed ground vegetation consisting of native California blackberry and non-native poison hemlock, including a shallow intermittent stream along the northwestern boundary of the site. County parklands northwestward and Magellan Avenue southeast-ward bound this subject parcel. Cabrillo Highway is approximately 325 feet to the east, and the Pacific Ocean is about 450 feet westward of the site.

FINDINGS AND BASIS FOR A NEGATIVE DECLARATION

The Current Planning Section has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that:

1. The project will not adversely affect water or air quality or increase noise levels substantially.

2. The project will not have adverse impacts on the flora or fauna of the area.

3. The project will not degrade the aesthetic quality of the area.

4. The project will not have adverse impacts on traffic or land use.

5. In addition, the project will not:

   a. Create impacts which have the potential to degrade the quality of the environment.

   b. Create impacts which achieve short-term to the disadvantage of long-term environmental goals.

   c. Create impacts for a project which are individually limited, but cumulatively considerable.

   d. Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project is insignificant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

Mitigation Measure 1: Establish a minimum 30-foot buffer zone from the centerline of the stream to the nearest structure in compliance with San Mateo County Local Coastal Program (LCP) Policy 7.11, which requires a 30-foot buffer zone from the midpoint of an intermittent stream absent riparian vegetation.

Mitigation Measure 2: Require a tree removal permit from the County in the event that removal of trees are required as part of the development scope.

Mitigation Measure 3: Implement best management practices (BMPs) for erosion and sediment control during all phases of building to include pre- and post-construction activities.

Mitigation Measure 4: Require a pre-construction site survey of all on-site trees, within a site radius of up to 250 feet, to be conducted by a qualified biologist for the potential presence of raptors, in the event that the building construction activity occurs during the breeding season (February 1 to August 31). Upon successful identification of active nests and to ensure that no species are seriously affected, a disturbance-free buffer shall be established until the young have grown to be independent of their parents, subject to confirmation by the qualified biologist.

Mitigation Measure 5: The applicant shall submit a permanent stormwater management plan in compliance with the County's Drainage Policy and NPDES requirements for review and approval by the Department of Public Works.

Mitigation Measure 6: Noise levels produced by construction shall not exceed the 80-dBA level at any one moment. Construction activity shall be limited to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction operations shall be prohibited on Sunday and any national holiday.

RESPONSIBLE AGENCY CONSULTATION

None.

INITIAL STUDY

The San Mateo County Current Planning Section has reviewed the Environmental Evaluation of this project and has found that the probable environmental impacts are insignificant. A copy of the initial study is attached.

REVIEW PERIOD: May 10, 2012 to May 29, 2012

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning and Building Department, 455 County Center, Second Floor, Redwood City, no later than **5:00 p.m., May 29, 2012.**

CONTACT PERSON

Dennis P. Aguirre
Project Planner, 650/363-1867

Dennis P. Aguirre, Project Planner

DPA:fc – DPAW0265_WFH.DOC
FRM00013(click).doc
(1/11/07)

County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed By Current Planning Section)

I. BACKGROUND

Project Title: New Zbiczak Single-Family Residence

File No.: PLN 2010-00154

Project Location: Magellan Avenue, Miramar

Assessor's Parcel Nos.: 048-013-050 and -060

Applicant/Owner: Neal Hocker/Hank and Irene Zbiczak

Date Environmental Information Form Submitted: March 6, 2012

PROJECT DESCRIPTION

The applicant is requesting approval to construct a new 5,546 sq. ft. single-family residence, including an attached three-car garage on an existing 12,424 sq. ft. parcel, as part of a Coastal Development Permit and Coastside Design Review. The site is located on Magellan Avenue in the unincorporated Miramar area of San Mateo County, within the R-1/S-94/DR/CD Zoning District. No trees are proposed for removal. This project is appealable to the California Coastal Commission.

II. ENVIRONMENTAL ANALYSIS

Any controversial answers or answers needing clarification are explained on an attached sheet. For source, refer to pages 13 and 14.

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
1. LAND SUITABILITY AND GEOLOGY Will (or could) this project:						
a. Involve a unique landform or biological area, such as beaches, sand dunes, marshes, tidelands, or San Francisco Bay? **See Answers to Questions.**			X			B,F,O
b. Involve construction on slope of 15% or greater? **Minimal slope on-site.**	X					E,I
c. Be located in an area of soil instability (subsidence, landslide or severe erosion)? **Not located in or adjacent to such an area.**	X					Bc,D
d. Be located on, or adjacent to a known earthquake fault? **Not located in or adjacent to such an area.**	X					Bc,D
e. Involve Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts? **Project site is designated for residential use.**	X					M
f. Cause erosion or siltation? **Recommended conditions of permit approval included.**		X				M,I
g. Result in damage to soil capability or loss of agricultural land? **Project site is designated for residential use.**	X					A,M

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
h. Be located within a flood hazard area? **Recommended conditions of permit approval included.**		X				G
i. Be located in an area where a high water table may adversely affect land use? **The project is not located in such an area.**	X					D
j. Affect a natural drainage channel or streambed, or watercourse? **See Answers to Questions.**			X			E
2. <u>VEGETATION AND WILDLIFE</u> Will (or could) this project:						
a. Affect federal or state listed rare or endangered species of plant life in the project area? **See Answers to Questions.**			X			F
b. Involve cutting of heritage or significant trees as defined in the County Heritage Tree and Significant Tree Ordinance? **See Answers to Questions.**			X			I,A
c. Be adjacent to or include a habitat food source, water source, nesting place or breeding place for a federal or state listed rare or endangered wildlife species? **See Answers to Questions.**			X			F
d. Significantly affect fish, wildlife, reptiles, or plant life? **See Answers to Questions.**			X			I

	IMPACT					SOURCE
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	
e. Be located inside or within 200 feet of a marine or wildlife reserve? **The project is not located in or within 200 feet of such an area.**	X					E,F,O
f. Infringe on any sensitive habitats? **See Answers to Questions.**			X			F
g. Involve clearing land that is 5,000 sq. ft. or greater (1,000 sq. ft. within a County Scenic Corridor), that has slopes greater than 20% or that is in a sensitive habitat or buffer zone? **None proposed.**	X					I,F,Bb
3. **PHYSICAL RESOURCES** Will (or could) this project:						
a. Result in the removal of a natural resource for commercial purposes (including rock, sand, gravel, oil, trees, minerals or topsoil)? **None proposed.**	X					I
b. Involve grading in excess of 150 cubic yards? **Only minimal grading is proposed.**	X					I
c. Involve lands currently protected under the Williamson Act (agricultural preserve) or an Open Space Easement? **The site is not under agricultural contract or easement.**	X					I
d. Affect any existing or potential agricultural uses? **There are no agricultural uses on or adjacent to the project site.**	X					A,K,M

	IMPACT					SOURCE
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	
4. AIR QUALITY, WATER QUALITY, SONIC Will (or could) this project:						
a. Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area? **See Answers to Questions.**		X				I,N,R
b. Involve the burning of any material, including brush, trees and construction materials? **None proposed.**	X					I
c. Be expected to result in the generation of noise levels in excess of those currently existing in the area, after construction? **None proposed.**	X					Ba,I
d. Involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, other toxic substances, or radioactive material? **None proposed.**	X					I
e. Be subject to noise levels in excess of levels determined appropriate according to the County Noise Ordinance or other standard? **The project is not subject to excess noise levels.**		X				A,Ba,Bc
f. Generate noise levels in excess of levels determined appropriate according to the County Noise Ordinance standard? **Recommended conditions of permit approval included.**			X			I
g. Generate polluted or increased surface water runoff or affect groundwater resources? **Recommended conditions of permit approval included.**			X			I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
h. Require installation of a septic tank/leachfield sewage disposal system or require hookup to an existing collection system which is at or over capacity? **None proposed.**	X					S
5. **TRANSPORTATION** Will (or could) this project:						
a. Affect access to commercial establishments, schools, parks, etc.? **None proposed.**		X				A,I
b. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns? **None proposed.**	X					A,I
c. Result in noticeable changes in vehicular traffic patterns or volumes (including bicycles)? **None proposed.**	X					I
d. Involve the use of off-road vehicles of any kind (such as trail bikes)? **None proposed.**	X					I
e. Result in or increase traffic hazards? **None proposed.**		X				S
f. Provide for alternative transportation amenities such as bike racks? **None proposed.**	X					I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
g. Generate traffic which will adversely affect the traffic carrying capacity of any roadway? **None proposed.**	X					S
6. **LAND USE AND GENERAL PLANS** Will (or could) this project:						
a. Result in the congregating of more than 50 people on a regular basis? **None proposed.**	X					I
b. Result in the introduction of activities not currently found within the community? **None proposed.**	X					I
c. Employ equipment which could interfere with existing communication and/or defense systems? **None proposed.**	X					I
d. Result in any changes in land use, either on or off the project site? **None proposed.**	X					I
e. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)? **See Answers to Questions.**		X				I,Q,S

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
f. Adversely affect the capacity of any public facilities (streets, highways, freeways, public transit, schools, parks, police, fire, hospitals), public utilities (electrical, water and gas supply lines, sewage and storm drain discharge lines, sanitary landfills) or public works serving the site? **No impact.**	X					I,S
g. Generate any demands that will cause a public facility or utility to reach or exceed its capacity? **No impact.**	X					I,S
h. Be adjacent to or within 500 feet of an existing or planned public facility? **See Answers to Questions.**		X				A
i. Create significant amounts of solid waste or litter? **No impact.**	X					I
j. Substantially increase fossil fuel consumption (electricity, oil, natural gas, coal, etc.)? **No impact.**	X					I
k. Require an amendment to or exception from adopted general plans, specific plans, or community policies or goals? **None proposed.**	X					B
l. Involve a change of zoning? **None proposed.**	X					C
m. Require the relocation of people or businesses? **None proposed.**	X					I

	IMPACT					
		YES				
	NO	Not Significant	Significant Unless Mitigated	Significant	Cumulative	SOURCE
n. Reduce the supply of low-income housing? **None proposed.**	X					I
o. Result in possible interference with an emergency response plan or emergency evacuation plan? **None proposed.**	X					S
p. Result in creation of or exposure to a potential health hazard? **No impact.**	X					S
7. **AESTHETIC, CULTURAL AND HISTORIC** Will (or could) this project:						
a. Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor? **Recommended conditions of permit approval included.**		X				A,Bb
b. Obstruct scenic views from existing residential areas, public lands, public water body, or roads? **Recommended conditions of permit approval included.**		X				A,I
c. Involve the construction of buildings or structures in excess of three stories or 36 feet in height? **None proposed.**	X					I
d. Directly or indirectly affect historical or archaeological resources on or near the site? **No impact.**	X					H
e. Visually intrude into an area having natural scenic qualities? **Recommended conditions of permit approval included.**		X				A,I

III. **RESPONSIBLE AGENCIES.** Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
State Water Resources Control Board		X	
Regional Water Quality Control Board		X	
State Department of Public Health		X	
San Francisco Bay Conservation and Development Commission (BCDC)		X	
U.S. Environmental Protection Agency (EPA)		X	
County Airport Land Use Commission (ALUC)		X	
CalTrans		X	
Bay Area Air Quality Management District		X	
U.S. Fish and Wildlife Service		X	
Coastal Commission		X	
City		X	
Sewer/Water District:		X	
Other:		X	

IV. MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.	X	
Other mitigation measures are needed.	X	

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Establish a minimum 30-foot buffer zone from the centerline of the stream to the nearest structure in compliance with San Mateo County Local Coastal Program (LCP) Policy 7.11, which requires a 30-foot buffer zone from the midpoint of an intermittent stream absent riparian vegetation.

Mitigation Measure 2: Require a tree removal permit from the County in the event that removal of trees are required as part of the development scope.

Mitigation Measure 3: Implement best management practices (BMPs) for erosion and sediment control during all phases of building to include pre- and post-construction activities.

Mitigation Measure 4: Require a pre-construction site survey of all on-site trees, within a site radius of up to 250 feet, to be conducted by a qualified biologist for the potential presence of raptors, in the event that the building construction activity occurs during the breeding season (February 1 to August 31). Upon successful identification of active nests and to ensure that no species are seriously affected, a disturbance-free buffer shall be established until the young have grown to be independent of their parents, subject to confirmation by the qualified biologist.

Mitigation Measure 5: The applicant shall submit a permanent stormwater management plan in compliance with the County's Drainage Policy and NPDES requirements for review and approval by the Department of Public Works.

Mitigation Measure 6: Noise levels produced by construction shall not exceed the 80-dBA level at any one moment. Construction activity shall be limited to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction operations shall be prohibited on Sunday and any national holiday.

V. MANDATORY FINDINGS OF SIGNIFICANCE

		Yes	No
1.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X
2.	Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?		X
3.	Does the project have possible environmental effects which are individually limited, but cumulatively considerable?		X
4.	Would the project cause substantial adverse effects on human beings, either directly or indirectly?		X

On the basis of this initial evaluation:

_____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Current Planning Section.

__X__ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because of the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Dennis P. Aguirre

Project Planner
(Title)

MAY 9, 2012
Date

VI. SOURCE LIST

A. Field Inspection

B. County General Plan 1986

a. General Plan Chapters 1-16
b. Local Coastal Program (LCP) (Area Plan)
c. Skyline Area General Plan Amendment
d. Montara-Moss Beach-El Granada Community Plan
e. Emerald Lake Hills Community Plan

C. County Ordinance Code

D. Geotechnical Maps

1. USGS Basic Data Contributions

a. #43 Landslide Susceptibility
b. #44 Active Faults
c. #45 High Water Table

2. Geotechnical Hazards Synthesis Maps

E. USGS Quadrangle Maps, San Mateo County 1970 Series (See F. and H.)

F. San Mateo County Rare and Endangered Species Maps, or Sensitive Habitats Maps

G. Flood Insurance Rate Map – National Flood Insurance Program

H. County Archaeologic Resource Inventory (Prepared by S. Dietz, A.C.R.S.) Procedures for Protection of Historic and Cultural Properties – 36 CFR 800 (See R.)

