COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: March 8, 2023

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of the adoption of an Initial Study/Mitigated Negative Declaration and the approval of Design Review and Grading Permits, to allow the construction of a new three-story, 4,249 sq. ft. single-family residence, 315 sq. ft. covered terrace, a 155 sq. ft. deck, and a 554 sq. ft. attached garage, on a 18,122 sq. ft. legal parcel in the unincorporated Palomar Park area of San Mateo County.

County File Number: PLN 2020-00251 (De Gans/Thalapaneni Jackson)

PROPOSAL

The applicant proposes construction of a new three-story, 4,249 sq. ft. single-family residence, 315 sq. ft. covered terrace, a 155 sq. ft. deck, and a 554 sq. ft. attached garage, on a 18,122 sq. ft. legal parcel (Lot Line Adjustment recorded on April 26, 1983). The property would be accessed from an improved existing gravel driveway and access easement located on 636 Palomar Drive and APN 051-022-250. The project involves 880 cubic yards (c.y.) of cut and 90 c.y. of fill; the project involves the removal of two (2) significant trees. The property is located within an existing residential neighborhood and adjoins developed parcels on the east, south, and southwest sides. The property slopes upward from Los Cerros Road with an average slope of approximately 34 percent.

RECOMMENDATION

That the Planning Commission certify the Initial Study/Mitigated Negative Declaration, and approve the Design Review Permit and Grading Permit, by making findings and adopting the conditions of approval in Attachment A.

SUMMARY

Compliance with Zoning Regulations: The project complies with the development standards of the S-91 Zoning District. At its October 26, 2022 meeting, the Bayside Design Review Committee (BDRC) recommended approval of the project subject to conditions requiring further reduction in the use of glass on the eastern and northern facades and change to roof design, included as Condition 3 of Attachment A of the staff

report, as well as to minimize tree removal which has been complied with. The applicant has revised his initial proposal to remove seven (7) significant trees to remove only two (2) significant trees (Trees 14, and 15), which conflict with proposed development. The applicant also proposes to remove a 5.14-inch California bay tree (Tree No. 13) which is not a significant tree and could be a carrier for the pathogen causing sudden oak death. As proposed, mitigated, and conditioned, the applicant is required to replace the trees with a minimum of three (3), 24-inch box Oak trees.

Conformance with the General Plan: Natural Hazards policies require detailed analysis of hazard risk and design of appropriate mitigation when development is proposed in these areas, including assessment of hazardous conditions. Site conditions related to geology are described in detail in Section 7 of the IS/MND. The site has experienced land sliding in the past (slope repair completed in 2020). The applicant has submitted reports prepared by the Project Geologist and Project Geotechnical Engineers, which note past landslides and landslide repair at the property. In an email dated May 13, 2022, the Project Geotechnical Engineer states that there are no unmitigated landslides within the area of influence to the site. As stated in their 2020 Geotechnical Report Update, it is the opinion of Atlas Geosphere Consultants, Inc. (Project Geologist and Geotechnical Engineer), that the residential development as planned is feasible from a geotechnical standpoint. Compliance with the recommendations of the Project Geologist and Geotechnical Engineer is a standard requirement and required by Mitigation Measure 9. In a letter dated August 2020 from Cotton, Shires and Associates, Inc. (CSA), CSA reviewed the project and associated studies on behalf of the County and has provided preliminary approval. All mitigation measures of the IS/MND have been added as conditions of approval in Attachment A of the staff report.

Environmental Review: An Initial Study/Mitigated Negative Declaration was prepared and circulated for public review from July 2, 2022, to July 22, 2022. The County received three (3) comment letters (included in Attachment F of the staff report), including a letter from the Palomar Park Owners' Association and neighbor, expressing concern with the land stability and the trees to be removed (discussed above), as well as potential springs on the property which may contribute to land instability, amongst other concerns. Regarding potential springs, the Project Geologist has stated that numerous borings encountered no ground water to support pervasive springs on the project site.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: March 8, 2023

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of the adoption of an Initial Study/Mitigated Negative Declaration, pursuant to the California Environmental Quality Act, the approval of a Design Review Permit, pursuant to Section 6565.3 of the Zoning Regulations, and Grading Permit, pursuant to Section 9283 of the County Ordinance Code, to allow the construction of a new three-story, 4,249 sq. ft. single-family residence, 315 sq. ft. covered terrace, a 155 sq. ft. deck, and a 554 sq. ft. attached garage, on a 18,122 sq. ft. legal parcel in the unincorporated Palomar Park area of San Mateo County. The property would be accessed from an improved existing gravel driveway located on 636 Palomar Drive and APN 051-022-250. The project involves 880 cubic yards (c.y.) of cut and 90 c.y. of fill and the removal of 2 significant trees.