I. Project Plans or EIF

J. Airport Land Use Committee Plans, San Mateo County Airports Plan

K. Aerial Photography or Real Estate Atlas – REDI

1. Aerial Photographs, 1941, 1953, 1956, 1960, 1963, 1970
2. Aerial Photographs, 1981
3. Coast Aerial Photos/Slides, San Francisco County Line to Año Nuevo Point, 1971
4. Historic Photos, 1928-1937

L. Williamson Act Maps

M. Soil Survey, San Mateo Area, U.S. Department of Agriculture, May 1961

N. Air Pollution Isopleth Maps – Bay Area Air Pollution Control District

O. California Natural Areas Coordinating Council Maps (See F. and H.)

P. Forest Resources Study (1971)

Q. Experience with Other Projects of this Size and Nature

R. Environmental Regulations and Standards:

Federal	–	Review Procedures for CDBG Programs	24 CFR Part 58
	–	NEPA 24 CFR 1500-1508	
	–	Protection of Historic and Cultural Properties	36 CFR Part 800
	–	National Register of Historic Places	
	–	Floodplain Management	Executive Order 11988
	–	Protection of Wetlands	Executive Order 11990
	–	Endangered and Threatened Species	
	–	Noise Abatement and Control	24 CFR Part 51B
	–	Explosive and Flammable Operations	24 CFR 51C
	–	Toxic Chemicals/Radioactive Materials	HUD 79-33
	–	Airport Clear Zones and APZ	24 CFR 51D
State	–	Ambient Air Quality Standards	Article 4, Section 1092
	–	Noise Insulation Standards	

S. Consultation with Departments and Agencies:

a. County Health Department
b. City Fire Department
c. California Department of Forestry
d. Department of Public Works
e. Disaster Preparedness Office
f. Other

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FRM00018 table format.doc
(1/22/07)

COUNTY OF SAN MATEO
Planning and Building Department

Initial Study Pursuant to CEQA
Project Narrative and Answers to Questions for the Negative Declaration
File Number PLN 2010-00154
New Zbiczak Single-Family Residence

PROJECT DESCRIPTION

The applicant is requesting approval to construct a new 5,546 sq. ft. single-family residence, including an attached three-car garage on an existing 12,424 sq. ft. parcel, as part of a Coastal Development Permit and Coastside Design Review. The site is located on Magellan Avenue in the unincorporated Miramar area of San Mateo County, within the R-1/S-94/DR/CD Zoning District. No trees are proposed for removal. This project is appealable to the California Coastal Commission.

SITE DESCRIPTION

The project site is a vacant lot located on Magellan Avenue (cross street Mirada Road) in the unincorporated Miramar area of San Mateo County, within a general area of County parkland and undeveloped parcels. The subject site is fairly flat in topography with mixed ground vegetation consisting of native California blackberry and non-native poison hemlock, including a shallow intermittent stream along the northwestern boundary of the site. County parklands northwestward and Magellan Avenue southeastward bound this subject parcel. Cabrillo Highway is approximately 325 feet to the east, and the Pacific Ocean is about 450 feet westward of the site.

ANSWERS TO QUESTIONS

1. LAND SUITABILITY AND GEOLOGY

Will (or could) this project:

a. Involve a unique landform or biological area, such as beaches, sand dunes, marshes, tidelands, or San Francisco Bay?

Yes, Significant Unless Mitigated. Despite the absence of sensitive communities on-site, the shallow stream located along the northwestern boundary of the subject site would be considered a sensitive habitat. The existing on-site vegetation is mixed, consisting of native California blackberry and non-native poison hemlock, including Monterey cypress and Monterey pine trees around the site's periphery. A biological report prepared by Live Oak Associates, Inc., was submitted to staff that includes mitigation measures to address four potential significant impacts that could result from the project: (1) impacts to the intermittent stream, (2) future removal of trees, (3) indirect impacts from runoff or erosion, and (4) impacts on special status bird and common raptor species.

Based on this report, special status plants or animal species are known to occur only within the site's vicinity, with the white-tailed kite expected to potentially occur on-site. The potential impacts involve disturbance of animal and plant species within the site's vicinity, in the event of occurrence, including drainage, erosion and runoff during project construction.

The following mitigation measures are, therefore, recommended to ensure that potential future impacts are mitigated to a less than significant level:

Mitigation Measure 1: Establish a minimum 30-foot buffer zone from the centerline of the stream to the nearest structure in compliance with San Mateo County Local Coastal Program (LCP) Policy 7.11, which requires a 30-foot buffer zone from the midpoint of an intermittent stream absent riparian vegetation.

Mitigation Measure 2: Require a tree removal permit from the County in the event that removal of trees are required as part of the development scope.

Mitigation Measure 3: Implement best management practices (BMPs) for erosion and sediment control during all phases of building to include pre- and post-construction activities.

Mitigation Measure 4: Require a pre-construction site survey of all on-site trees, within a site radius of up to 250 feet, to be conducted by a qualified biologist for the potential presence of raptors, in the event that the building construction activity occurs during the breeding season (February 1 to August 31). Upon successful identification of active nests and to ensure that no species are seriously affected, a disturbance-free buffer shall be established until the young have grown to be independent of their parents, subject to confirmation by the qualified biologist.

b. Involve construction on slope of 15% or greater?

No Impact. The subject site's average slope of less than 15% involves minimal grading to allow for the existing topography to remain fairly intact.

c. Be located in an area of soil instability (subsidence, landslide or severe erosion)?

No Impact. The parcel has been designated as an area with Landslide Susceptibility I based on information gathered from the U.S. Geological Survey. Such areas have the lowest susceptibility to soil instability and a decreased potential for occurrences of a landslide.

d. Be located on, or adjacent to a known earthquake fault?

No Impact. The project site is not located on or adjacent to a known earthquake fault. The Geotechnical Section will review the proposal when an application for the required building permit is submitted to verify that there are no geotechnical issues.

e. Involve Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?

No Impact. The project site is located on land that has been identified as having Class III soils; however, the parcel has been designated for residential use and is not intended for agricultural use or production.

f. Cause erosion or siltation?

Yes, Not Significant. While minimal grading is proposed for the project, erosion and siltation are likely to occur during construction activities on the property. The following conditions for project approval are recommended, in addition to Mitigation Measure 3 included in Question 1.a. above to minimize any potential issues:

Condition 1: Prior to the beginning of any construction or grading activities, the applicant shall implement the approved erosion and sediment control plan. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 15 and April 15. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

c. Controlling and preventing 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.

d. Using sediment controls or filtration to remove sediment when dewatering the site and obtaining all necessary permits.

e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.

g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

h. Performing clearing and earth-moving activities only during dry weather.

i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

j. Limiting construction access routes and stabilizing designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. The contractor shall train and provide instructions to all employees and subcontractors regarding the construction best management practices.

m. The approved erosion and sediment control plan shall be implemented prior to the beginning of construction.

Condition 2: The applicant shall implement erosion control measures prior to the beginning of grading or construction operations. Such activities shall not commence until the associated building permit for the project has been issued.

Condition 3: The project shall include water runoff prevention measures for the operation and maintenance of the project for the review and approval by the Community Development Director. The project shall identify best management practices (BMPs) appropriate to the uses conducted on-site to effectively prohibit the discharge of pollutants with stormwater runoff and other water runoff produced from the project.

g. Result in damage to soil capability or loss of agricultural land?

No Impact. Reference response to Question 1.e. above.

h. Be located within a flood hazard area?

Yes, Not Significant. The parcel is located in Flood Zone A8, designated as a 100-year flood area, where base flood elevations and flood hazard factors have been determined. The proposed structure is compliant with all applicable building setbacks for this flood zone.

i. **Be located in an area where a high water table may adversely affect land use?**

No Impact. There is no indication of the presence of a high water table in this area.

j. **Affect a natural drainage channel or streambed, or watercourse?**

Yes, Significant Unless Mitigated. To prevent potential runoff into the intermittent creek, the following condition for project approval is recommended, in addition to the mitigation measures discussed in Questions 1.a. and 1.f. above.

Mitigation Measure 5: The applicant shall submit a permanent stormwater management plan in compliance with the County's Drainage Policy and NPDES requirements for review and approval by the Department of Public Works.

2. **VEGETATION AND WILDLIFE**

Will (or could) this project:

a. **Affect federal or state listed rare or endangered species of plant life in the project area?**

Yes, Significant Unless Mitigated. Reference staff's response to Question 1.a. above.

b. **Involve cutting of heritage or significant trees as defined in the County Heritage Tree and Significant Tree Ordinance?**

Yes, Significant Unless Mitigated. Reference staff's response to Question 1.a. above.

c. **Be adjacent to or include a habitat food source, water source, nesting place or breeding place for a federal or state listed rare or endangered wildlife species?**

Yes, Significant Unless Mitigated. Reference staff's response to Question 1.a. above.

d. **Significantly affect fish, wildlife, reptiles, or plant life?**

Yes, Significant Unless Mitigated. As previously discussed in Question 1, there is potential on-site occurrence for the white-tailed kite. The mitigation measures included in the discussion for Question 1.a. above are therefore recommended.

e. Be located inside or within 200 feet of a marine or wildlife reserve?

No Impact. The proposed project is not located within 200 feet of a marine or wildlife reserve.

f. Infringe on any sensitive habitats?

Yes, Significant Unless Mitigated. Reference staff's response to Question 1.a. above.

g. Involve clearing land that is 5,000 sq. ft. or greater (1,000 sq. ft. within a County Scenic Corridor), that has slopes greater than 20% or that is in a sensitive habitat or buffer zone?

No Impact. The land clearing proposed for the project is less than 5,000 sq. ft.

3. PHYSICAL RESOURCES

Will (or could) this project:

a. Result in the removal of a natural resource for commercial purposes (including rock, sand, gravel, oil, trees, minerals or topsoil)?

No Impact. Based on review of the County General Plan, there are no mapped natural resources on the subject property that would be used for commercial purposes.

b. Involve grading in excess of 150 cubic yards?

No Impact. The proposed grading for the project is less that 150 cubic yards and is therefore considered minimal.

c. Involve lands currently protected under the Williamson Act (agricultural preserve) or an Open Space Easement?

No Impact. The project property is currently not under the Williamson Act or an Open Space Easement.

d. Affect any existing or potential agricultural uses?

No Impact. The project is not located on an agricultural site.

4. AIR QUALITY, WATER QUALITY, SONIC

Will (or could) this project:

a. Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?

Yes, Not Significant. The construction of a new residence, attached garage, and driveway may result in temporary generation of pollutants related to construction. However, the project would not result in the generation of a significant level of pollutants. Section 2-1-113 (*Exemption, Sources and Operations*) of the General Requirements of the Bay Area Air Quality Management District exempts sources of air pollution associated with construction of a single-family dwelling used solely for residential purposes, as well as road construction. The project does not involve the demolition of any structures or portion of structures. No additional mitigation measures are necessary.

b. Involve the burning of any material, including brush, trees and construction materials?

No Impact. The project does not involve the burning of any material.

c. Be expected to result in the generation of noise levels in excess of those currently existing in the area, after construction?

No Impact. The project will not generate noise levels in excess of those currently existing in the area. The surrounding area is residential, and the addition of one single-family residence in this area would not increase noise levels.

d. Involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, other toxic substances, or radioactive material?

No Impact. The project does not involve the application, use or disposal of potentially hazardous materials as the proposed project involves a new single-family residence.

e. Be subject to noise levels in excess of levels determined appropriate according to the County Noise Ordinance or other standard?

Yes, Not Significant. The subject property is located within a mapped Noise Impact Area. This area is defined as experiencing a Community Noise Exposure Level (CNEL) of 60 or more. Noise levels may occasionally increase due to traffic along Cabrillo Highway. However, noise generated from traffic along this

main corridor should be brief in nature and not significantly impact the project. Furthermore, the new residence will be located approximately 300 feet from Cabrillo Highway. Therefore, any increase in noise levels along the highway would only slightly affect the project area, if at all.

f. Generate noise levels in excess of levels determined appropriate according to the County Noise Ordinance standard?

Yes, Significant Unless Mitigated. While this project will not generate noise levels in excess of appropriate levels once implemented, during construction activities, increased noise levels may occur. However, noise sources associated with demolition, construction or grading of any real property are exempt from the County Noise Ordinance provided these activities occur during designated timeframes. The following mitigation measure is therefore recommended:

Mitigation Measure 6: Noise levels produced by construction shall not exceed the 80-dBA level at any one moment. Construction activity shall be limited to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction operations shall be prohibited on Sunday and any national holiday.

g. Generate polluted or increased surface water runoff or affect groundwater resources?

Yes, Significant Unless Mitigated. Reference staff's response to Question 1.f. above.

h. Require installation of a septic tank/leachfield sewage disposal system or require hookup to an existing collection system which is at or over capacity?

No Impact. The project is located within the Granada Sanitary District service area. During the building permit phase of the project, the applicant will be required to secure a sewer permit from the District, and verify that a permit has been approved prior to issuance of the building permit.

5. TRANSPORTATION

Will (or could) this project:

a. Affect access to commercial establishments, schools, parks, etc.?

Yes, Not Significant. The site is located in a residential zone and will not affect access to the adjacent parkland.

b. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?

No Impact. The proposed single-family residence will not increase the pedestrian traffic nor change the pedestrian patterns of the area.

c. Result in noticeable changes in vehicular traffic patterns or volumes (including bicycles)?

No Impact. The new residence would not result in noticeable changes in either vehicular traffic or volumes.

d. Involve the use of off-road vehicles of any kind (such as trail bikes)?

No Impact. The project does not involve the use of off-road vehicles.

e. Result in or increase traffic hazards?

Yes, Not Significant. During construction of the proposed project, an increase in traffic hazards in the area may occur. However, this will be temporary, and once implemented, the project itself would not result in or increase traffic hazards.

f. Provide for alternative transportation amenities such as bike racks?

No Impact. Alternative transportation amenities are not required as part of this project.

g. Generate traffic which will adversely affect the traffic carrying capacity of any roadway?

No Impact. The traffic volume for this residential district will remain intact.

6. LAND USE AND GENERAL PLANS

Will (or could) this project:

a. Result in the congregating of more than 50 people on a regular basis?

No Impact. The proposed project would not result in the congregation of more than 50 people on a regular basis.

b. Result in the introduction of activities not currently found within the community?

No Impact. The proposed project would not result in the introduction of new activities in this residential area.

c. **Employ equipment which could interfere with existing communication and/or defense systems?**

No Impact. The proposed project would not employ equipment that could interfere with existing communication and/or defense systems.

d. **Result in any changes in land use, either on or off the project site?**

No Impact. The project will introduce a single-family residence on an undeveloped parcel in an area zoned for residential development.

e. **Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?**

Yes, Not Significant. The addition of a new residence on a vacant parcel designated for residential use will not encourage additional off-site development. While implementation of the proposed project would result in a new residential unit in the area, the location of the property in a residentially zoned district allows for such an increase. Further development of the property, other than accessory structures appurtenant to the main dwelling, is restricted. Therefore, any increase to the development intensity of the area is minimal.

f. **Adversely affect the capacity of any public facilities (streets, highways, freeways, public transit, schools, parks, police, fire, hospitals), public utilities (electrical, water and gas supply lines, sewage and storm drain discharge lines, sanitary landfills) or public works serving the site?**

No Impact. The proposed project would not adversely affect the capacity of any public utilities. Any use of public facilities and other public utilities would be minimal and similar to that of a standard single-family dwelling and associated residents.

Preliminary indications are that sewer and water service can be provided by Granada Sanitary and CCWD, respectively.

g. **Generate any demands that will cause a public facility or utility to reach or exceed its capacity?**

No Impact. The proposed project will not cause a public facility or utility to reach or exceed its capacity.

h. Be adjacent to or within 500 feet of an existing or planned public facility?

Yes, Not Significant. Refer to staff's response to Question 5.a. above.

i. Create significant amounts of solid waste or litter?

No Impact. The proposed project may result in slight amounts of solid waste or litter as a result of new residents in the area. However, the amount would be typical to that of any single-family residence and would not be considered significant.

j. Substantially increase fossil fuel consumption (electricity, oil, natural gas, coal, etc.)?

No Impact. The proposed project would not substantially increase fossil fuel consumption, as the amount of any consumption would be typical to that of any single-family residence.

k. Require an amendment to or exception from adopted general plans, specific plans, or community policies or goals?

No Impact. The project does not require an amendment to or exception from adopted general plans, specific plans, or community policies or goals.

l. Involve a change of zoning?

No Impact. The proposed project does not require a change in zoning.

m. Require the relocation of people or businesses?

No Impact. The proposal would not require the relocation of people or businesses.

n. Reduce the supply of low-income housing?

No Impact. The proposed project does not include or replace any low-income housing.

o. Result in possible interference with an emergency response plan or emergency evacuation plan?

No Impact. The proposed project would not interfere with any emergency response or evacuation plans.

p. Result in creation of or exposure to a potential health hazard?

No Impact. The proposed project does not involve any activities that would result in the creation of or exposure to a potential health hazard.

7. AESTHETIC, CULTURAL AND HISTORIC

Will (or could) this project:

a. Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?

Yes, Not Significant. The proposed project site is located within the designated Cabrillo Highway County Scenic Corridor. This area has been designated as a scenic corridor due to its surrounding natural scenic views and qualities. The Coastside Design Review Committee (Committee) considered the project at its November 10, 2011 meeting, and recommended approval. Based on the project's compliance with the Coastside Design Review Standards, and subject to the conditions for project approval in order to minimize any potential issues, the Committee recommended as follows:

Condition 4: The project shall be constructed in compliance with the plans approved by the Coastside Design Review Committee on November 10, 2011. Any changes or revisions to the approved plans shall be submitted to the Coastside Design Review Officer for review and approval prior to implementation. Minor adjustments to the project may be approved by the Coastside Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Alternatively, the Coastside Design Review Officer may refer consideration of the revisions to the Coastside Design Review Committee, with applicable fees to be paid.

Condition 5: The applicant shall submit the following items and/or indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee.

a. Matching of the middle garage door detail with the right garage door's detail to include the post and trellis elements.

b. Enclosure of the spaces below all exterior stairs.

c. Submittal of the color scheme for all proposed shingles comprising of a shade midway between the trim and body color.

d. Installation of a bellyband along the entire right side elevation façade area.

e. In connection with the rear exterior stairs, replacement of the originally proposed rear first flight railing design with an enclosure, to include banister capping.

f. Matching of the gable and vertical trims and wall shingle treatments, enclosing the central portion of the left elevation with the central portion of the right side elevation, enclosing the first and second floor windows, exclusive of the first floor garage pop-out façade area.

g. Matching the rear second story covered porch area with the front entry design to include matching columns.

h. Removal of the front right corner hip roof to match the left front corner gable roof design.

i. Reduction of the second floor master bedroom window height sizes along right side elevation to standard dimensions.

j. As an added rear entryway feature, inclusion of a first floor shed roof supported by three posts that covers and proportionally spans the central door and window along this rear elevation.

k. Removal of the first story left side roof overhang located at the rear elevation.

l. Removal of the central three-panel window element located on the second floor rear elevation and replace with a single window and roof design to match the middle second story left side elevation treatment.

m. Placement of the structure closer northeastward reoriented at an increased counter-clockwise angle.

n. Planting of cypress trees and native plants along the north and east property lines, including retention of proposed and existing planting along the west property line to preserve the natural look of the area, in keeping with the site's close proximity to a public park.

o. Installation of natural colored redwood fences.

p. Inclusion of a driveway layout based on the retention of the two cypress trees initially proposed for removal and the reorientation of the structure as specified in Condition Nos. 4.m and 4.n.

b. Obstruct scenic views from existing residential areas, public lands, public water body, or roads?

Yes, Not Significant. In addition to the discussion in Question 7.a. above, views of the ocean are still substantially available along Magellan Avenue westward, which is the primary public road impacted by this development. Reduction of views along this public road will inevitably be unavoidable as a result of future

development on parcels in this neighborhood area. County public parkland southward of this site serves as an alternative vista area.

c. Involve the construction of buildings or structures in excess of three stories or 36 feet in height?

No Impact. The proposed single-family residence does not exceed 36 feet in height.

d. Directly or indirectly affect historical or archaeological resources on or near the site?

No Impact. There are no known historical or archaeological resources on or near the site.

e. Visually intrude into an area having natural scenic qualities?

Yes, Not Significant. Refer to staff's response to Question 7.a. above.

ATTACHMENTS

A. Vicinity Map
B. Project Plans
C. Live Oak Associates, Inc., Biological Impact Report – March 2012

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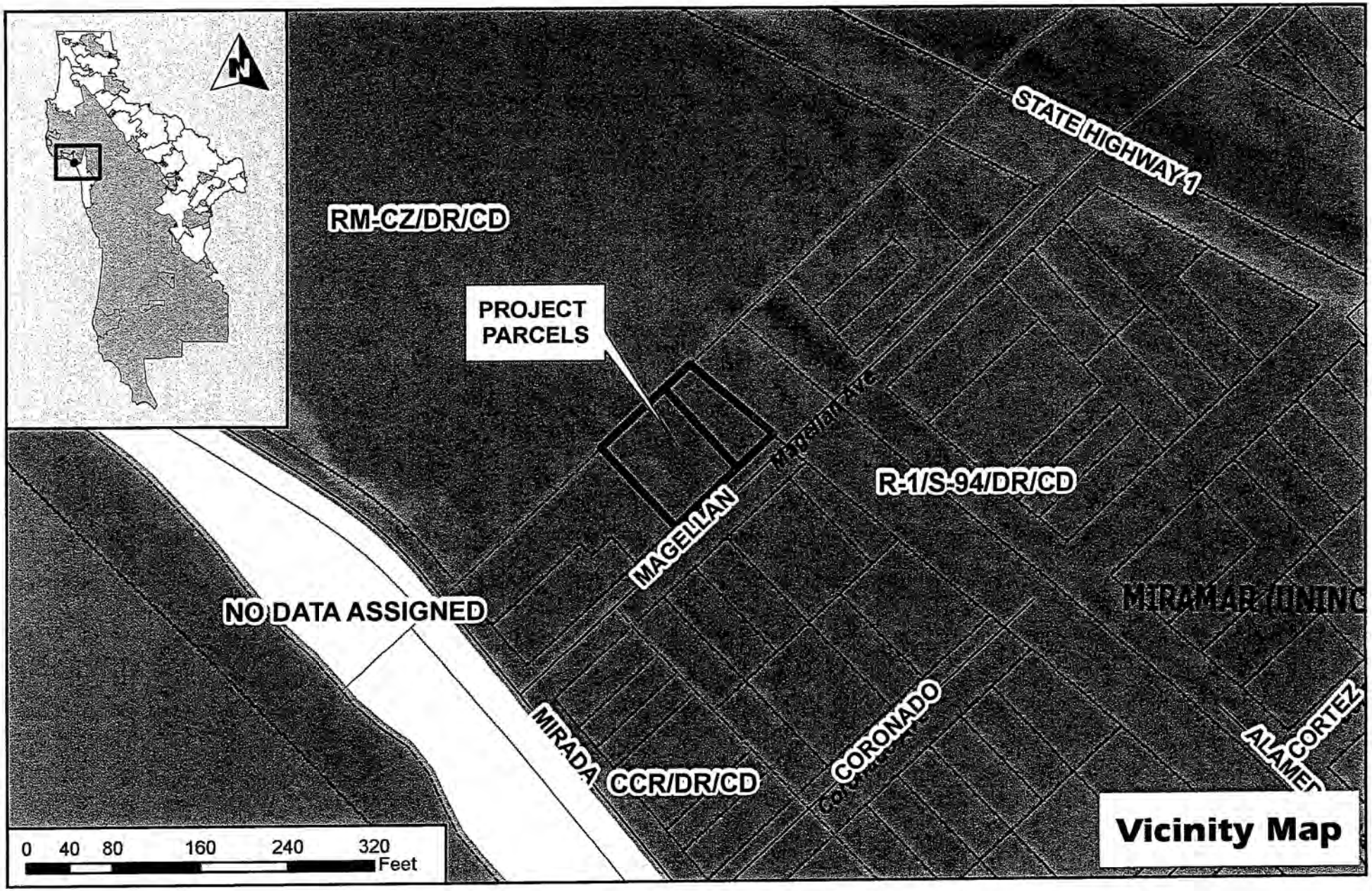

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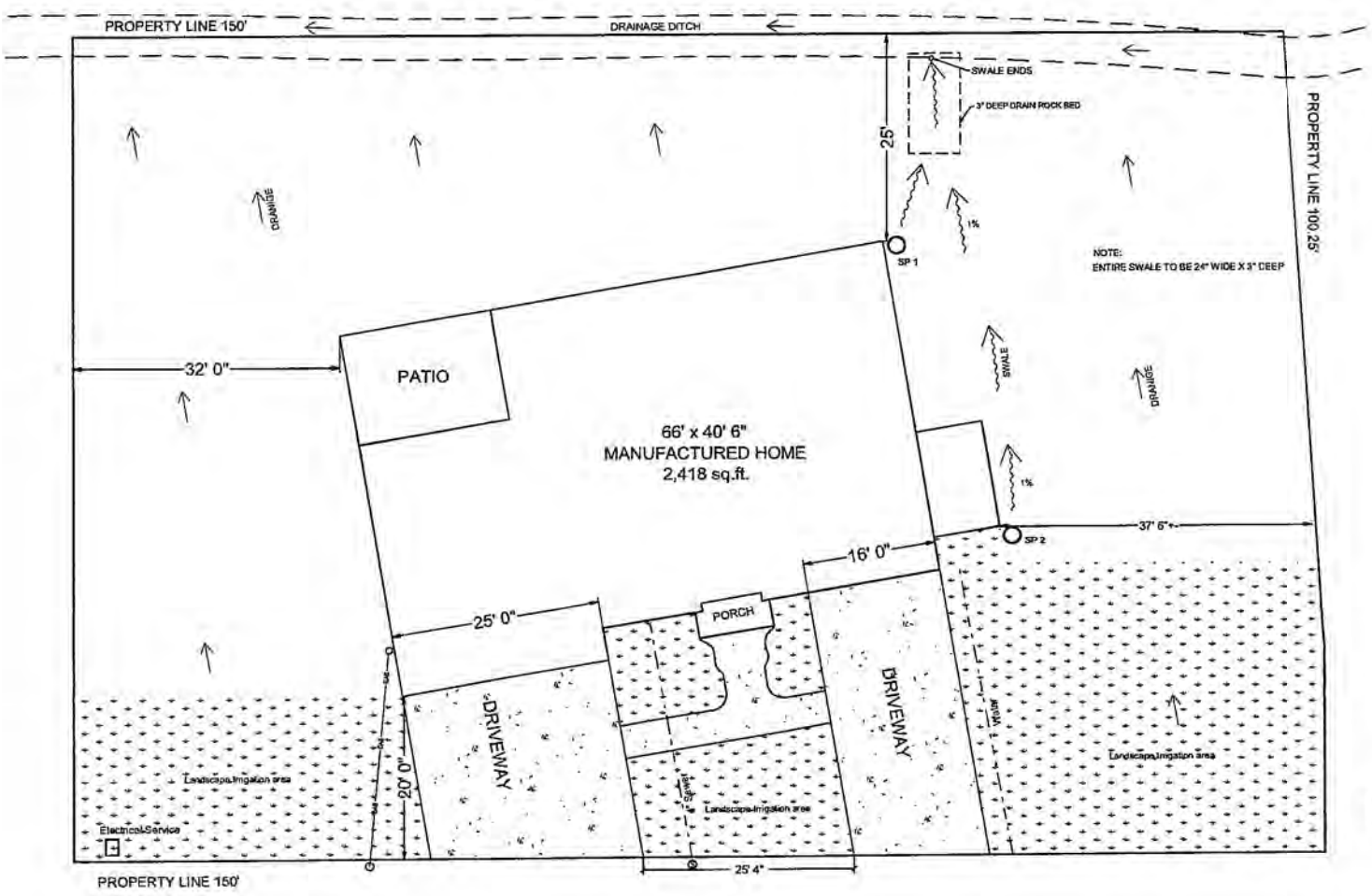
ATTACHMENT A

CURRENT CODE
2007 CBC
CEC
CPC
CMC

Hank and Irene Zbiczak
136 Santa Rosa Avenue
San Francisco , CA 94112

M & L N
DESIGNING
TEL.(916)366-9731
3654 Goldsboro Ct.
Sacramento CA 95827

Note
Per FEMA and San Mateo
Building requirements.



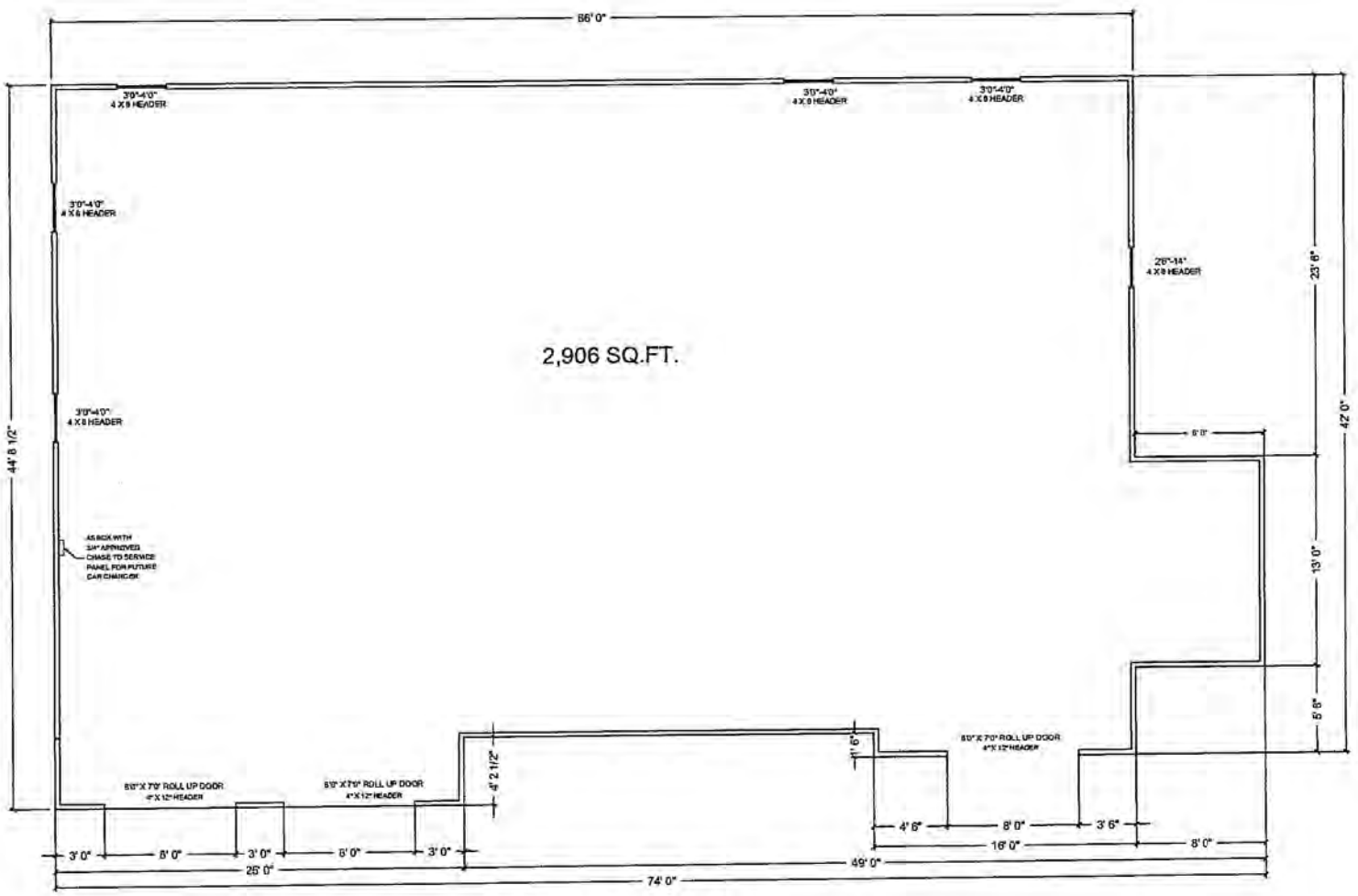
MAGELLAN AVE.

FIRE DEPARTMENT NOTES
1. PROVIDE ILLUMINATED ADDRESSING LOCATED ON THE BUILDING IN SUCH A MANNER AS TO BE VISIBLE AND LEGIBLE FROM THE STREET DAY OR NIGHT.

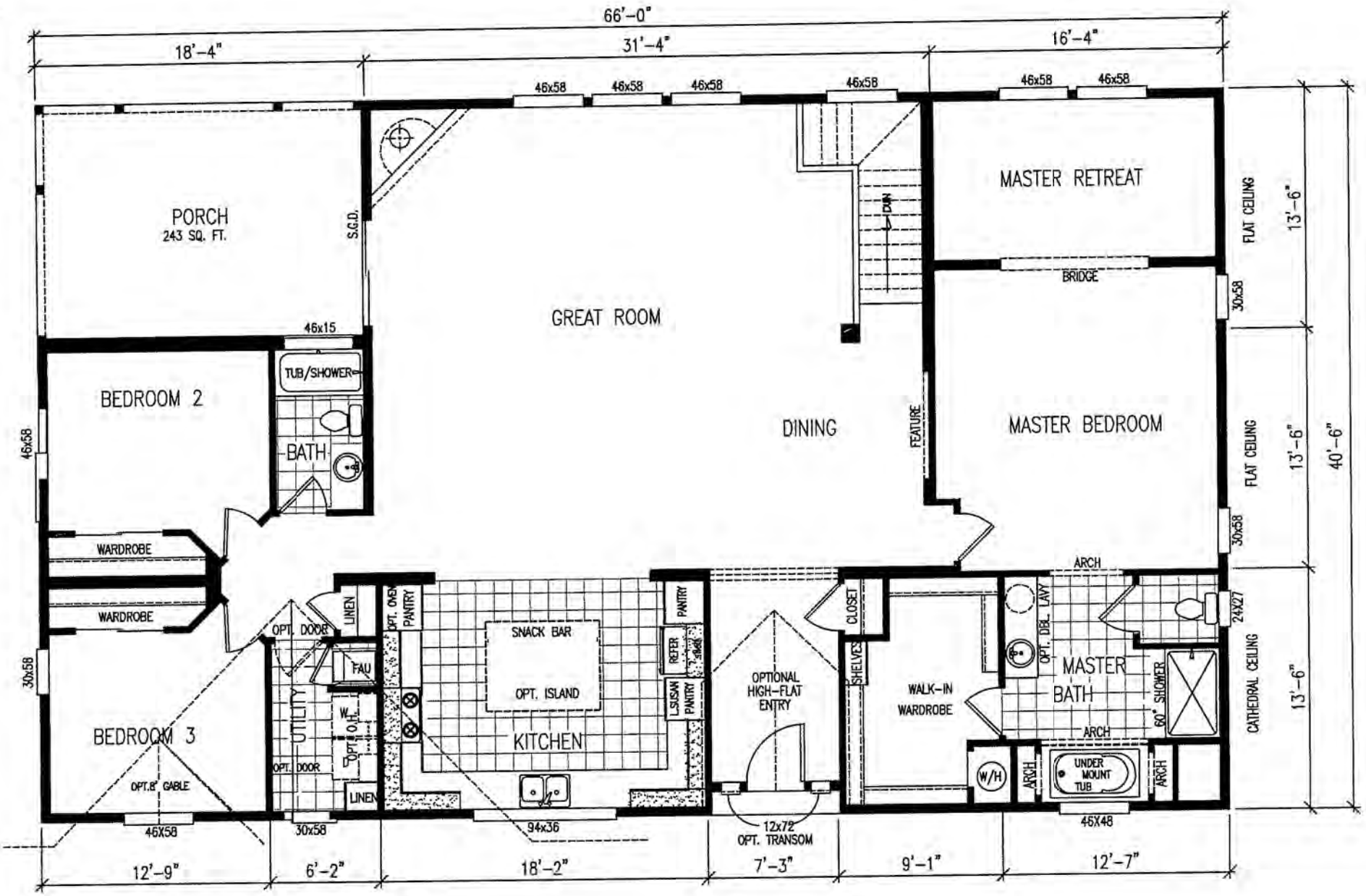
PLOT PLAN
SCALE: 1/8" = 1' 0"

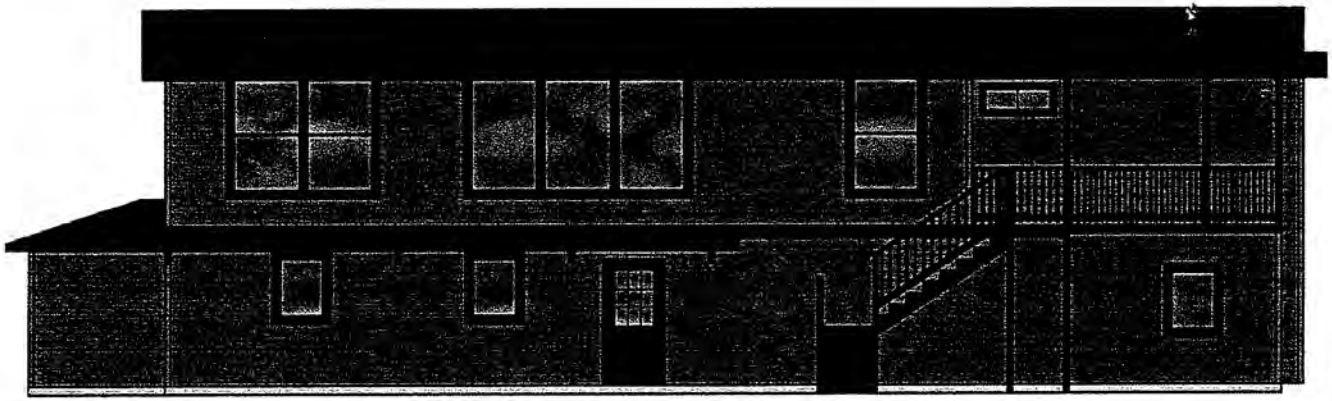
NORTH

ATTACHMENT B

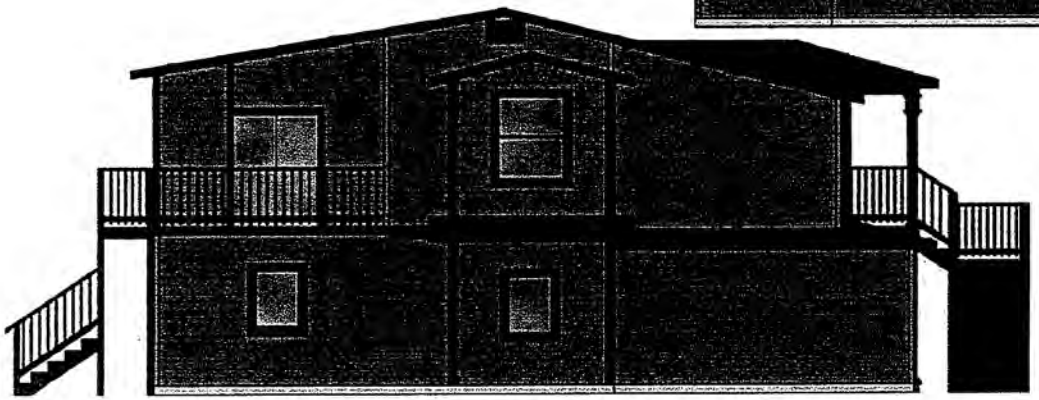


GARAGE FLOOR PLAN

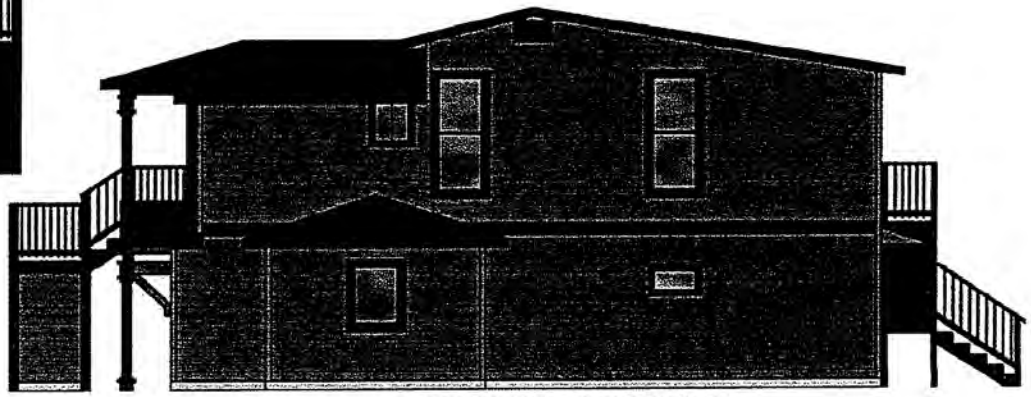

66'-0"
18'-4"
31'-4"
16'-4"
46x58
46x58
46x58
46x58
46x58
46x58
PORCH
243 SQ. FT.
S.G.D.
GREAT ROOM
DN
MASTER RETREAT
FLAT CEILING
13'-6"
BRIDGE
30x58
46x15
TUB/SHOWER
BEDROOM 2
BATH
DINING
FEATURE
MASTER BEDROOM
FLAT CEILING
13'-6"
40'-6"
46x58
WARDROBE
WARDROBE
30x58
ARCH
LINEN
OPT. OVEN
PANTRY
OPT. DOOR
SNACK BAR
PANTRY
REFER
CLOSET
24X27
FAU
OPT. ISLAND
LS/SAN
PANTRY
OPTIONAL
HIGH-FLAT
ENTRY
SHELVES
OPT. DBL. LAVY
MASTER
BATH
60" SHOWER
CATHEDRAL CEILING
13'-6"
BEDROOM 3
UTILITY
W.H.
OPT. W.H.
KITCHEN
WALK-IN
WARDROBE
ARCH
OPT. DOOR
OPT.8' GABLE
LINEN
W/H
ARCH
UNDER
MOUNT
TUB
ARCH
46X58
30x58
94x36
12x72
OPT. TRANSOM
45X48
12'-9"
6'-2"
18'-2"
7'-3"
9'-1"
12'-7"



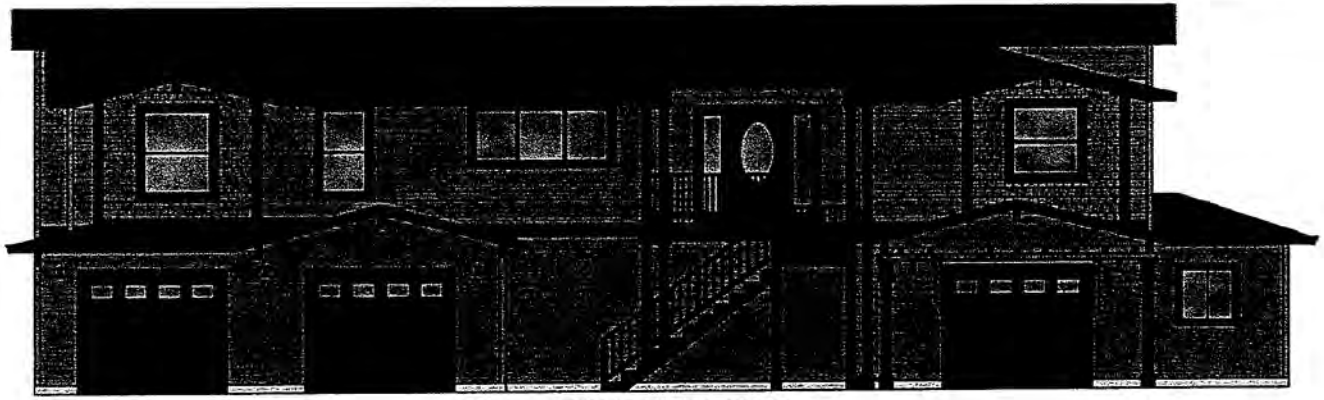
REAR ELEVATION



LEFT SIDE ELEVATION



RIGHT SIDE ELEVATION



FRONT ELEVATION

San Mateo Co[illegible]y Environmental Services Agency
[illegible]uilding Division
[illegible]unty Center, Mail Drop PLN 122
Redwood City, CA 94063-1646
363-4161 • Fax (650) 363-4849

ATTACHMENT C

Biological Impact Form

(for compliance with
Local Coastal Program Policy 7.5)

Filing Date: _____
Public Hearing: _____
Approval Date: _____

Owner/Applicant

Name: **Hank and Irene Zbiczak**
Mailing Address:
136 Santa Rosa Avenue
San Francisco, CA Zip: 94112

Phone, W: n/a
H: n/a
Fax: n/a

Project Location

Include U.S.G.S – Tier, Range, and Section:
The 0.29-acre (12,424 sq. ft.) site is located on Magellan Avenue in section 13 of township 5 south, range 6 west.

Assessor's Parcel Number(s):
048-013-050
048-013-060
Applicable Planning Permit numbers: n/a

Principal Investigators

(Note: Attach a qualification summary to the report.)
Name: Davinna Ohlson, Nathan Hale,
Neal Kramer, Mark Jennings
Mailing Address: Live Oak Associates, Inc.
6840 Via del Oro, Suite 220
San Jose, CA Zip: 95123

Phone, W: (408) 224-8300
H:
Fax: (408) 224-1411

Report Summary

The proposed project consists of the construction of a 2,418 sq. ft. manufactured home, along with two driveways and a porch extending to Magellan Avenue, on a 0.29-acre (12,424 sq. ft.) property. The home is proposed to be set back 25 ft. from the northwest property line. The property is bounded to the northwest and northeast by parklands, to the southeast by Magellan Avenue, and to the southwest by a residence. Surrounding land uses include open space, undeveloped lands, and light residential and commercial development. The Pacific Ocean is approximately 300 ft. southwest of the site.

The project site is currently undeveloped with approximately half of the site consisting of a dense thicket of native California blackberry and non-native poison hemlock. The remainder of the site consists of a ruderal field dominated by non-native grassland species. Approximately two dozen Monterey cypress and Monterey pine trees occur on the site. While no aquatic resources are on the site itself, an approximately 2-foot-wide, shallow stream channel runs parallel to and just beyond the site's northwest boundary. This channel conveys runoff from inland areas to the Pacific

Ocean. Additionally, a small artificial pond is located approximately 220 ft. northwest of the project site. The pond lacks emergent vegetation and is seasonally wet, depending on the amount of precipitation it receives.

Project impacts to local biological resources are considered to be minimal due to the existing conditions of the site and the small size of proposed ground disturbance. No sensitive communities or habitats are present on the site, although the intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Additionally, a number of trees on the site would be considered significant trees by the County. Special status plant species are expected to be absent from the site due to unsuitable habitat conditions. White-tailed kites could nest in the onsite trees.

Four potential impacts have been identified that could result from the proposed project. First, the intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Placement of the home should be set back from the channel beyond the site's northwest boundary in compliance with the County's LCP. Second, if any onsite trees were to be removed or otherwise impacted as a result of the proposed work, the County of San Mateo may require the applicant to obtain a County permit and comply with its terms, including the likely planting of replacement trees. Third, site disturbance could result in indirect impacts to surrounding resources, such as runoff or erosion into adjacent parklands or the Pacific Ocean. Therefore, the applicant should comply with a County grading permit, including implementation of best management practices (BMPs). Finally, a pre-construction survey of the site would be required if project onset were to occur during the nesting season (February 1 through August 31) for special status bird species and common raptor species. If nesting pairs were identified, an appropriate disturbance-free buffer should be established until such time when the young had fledged. This would ensure that no individuals are harmed, injured, or killed or an active nest is not abandoned as a result of the proposed construction.

California red-legged frogs and San Francisco garter snakes are highly unlikely to occur on the site due to the distance between the site and known occurrences of these species (i.e., the closest sightings are more than one mile from the site), the unsuitability of habitat for breeding and dispersal both on and adjacent to the site (e.g., lack of aquatic resources onsite; shallow, intermittent channel adjacent to the site; and a nearby pond that holds water seasonally), and the barriers to movement between the site and known populations of these species posed by development and major roadways, including Highway 1.

1. PROJECT AND PROPERTY DESCRIPTION

The proposed project consists of the construction of a 2,418 sq. ft. manufactured home, along with two driveways and a porch extending to Magellan Avenue, on a 0.29-acre (12,424 sq. ft.) property. The home is proposed to be set back 25 ft. from the northwest property line.

The 0.29-acre property (also known as the "site") is currently undeveloped and is bounded to the northwest and northeast by parklands, to the southeast by Magellan Avenue, and to the southwest by a residence. Surrounding land uses include open space, undeveloped lands, and light residential and commercial development. The Pacific Ocean is approximately 300 ft. southwest of the site (Figure 1).

The site is relatively flat at approximately 23 ft. National Geodetic Vertical Datum (Figure 2). A narrow, shallow channel runs parallel to and just beyond the site's northwest boundary. No aquatic resources are present on the site itself. Soil types on the site itself have not been mapped. However, soils immediately northwest of the site have been mapped, and it is reasonable to conclude that soils on the site are of the same series and unit or exhibit very similar characteristics. Soils on lands adjacent to the site have been mapped as "Denison loam, nearly level." This soil type is not considered hydric, although hydric inclusions could occur. Lands further north of the site occur on "Denison clay loam, nearly level, imperfectly drained" soils. These soils are considered hydric. Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. Under sufficiently wet conditions, they support the growth and regeneration of hydrophytic vegetation.

2. METHODOLOGY

Live Oak Associates (LOA) ecologists Davinna Ohlson and Nathan Hale conducted a field survey of the site on June 7, 2010. LOA botanist Neal Kramer conducted an additional survey of the site on June 14, 2010. Prior to these site visits, relevant sources of information were reviewed. Sources included 1) USGS topographic maps, 2) satellite imagery of the site and surrounding areas, 3) technical literature related to the biotic resources of the area, 4) species data compiled by the California Native Plant Society (CNPS 2010), California Natural Diversity Database (CDFG 2010), and U.S. Fish and Wildlife Service (USFWS 2010), and 5) the Local Coastal Program policies (San Mateo County 1998).

The June 2010 surveys consisted of walking the site and, to the maximum extent practicable, immediately surrounding lands, and recording existing conditions of the site and the potential for sensitive biotic resources to occur onsite. Information gathered in the field was used to characterize the botanical and wildlife resources occurring on the site and in the region. Detailed surveys for sensitive biological resources were not conducted for this study. The level of effort put forth was sufficient to assess the significance of biological constraints associated with the parcel and to assess the need for more detailed studies that could be warranted if sensitive biotic resources were identified in this initial survey.

Mr. Kramer conducted an additional site visit on February 10, 2012, to map the centerline of the stream channel along the site's northwest boundary. Additional review of the site was completed in February 2012 in consultation with LOA associate herpetologist Dr. Mark Jennings.

3. RESULTS

EXISTING CONDITIONS

The project site is currently undeveloped with approximately half of the site consisting of a dense thicket of native California blackberry (*Rubus ursinus*) and non-native poison hemlock (*Conium maculatum*). The poison hemlock had been cut at the time of the June 2010 survey. The remainder of the site consists of a ruderal field dominated by non-native grassland species, including wild oats (*Avena fatua*), Italian ryegrass (*Lolium multiflorum*), and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*). Non-native forbs occurring on the site include wild radish (*Raphanus sativus*), common vetch (*Vicia sativa*), greater periwinkle (*Vinca major*), sweet fennel (*Foeniculum vulgare*), and garden nasturtium (*Tropaeolum majus*). Native species found on the site include bee plant (*Scrophularia californica*), California coffeeberry (*Rhamnus californica* ssp. *californica*), and coyote brush (*Baccharis pilularis*). Approximately two dozen Monterey cypress (*Cupressus macrocarpa*) and Monterey pine (*Pinus radiata*) trees occur on the site; these trees are primarily located along the fenceline of the southwest perimeter and along Magellan Avenue.

While no aquatic resources are on the site itself, an approximately 2-foot-wide, shallow stream channel runs parallel to and just beyond the site's northwest boundary. This channel conveys runoff from inland areas to the Pacific Ocean. The reach of the channel bed along the site boundary did not appear to convey water at the time of the field survey and was largely devoid of vegetation. Vegetation occurring along the channel banks included Monterey cypress, California blackberry, pink flowering currant (*Ribes sanguineum* var. *glutinosum*), thick leaf box (*Pittosporum crassifolium*), western lady fern (*Athyrium filix-femina* var. *cyclosorum*), California willowherb (*Epilobium ciliatum*), and green dock (*Rumex conglomeratus*). Additionally, a small artificial pond is located approximately 220 ft. northwest of the project site. The pond lacks emergent vegetation and is seasonally wet, depending on the amount of precipitation it receives.

The blackberry thicket, thick leaf litter, and brush piles onsite provide a moist microclimate suitable for amphibians such as the Pacific treefrog (*Hyla regilla*) and western toad (*Bufo boreas*) as well as cover for reptiles such as the western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Elgaria multicarinatus*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*).

Bird species observed on the site include Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), bushtit (*Psaltriparus minimus*), American robin (*Turdus migratorius*), California towhee (*Pipilo crissalis*), song sparrow (*Melospiza melodia*), purple finch (*Carpodacus purpureus*), and American goldfinch (*Carduelis tristis*). Raptors that may utilize the cypress and pine trees on the site include the red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*).

Because of the site's proximity to development, vehicular traffic, and high pedestrian use areas, the number of mammalian species expected to occur on the site would be limited. Small mammals such as the raccoon (*Procyon lotor*) may move along the channel. House cats (*Felis catus*) and domestic dogs (*Canis familiaris*) are likely to move onto the site from time to time.

SENSITIVE COMMUNITIES AND HABITATS

The County of San Mateo regulates impacts to sensitive habitats via the Local Coastal Program, which was approved by the California Coastal Commission. Sensitive habitats are defined in the County's Local Coastal Program policies (1998) as 1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, 2) all perennial and intermittent streams and their tributaries, 3) coastal tide lands and marshes, 4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, 5) areas used for scientific study and research concerning fish and wildlife, 6) lakes and ponds and adjacent shore habitat, 7) existing game and wildlife refuges and reserves, and 8) sand dunes. Coastal wetland habitat is also regulated under the Local Coastal Program, which consists of areas meeting the U.S. Army Corps of Engineers' (USACE) hydrology criterion with either hydric soils or dominating hydrophytic vegetation. Sensitive habitats associated with wetlands and streams may also be regulated by the USACE, CDFG, and RWQCB.

The County's LCP establishes buffer zones in riparian areas and states that "where no riparian vegetation exists along both sides of riparian corridors, extend buffer zones 50 feet from the predictable high water point for perennial streams and 30 feet from the midpoint of intermittent streams."

The County of San Mateo also has regulations protecting large trees that may occur within these communities or habitats. According to County Ordinance Section 12.000, a "significant tree" is any live woody plant rising above the ground with a single stem or trunk of a circumference of thirty-eight inches (about 12 inches in diameter) at a point 4.5 feet above the ground, and having the inherent capacity of naturally producing one main axis continuing to grow more vigorously than the lateral axes. Heritage trees, protected under Section 11.000 of the County's ordinance code, include those specific trees or groves of trees designated by the County as "heritage," and those listed native trees

designated in the ordinance with diameters equal to or greater than the sizes listed. A permit is required for the removal of a significant or heritage tree. Such permits are issued on the condition that replacement trees will be planted to compensate for the loss of each tree.

No sensitive communities or habitats are present on the site, although the intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Additionally, a number of trees on the site would be considered significant trees by the County. Therefore, a permit may be required from the County if these trees are to be removed as a result of the proposed project.

SPECIAL STATUS SPECIES

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered rare and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided the County of San Mateo, California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by the CDFG. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2001). Collectively, these plants and animals are referred to as "special status species."

A number of special status plants and animals occur in the site's vicinity. A search of published accounts for all relevant special status plant and animal species was conducted for the Half Moon Bay USGS 7.5" quadrangle in which the project site occurs and for the five surrounding quadrangles (Montara Mountain, San Mateo, Woodside, La Honda, and San Gregorio) using the California Natural Diversity Data Base Rarefind (CDFG 2010). Only these six quadrangles were searched instead of nine because the Pacific Ocean begins less than 0.1 mile southwest of the parcel. All plant species listed as occurring in these quadrangles on CNPS Lists 1A, 1B, 2, 3, or 4 were also reviewed.

Special Status Plants

Special status plant species include those listed as endangered, threatened, rare, or as species of concern by the U. S. Fish and Wildlife Service, the California Department of Fish and Game, and the California Native Plant Society. The CNPS listing is sanctioned by the CDFG and serves essentially as their list of candidate plant species. Additional definitions are given in CEQA, Section 15380(d).

Based on a review of extant special status plant species from the Half Moon Bay area, 41 sensitive plant species are known to occur within the vicinity of the parcel (CDFG 2010, CNPS 2010). Serpentine soils are absent from the site; as such, those species that are uniquely adapted to serpentine conditions, including the San Mateo thorn-mint (*Acanthomintha duttonii*), fountain thistle (*Cirsium fontinale* var. *fontinale*), Hillsborough chocolate lily (*Fritillaria biflora* var. *ineziana*), Marin western flax (*Hesperolinon congestum*), Crystal Springs lessingia (*Lessingia arachnoidea*), and woodland woolythreads (*Monolopia graciliens*) are considered absent from the site. Other plant species occur in habitats not present in the study area (e.g., chaparral, brackish and freshwater marshes, etc.) and, therefore, are also considered absent from the site. These species include the Anderson's manzanita (*Arctostaphylos andersonii*), Montara Manzanita (*Arctostaphylos montaraensis*), King's Mountain manzanita (*Arctostaphylos regismontana*), Point Reyes bird's-beak (*Cordylanthus maritimus* ssp. *palustris*), San Mateo woolly sunflower (*Eriophyllum latilobum*), Indian Valley bush-mallow (*Malacothamnus aboriginum*), and arcuate bush-mallow (*Malacothamnus arcuatus*).

A summary of the formal status, habitat affinities, and potential for occurrence on the site itself for the remaining locally occurring special status plant species is discussed in Table 1.

Table 1: Special status plant species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Franciscan onion *(Allium peninsulare var. franciscanum)*	CNPS 1B	Cismontane woodland, valley and foothill grassland on clay and volcanic soils and often on serpentinite.	**Absent.** Suitable habitat is not present on the site.
Bent-flowered fiddleneck *(Amsinckia lunaris)*	CNPS 1B	Coastal bluff scrub, cismontane woodland, grasslands.	**Absent.** Suitable habitat is not present on the site.
Coastal marsh milk-vetch *(Astragalus pycnostachyus var. pycnostachyus)*	CNPS 1B	Mesic sites in coastal dunes or within fresh and salt water marshes/swamps.	**Absent.** Suitable habitat is not present on the site.
Round-leaved filaree *(California macrophylla)*	CNPS 1B	Cismontane woodland and valley and foothill grassland on clay soils.	**Absent.** Suitable habitat is not present on the site. The nearest documented occurrence of this species is from 1896 and more than fifteen miles from the site.
Pappose tarplant *(Centromadia parryi ssp. parryi)*	CNPS 1B	Coastal prairie, meadows and seeps, coastal salt marshes/swamps, and grasslands.	**Unlikely.** Marginal habitat is present on the site. This species has not been documented within five miles of the site.
San Francisco Bay spineflower *(Chorizanthe cuspidata var. cuspidata)*	CNPS 1B	Coastal bluff scrub, coastal dunes and prairies. Sandy soils.	**Absent.** Suitable habitat is not present on the site.

Table 1: Special status plant species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Franciscan thistle (*Cirsium andrewsii*)	CNPS 1B	Broadleafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub. Mesic soils and sometimes serpentinite.	**Absent.** Suitable habitat is not present on the site.
San Francisco collinsia *(Collinsia multicolor)*	CNPS 1B	Closed cone coniferous forest and coastal scrub, sometimes on serpentine soils.	**Absent.** Suitable habitat is not present on the site.
Western leatherwood *(Dirca occidentalis)*	CNPS 1B	Broadleaved forest, chaparral, woodland, coniferous forest, riparian woodland.	**Absent.** Suitable habitat is not present on the site. This species is not known to occur along the coast.
Fragrant fritillary *(Fritillaria liliacea)*	CNPS 1B	Coastal scrub, grasslands, often on serpentine and clay.	**Absent.** Suitable habitat is not present on the site. This species is not known to occur along the coast.
San Francisco gumplant *(Grindelia hirsutula var. maritima)*	CNPS 1B	Coastal scrub, coastal bluff scrub, grassland. Sandy or serpentine soils on ocean bluffs.	**Absent.** Suitable habitat is not present on the site.
Short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*)	CNPS 1B	Coastal bluff scrub on sandy soils and coastal dunes.	**Absent.** Suitable habitat is not present on the site.
Kellogg's horkelia (*Horkelia cuneata ssp. sericea*)	CNPS 1B	Chaparral and sandy or gravelly openings within coastal scrub.	**Absent.** Suitable habitat is not present on the site.
Point Reyes horkelia *(Horkelia marinensis)*	CNPS 1B	Sandy coastal dunes, coastal scrub, coastal prairie.	**Absent.** Suitable habitat is not present on the site.
Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)	CNPS 1B	Coastal bluff scrub, coastal dunes, and coastal scrub.	**Absent.** Suitable habitat is not present on the site.
Coast yellow linanthus *(Leptosiphon croceus)*	CNPS 1B	Coastal bluff scrub, coastal prairie near ocean	**Absent.** Suitable habitat is not present on the site.
Rose linanthus *(Leptosiphon rosaceus)*	CNPS 1B	Coastal bluff scrub adjacent to coast	**Absent.** Suitable habitat is not present on the site.
Wooly headed lessingia *(Lessingia hololeuca)*	CNPS 3	Broadleaved upland forest, coastal scrub, coniferous forest, grassland, serpentine soils	**Absent.** Suitable habitat is not present on the site.
Davidson's bush-mallow (*Malacothamnus davidsonii*)	CNPS 1B	Chaparral, cismontane woodland, coastal scrub, and riparian woodland.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1901.

Table 1: Special status plant species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Hall's bush-mallow (*Malacothamnus hallii*)	CNPS 1B	Chaparral and coastal scrub.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1902.
Marsh microseris (*Microseris paludosa*)	CNPS 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland.	**Absent.** Suitable habitat is not present on the parcel. The nearest documented occurrences of this species are more than fifteen miles from the site.
Dudley's lousewort (*Pedicularis dudleyi*)	CNPS 1B	Maritime chaparral, cismontane woodland, north coast coniferous forest, and valley and foothill grassland.	**Absent.** Suitable habitat is not present on the site. The nearest documented occurrences of this species are more than twenty miles from the site.
White-rayed pentachaeta *(Pentachaeta bellidiflora)*	FE, CE, CNPS 1B	Open dry rocky slopes and grassy areas, usually on serpentine soils.	**Absent.** Suitable habitat is not present on the site. This species has not been documented along the coast.
Choris' popcorn-flower (*Plagiobothrys chorisianus* var. *chorisianus*)	CNPS 1B	Chaparral, coastal prairie, and coastal scrub on mesic soils.	**Absent.** The site does not exhibit mesic soils that would support this species.
Oregon polemonium (*Polemonium carneum*)	CNPS 2	Coastal prairie, coastal scrub, and lower montane coniferous forest.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1916.
Hickman's cinquefoil *(Potentilla hickmanii)*	FE, CE, CNPS 1B	Freshwater marshes and swamps, vernally mesic meadows and seeps, and coastal bluff scrub.	**Absent.** Suitable habitat is not present on the site.
San Francisco campion *(Silene verecunda* ssp. *verecunda)*	CNPS 1B	Coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grasslands on sandy soils.	**Absent.** Sandy soils are not present on the site. The nearest documented occurrence of this species is more than three miles from the site.
Saline clover (*Trifolium depauperatum* var. *hydrophilum*)	CNPS 1B	Marshes and swamps, valley and foothill grasslands on mesic or alkaline soils, and vernal pools.	**Absent.** Suitable habitat is not present on the site. This species has not been documented in the region since 1886.
San Francisco owl's clover *(Triphysaria floribunda)*	CNPS 1B	Coastal prairie, usually serpentine soils.	**Absent.** Suitable habitat is not present on the site.

Federal Status
FE Federally Endangered
FT Federally Threatened

State Status
CE California Endangered
CT California Threatened

CNPS
1B Rare, threatened, or endangered in California and elsewhere
2 Rare, threatened, or endangered in California but more common elsewhere
3 Plants about which more information is needed

Sources: CDFG 2010, CNPS 2010

Of the 41 special status plant species known to occur in the site's vicinity, none are expected to occur on the site itself due to the lack of suitable habitat.

Special Status Animals

Special status animal species include those listed as endangered, threatened, rare, or as candidates for listing by the USFWS and/or CDFG. Other species regarded as having special status include special animals as listed by the CDFG. Additional animal species receive protection under the Bald Eagle Protection Act and the Migratory Bird Treaty Act (16 U.S.C. 703-711). The Fish and Game Code of California provides protection for "fully protected birds" (Section 3511), "fully protected mammals" (Section 5515), "fully protected reptiles and amphibians" (Section 5050), and "fully protected fish" (Section 5515). Additional definitions are given in the California Environmental Quality Act Section 15380.

Based on a review of extant special status animal species from the Half Moon Bay area (CDFG 2010) and an understanding of the geographic range and habitat affinities of special status animal species, 24 species are known to occur within the Half Moon Bay region. A summary of the formal status, habitat affinities, and potential for occurrence on the site itself for locally occurring special status animal species is discussed in Table 2.

Table 2: Special status animal species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Invertebrates			
Monarch butterfly *(Danaus plexippus)*	None	Roosts in wind-protected tree groves.	**Unlikely.** Individuals may pass over the site, but this species is not expected to roost in the onsite trees.
Mission blue butterfly *(Plebejus icarioides missionensis)*	FE	Grasslands with lupine host plants.	**Absent.** Suitable habitat, including host plants, is not present on the site.
San Bruno elfin butterfly *(Callophrys mossii bayensis)*	FE	Grasslands with *Sedum* host plants on north-facing slopes.	**Absent.** Suitable habitat is not present on the site. The necessary host plant is absent.
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	FT	Native grasslands on outcrops of serpentine soils. Primary host plant is *Plantago erecta*.	**Absent.** Suitable habitat, including host plants, is not present on the site.
Myrtle's silverspot butterfly *(Speyeria zerene myrtleae)*	FE	Coastal scrub and grasslands with *Viola* host plants.	**Absent.** Suitable habitat, including host plants, is not present on the site.
Fish			

Table 2: Special status animal species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Tidewater goby (*Eucyclogoblus newberryi*)	FE, CSC	A marine species occurring in shallow water estuaries and lagoons from Del Norte Co. south to San Diego Co.	**Absent.** Suitable habitat is absent from the site. This species would not be expected to occur in the narrow channel adjacent to the site.
Steelhead –central California coast *(Oncorhynchus mykiss irideus)*	FT	Coastal streams and rivers.	**Absent.** Suitable habitat is absent from the site. This species would not be expected to occur in the narrow channel adjacent to the site.
Amphibians			
California tiger salamander (*Ambystoma californiense*)	FT, CSC	Breeds in vernal pools and stock ponds of central California. Adults aestivate in grassland habitats adjacent to the breeding sites.	**Absent.** Breeding and aestivation habitat is absent from the site.
Foothill yellow-legged frog (*Rana boylii*)	CSC	Frequents partly shaded, shallow, swiftly-flowing streams and riffles with rocky substrate in a variety of habitats.	**Absent.** The site and the nearby channel do not provide suitable habitat for this species. This species has not been documented along this channel.
California red-legged frog *(Rana aurora draytonii)*	FT, CSC	Rivers, creeks and stock ponds of the Sierra foothills and coast range, preferring pools with overhanging vegetation.	**Highly Unlikely.** The site and the nearby channel do not provide suitable habitat for this species, as the site lacks aquatic resources, and the channel is shallow and conveys water intermittently. This species has not been documented along this channel. The nearby pond also holds water seasonally and, therefore, would not serve as suitable breeding habitat. The nearest documented occurrences are approximately 1.1 miles to the northwest and approximately 1.5 miles to the east of the site. Extensive urbanization and major roads, including Highway 1, serve as barriers to movement between these known CRLF locations and the site.
Reptiles			
Western pond turtle (*Actinemys marmorata*)	CSC	Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	**Absent.** The site and the nearby channel do not provide suitable habitat for this species. This species has not been documented along this channel.
San Francisco garter snake *(Thamnophis sirtalis tetrataenia)*	FE, CE	Freshwater marshes, ponds, and slow-moving streams, preferring dense cover and water depths of at least one foot.	**Highly Unlikely.** The site and the nearby channel do not provide suitable habitat for this species. Extensive urbanization and major roads, including Highway 1, serve as barriers to movement between the site and known populations of this species.

Table 2: Special status animal species known to occur in the vicinity of the site.

Species	Status	Habitat Affinities	Potential for Occurrence
Birds			
White-tailed kite *(Elanus leucurus)*	CP	Open grasslands and agricultural areas throughout central California.	**Possible.** This species could utilize the onsite trees for nesting during the breeding season and perching during the non-breeding season. The parcel provides only marginal foraging habitat due to the lack of open habitat.
Western snowy plover *(Charadrius alexandrinus nivosus)*	FT, CSC	Nests in sandy marine and estuarine shores, and along salt levees.	**Absent.** Suitable habitat is absent from the site.
California black rail *(Laterallus jamaicensis coturniculus)*	CT	Resident of saline and fresh emergent wetlands.	**Absent.** Suitable habitat is absent from the site.
California clapper rail *(Rallus longirostris obsoletus)*	FE, CE	Salt and brackish marshes.	**Absent.** Suitable habitat is absent from the site.
Burrowing owl *(Athene cunicularia)*	CSC	Open, dry grasslands, deserts and ruderal areas. Requires suitable burrows. Often associated with California ground squirrels.	**Absent.** Suitable nesting habitat is absent from the site. The site occurs outside of the species' known range.
Saltmarsh common yellowthroat *(Geothlypis trichas sinuosa)*	CSC	Coastal streams dominated by willows and brackish or freshwater marshes.	**Absent.** Suitable nesting habitat is absent from the site. This species may occasionally forage over the site.
Alameda song sparrow *(Melospiza melodia pusillula)*	CSC	Found in salt marshes, primarily along the Bay in Alameda County	**Absent.** Suitable habitat is absent from the site.
Mammals			
Pallid bat *(Antrozous pallidus)*	CSC	Grasslands, chaparral, woodlands, and forests of California; most common in dry rocky open areas that provide roosting opportunities.	**Absent.** Individuals could pass over the site on their way to more suitable habitat. However, suitable habitat is not present on the site itself.
Big free-tailed bat *(Nyctinomops macrotis)*	CSC	Rocky, arid habitats. Roosts primarily in crevices, but have been observed roosting in caves, buildings, and trees.	**Absent.** Individuals could pass over the site on their way to more suitable habitat. However, suitable habitat is not present on the site itself.
Salt-marsh harvest mouse *(Reithrodontomys raviventris)*	FE, CE	Saline emergent wetlands dominated by pickleweed.	**Absent.** Suitable habitat is absent from the site, and the site occurs outside the native range of this species.

Table 2: Special status animal species known to occur in the vicinity of the site.			
[illegible]	Status	Habitat Affinities	Potential for Occurrence
San Francisco dusky-footed woodrat *(Neotoma fuscipes annectens)*	CSC	Woodlands and forests, riparian communities.	**Absent.** Suitable habitat is absent from the site.
American badger (*Taxidea taxus*)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils	**Absent.** Suitable habitat is absent from the site.
Federal Status FE Federally Endangered FT Federally Threatened	**State Status** CE California Endangered CT California Threatened CSC California Species of Concern CP California Protected		

Source: CDFG 2010

Of the 24 special status animal species known to occur in the vicinity of the site, only the white-tailed kite is expected to potentially occur on the site. The white-tailed kite is listed as a fully protected species. In short, the CDFG cannot issue a take permit for impacts to individuals of species having the fully protected status. The CDFG can, however, authorize impacts to habitat suitable for the kite. White-tailed kites inhabit open lowland grassland, riparian woodland, marshes, and scrub areas and nest in a variety of species of large trees. White-tailed kites could nest in the onsite trees. Foraging habitat on the site for this species is marginal.

4. DIRECT AND INDIRECT IMPACTS TO BIOLOGICAL HABITATS

The project site is relatively small in size at 0.29 acre and is located next to light residential and commercial development, ruderal fields, and parklands. The proposed project is a manufactured, 2,418 sq. ft. single-family home. No sensitive or special status communities/habitats occur on the site itself, and the loss of a small amount of native blackberry and regionally abundant ruderal, non-native grassland habitat would not be considered a significant impact.

The intermittent stream occurring just beyond the site's northwest boundary would be considered a sensitive habitat. Additionally, approximately two dozen Monterey cypress and Monterey pines are present on the site. A number of these trees would be considered significant trees regulated by the County. Mitigation measures would be required to offset direct and indirect impacts to the stream channel and to significant trees present on the site (*Mitigation Measures 1* and *2*).

Regardless of the biological quality of the site itself, high quality habitat remains in the immediate vicinity (e.g., parklands to the northwest and northeast and the Pacific Ocean approximately 300 ft. southwest of the site). In order to maintain the currently quality of surrounding biotic habitats, measures should be taken to ensure onsite ground disturbances do not degrade local resources (*Mitigation Measure 3*).

Mitigation Measure 1:

Placement of the home should be set back from the channel beyond the site's northwest boundary in compliance with the County's LCP. Because the channel lacks associated riparian vegetation and carries intermittent flows, a buffer of 30 ft. from the midpoint of the channel would be appropriate (Figure 3).

Mitigation Measure 2:

Should project buildout require the removal of any trees on the site considered to be a significant tree, a tree removal permit would need to be obtained and its conditions complied with (e.g., planting of replacement trees) pursuant to the County's tree ordinance.

Mitigation Measure 3:

The applicant should comply with the provisions of a County grading permit, including implementation of standard erosion control measures that employ best management practices (BMPs).

5. DIRECT AND INDIRECT IMPACTS TO SPECIAL STATUS SPECIES

A number of special status plant and animal species are known to occur in the vicinity of Half Moon Bay and El Granada. Special status plant species are presumed to be absent from the site due to unsuitable habitat conditions and/or ongoing management of the ruderal portions of the site (i.e., areas outside of the blackberry thicket). However, white-tailed kites, a California protected species, may utilize the site while breeding. Additionally, locally occurring raptor species are protected by the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) and State Fish and Game Code (CDFG 2010). Therefore, if site disturbance were to occur during these species' breeding season (February 1 through August 31), implementation of *Mitigation Measure 4* would be required to insure that raptors were not harmed, injured, or killed as a result of buildout of the proposed project.

As discussed in section 3, California red-legged frogs and San Francisco garter snakes are highly unlikely to occur on the site due to the distance between the site and known occurrences of these species (i.e., the closest sightings are more than one mile from the site), the unsuitability of habitat for breeding and dispersal both on and adjacent to the site (e.g., lack of aquatic resources onsite; shallow, intermittent channel adjacent to the site; and a nearby pond that holds

water seasonally), and the barriers to movement between the site and known populations of these species posed by development and major roadways, including Highway 1. This determination is consistent with conclusions regarding these species for an adjacent property (WRA 2009)

Mitigation Measure 4:

Should trees need to be removed, their removal should occur during the non-breeding season (September 1 through January 31). If it is not possible to avoid tree removal or other disturbances during the breeding season (February 1 through August 31), a qualified biologist should conduct a pre-construction survey for white-tailed kites and common tree-nesting raptors in all trees within the development footprint and within 250 feet of the footprint no more than 30 days from the onset of ground disturbance, if such disturbance will occur during the breeding season. If such species are detected on the site during the survey, a suitable activity-free buffer should be established around all active nests. The precise dimension of the buffer (up to 250 ft.) would be determined at that time and may vary depending on location and species. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

6. MITIGATION MEASURES TO REDUCE IMPACTS TO A LESS-THAN-SIGNIFICANT LEVEL

Table 3: Impacts, mitigation measures, and their effectiveness.

Impact	Mitigation Measure	Effectiveness
Sensitive Habitats: Indirect impacts to the intermittent channel just beyond the site's northwest boundary.	**Mitigation Measure 1:** A development setback of 30 ft. from the midpoint of the channel should be established.	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.
Significant Trees: Direct impacts to Monterey cypress and Monterey pines occurring onsite.	**Mitigation Measure 2:** Should project buildout require the removal of any trees on the site considered to be a significant tree, a tree removal permit would need to be obtained and its conditions complied with (e.g., planting of replacement trees) pursuant to the County's tree ordinance.	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.
Surrounding Biological Resources: Indirect impacts to the surrounding biological resources, particularly parklands to the northwest and northeast of the site and the Pacific Ocean approximately 300 ft. southwest of the site.	**Mitigation Measure 3:** The applicant should comply with the provisions of a County grading permit, including implementation of standard erosion control measures that employ best management practices (BMPs).	**Significance:** The proposed mitigation would reduce the identified impact to a less-than-significant level.
Nesting Avian Species: Direct impacts to special status avian species (i.e.,	**Mitigation Measure 4:** A qualified biologist should conduct a pre-construction raptor survey	**Significance:** The proposed mitigation would reduce the

Table 3: Impacts, mitigation measures, and their effectiveness.		
Impact	Mitigation Measure	Effectiveness
white-tailed kites) and common tree-nesting raptors if site disturbance were to occur during the breeding season (February 1 through August 31).	of all onsite trees within 250 feet of the propose development footprint within 30 days of the onset of ground disturbance. If such species were detected, a suitable activity-free buffer should be established around all active nests. The precise dimension of the buffer (up to 250 ft.) would be determined at that time and may vary depending on location and species. Buffers should remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.	identified impact to a less-than-significant level.

7. **CERTIFICATION:** I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: 6 March 2012 Signed: Davina Ohlson

ENCLOSURES

+ Aerial image of project site and surrounding area
+ Map of area from the USGS 7.5-minute quadrangle series
+ Map of 30-ft. setback from the channel centerline
+ Plot plan
+ Boundary and topographic survey

REFERENCES

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_____. 1988. California's wildlife, volume II, birds. Department of Fish and Game. Sacramento, CA. 731 pp.

_____. 1988. California's wildlife, volume III, mammals. Department of Fish and Game. Sacramento, CA. 407 pp.

QUALIFICATIONS

Live Oak Associates, Inc. (LOA) has considerable expertise in biotic resource issues (i.e., vegetation, wildlife (including macroinvertebrate and fish evaluations,), habitat management, sensitive habitats (including wetlands and waterways), mitigation, permitting). The firm assists clients in compliance with local, state and federal regulations protecting scarce or sensitive biotic resources. LOA conducts wetland delineations, California Environmental Quality Act (CEQA) evaluations, National Environmental Policy Act (NEPA) assessments, endangered species surveys and habitat suitability assessments. LOA has worked closely with the various regulatory agencies in regards to Sections 401 and 404 of the Clean Water Act, Sections 1601 and 1603 of the California Fish and Game Code, and the Local Coastal Program dictated by the California Coastal Act. Consultations regarding Sections 7 and 10 of the Endangered Species Act have also been initiated and resolved for various project involving federally listed species. LOA has extensive experience in negotiating and consulting with regulatory agencies on the client's behalf, processing permits, testifying at public meetings and court hearings, and updating clients on regulatory issues. The firm can assist clients in developing monitoring protocols or sampling designs to comply with mitigation measures as required by regulatory agencies. In-house graphics capabilities in CAD and GIS are evidenced in draft and final quality maps of wetlands, biotic habitats and pinpoint locations of specific habitat features.

Davinna Ohlson is an experienced wildlife and plant ecologist with extensive skills in wetland ecology, special status species surveys (including both plants and animals), and permitting. Ms. Ohlson has a master's degree in environmental studies with approximately eight years of relevant experience. Her areas of expertise include the preparation of CEQA/NEPA documents, delineations of jurisdictional waters, permitting, special status species surveys, and monitoring projects. Ms. Ohlson has prepared a number of CEQA/NEPA documents analyzing environmental impacts. This involved researching the existing biotic conditions of a specific site, completing wetland delineations and special status species surveys, and analyzing the measures needed to avoid, minimize, and compensate for any determined impacts. Ms. Ohlson has been trained to perform wetland delineations of jurisdictional waters. Wetland surveys have been conducted in seasonal wetlands, vernal pools, marshes, ephemeral/intermittent/perennial streams, and created wetlands. On numerous occasions, the information gathered during the wetlands surveys has been used to complete various permit applications. Ms. Ohlson has conducted a number of special status plant and animal species surveys and has been involved in a number of monitoring projects, including both wetland, riparian, and wildlife monitoring.

Nathan Hale is an experienced wildlife ecologist with over three years of related experience. He has conducted broad scale habitat assessments, Swainson's hawk, burrowing owl, and other nesting bird surveys, fairy shrimp surveys, blunt-nosed leopard lizard surveys, wetland delineations, rare plant surveys, and mitigation and construction monitoring. Nathan has a sound working knowledge of CEQA and NEPA documentation and is well versed on local and national

species regulations. He is currently working toward a master's degree in biology focused on plant community restoration.

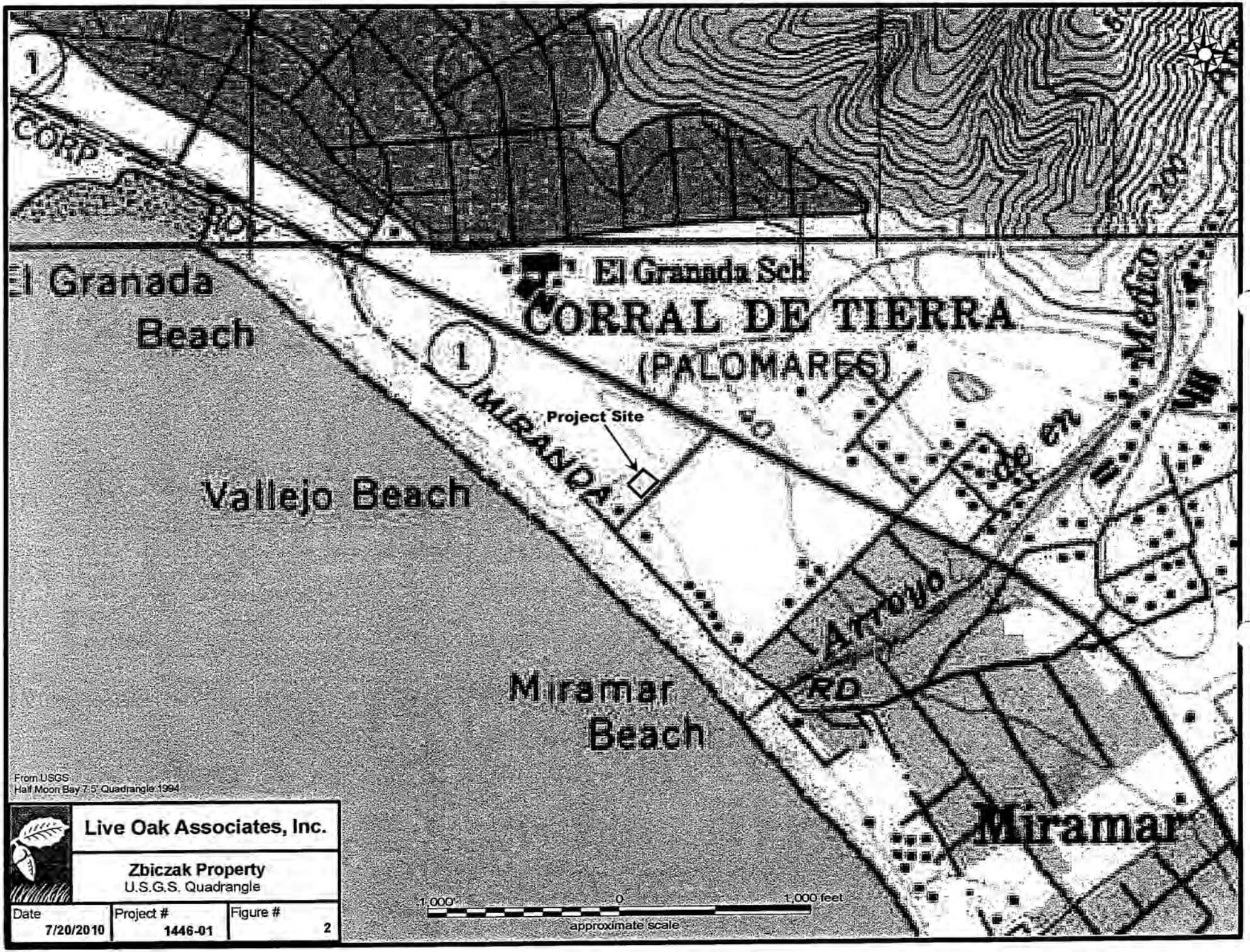
Neal Kramer has experience with native flora and plant communities in more than 25 different California counties and in Oregon, Idaho and Nevada, as well as in Honduras, Ecuador and Peru. Among the numerous plant inventories he has completed, Mr. Kramer prepared a list of over 500 species for approximately 6200 acres on the Peninsula Open Space Trust Cloverdale/Bolsa Pt. Ranch property in San Mateo County. Rare plant surveys have included more than a dozen different sites in the Bay Area, vernal pools in Fresno and Madera Counties, and Delta marshland in Sacramento County. He is experienced in wetland delineation for a variety of wetland types including vernal pools. Mr. Kramer has a master's degree in forest ecology from the University of Idaho, where he studied plant succession and the role of buried seed banks on forest sites in the Northern Rocky Mountains.

Dr. Mark Jennings is a noted authority on California red-legged frogs and San Francisco garter snakes and has extensive knowledge of the herpetofauna of California. He has published numerous articles and has conducted numerous habitat assessments and pre-construction and monitoring surveys for these species. He possesses extensive familiarity with this region of San Mateo County.

Live Oak Associates, Inc.

Zbiczak Property
Aerial Photo of Site and Surrounding Area

Date	Project #	Figure #
7/20/2010	1446-01	1



Live Oak Associates, Inc.

Zbiczak Property
U.S.G.S. Quadrangle

Date	Project #	Figure #
7/20/2010	1446-01	2

Live Oak Associates, Inc.

Zbiczak Property
Channel Setback

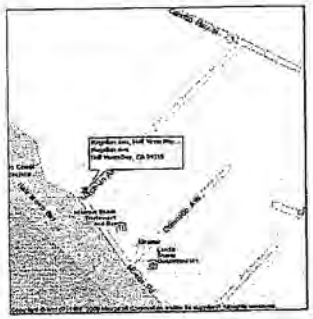
Date	Project #	Figure #
3/1/2012	1446-01	3

OWNER:

Hank and Irena Zbiczak
136 Santa Rosa Avenue
San Francisco , CA 94112
TEL:

DESIGN BY:

M & N
DESIGNING
TEL.(916)366-9731
3654 Goldshore Ct.
Sacramento CA 95827



LOCATION MAP

PLOT PLAN

SCALE: 1/8" = 1' 0"

NORTH

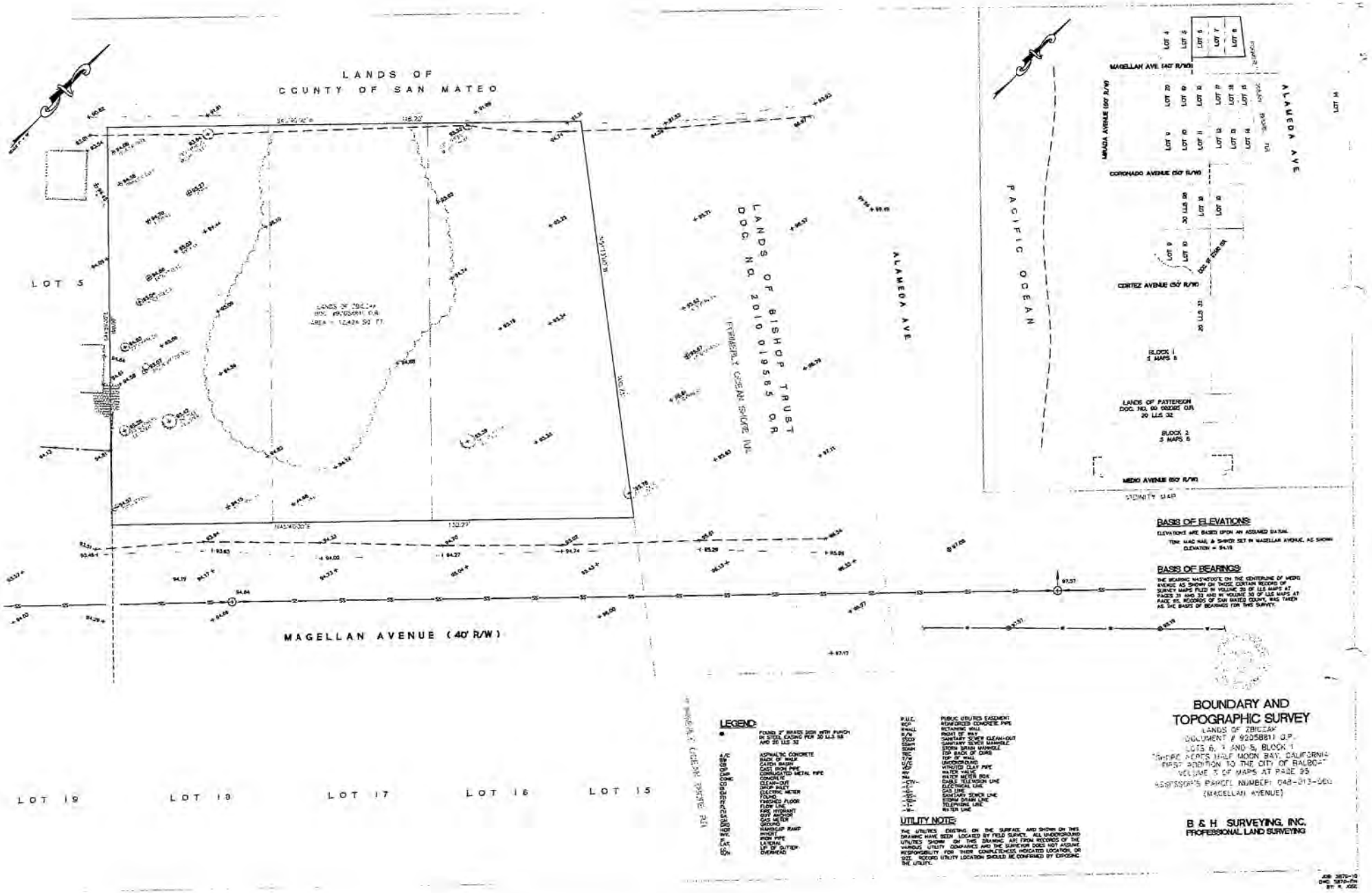
M & N
DESIGNING
TEL.: (916) 366-9731
3654 Goldshore ct
Sacramento CA 95827

REV	DATE	NAME
1		
2		
3		
4		
5		
6		
7		

MAGELLAN AVE.
Half Moon Bay, CA 94019
APN # 048-013-050
APN # 048-013-060

PLOT PLAN

PLAN #	003
JOB #	003
DATE	9/23/2009
SCALE	N/A
BY	MIKE
SHT #	1



BASIS OF ELEVATIONS:

ELEVATIONS ARE BASED UPON AN ASSUMED DATUM.

TBM: MAG NAIL & SHINER SET IN MAGELLAN AVENUE, AS SHOWN
ELEVATION = 94.19

BASIS OF BEARINGS:

THE BEARING N45°40'00"E ON THE CENTERLINE OF MEDIO AVENUE AS SHOWN ON THOSE CERTAIN RECORDS OF SURVEY MAPS FILED IN VOLUME 39 OF LLS MAPS AT PAGES 31 AND 32, AND IN VOLUME 30 OF LLS MAPS AT PAGE 85, RECORDS OF SAN MATEO COUNTY, WAS TAKEN AS THE BASIS OF BEARINGS FOR THIS SURVEY.

LEGEND:

- FOUND 3" BRASS DISK WITH PUNCH IN STEEL CASING PER 30 LLS 18 AND 20 LLS 32
- ASPHALTIC CONCRETE
- BACK OF WALK
- CATCH BASIN
- CAST IRON PIPE
- CORRUGATED METAL PIPE
- CONCRETE
- CLEAN-OUT
- UTILITY POLE
- ELECTRIC METER
- FENCE
- FINISHED FLOOR
- FLOW LINE
- FIRE HYDRANT
- GRID INLET
- GAS METER
- GROUND
- HANDICAP RAMP
- INVERT
- IRON PIPE
- LANDING
- LIP OF GUTTER
- OVERHEAD

P.U.E. PUBLIC UTILITIES EASEMENT
RCP REINFORCED CONCRETE PIPE
RWALL RETAINING WALL
ROW RIGHT OF WAY
SSCO SANITARY SEWER CLEAN-OUT
SSMH SANITARY SEWER MANHOLE
SDMH STORM DRAIN MANHOLE
TOC TOP BACK OF CURB
TOW TOP OF WALL
UNDERGROUND
VITRIFIED CLAY PIPE
WATER VALVE
WATER METER BOX
CABLE TELEVISION LINE
ELECTRICAL LINE
GAS LINE
SANITARY SEWER LINE
STORM DRAIN LINE
TELEPHONE LINE
WATER LINE

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 ZBICZAK
DOCUMENT # 92058811 O.R.
LOTS 6, 7 AND 8, BLOCK 1
"SHIPPS ACRES HALF MOON BAY, CALIFORNIA
FIRST ADDITION TO THE CITY OF RALSTON"
VOLUME 3 OF MAPS AT PAGE 35
ASSESSOR'S PARCEL NUMBER: 048-013-060
(MAGELLAN AVENUE)

B & H SURVEYING, INC.
PROFESSIONAL LAND SURVEYING

JOB: 3870-10
DWG: 3870-PM
BY: K. JOSE