County File Number: PLN 2020-00251 (De Gans/Thalapaneni Jackson)

PROPOSAL

The applicant proposes construction of a new three-story, 4,249 sq. ft. single-family residence, 315 sq. ft. covered terrace, a 155 sq. ft. deck, and a 554 sq. ft. attached garage, on a 18,122 sq. ft. legal parcel (Lot Line Adjustment recorded on April 26, 1983). The property would be accessed from an improved existing gravel driveway and access easement located on 636 Palomar Drive and APN 051-022-250. The project involves 880 cubic yards (c.y.) of cut and 90 c.y. of fill and the removal of two (2) significant trees. The property is located within an existing residential neighborhood and adjoins developed parcels on the east, south, and southwest sides. The property slopes upward from Los Cerros Road with an average slope of approximately 34 percent.

RECOMMENDATION

That the Planning Commission adopt the Initial Study/Mitigated Negative Declaration, and approve the Design Review Permit and Grading Permit, by making findings and adopting the conditions of approval in Attachment A.

BACKGROUND:

Report Prepared By: Camille Leung, Senior Planner

Applicant: Maurits de Gans, Senior Associate, M Designs Architects

Owner: Anusha Thalapaneni and David E. Jackson

Public Notification: Ten (10) day advanced notification for the hearing was mailed to property owners within 300 feet of the project parcel and a notice for the hearing posted in the San Mateo Times newspaper.

Location: Development of vacant parcel located at Palomar Drive and Los Cerros Road (Subject Property), and minor associated work at 636 Palomar Drive and APN 051-022-250, located in the unincorporated Palomar Park area of San Mateo County.

APN(s) and Property Size: APN 051-022-380 (18,122 sq. ft.; Subject Parcel). Project also involves work on APN 051-022-360 (Approx. 0.359 Acres) at 636 Palomar Drive, the adjoining parcel to east which uses a shared driveway and APN 051-022-250, as well as a vacant parcel to east of 636 Palomar Drive which also uses the shared driveway.

Existing Zoning: One-Family Residential/Combining District (Minimum Lot Size 10,000 sq. ft.)/Design Review (R-1/S-91/DR)

General Plan Designation: Medium Low Density Residential; Urban

Existing Land Use: Undeveloped

Water Supply: California Water Service - San Carlos

Sewage Disposal: Proposed septic system

Flood Zone: Flood Zone X (Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level), per FEMA Panel No. 06081C0282E, effective October 16, 2012.

Environmental Evaluation: An Initial Study/Mitigated Negative Declaration was prepared and circulated for public review from July 2, 2022, to July 22, 2022. The County received three (3) comment letters expressing concern with the land stability, drainage, house size and design, and trees to be removed, amongst other concerns. See Section B of this report for more further discussion.

Setting: The property is located within an existing residential neighborhood and adjoins developed parcels on the east, south, and southwest sides. Access is proposed via an access easement and an improved existing gravel driveway on 636 Palomar Drive and APN 051-022-250. The property slopes upward from Los Cerros Road with an average slope of approximately 34 percent.

Chronology:

Date		Action
April 2020	-	Completion of emergency slope repair of the front portion of the parcel along Los Cerros Road.
July 2, 2022	-	An Initial Study/Mitigated Negative Declaration was prepared and released for public review from July 2, 2022, to July 22, 2022. The County received several comment letters expressing concern with the land stability, drainage, house size and design, and trees to be removed, amongst other concerns. See Section B of this report for further discussion.
August 3, 2022	-	At a public meeting, the Bayside Design Review Committee (BDRC) continues its review of the project to address concerns expressed regarding the compatibility of the architectural style with the area; design of house to further step down with natural topography; and change color palette to comply with the design review standards.
October 26, 2022	-	At a public meeting, the BDRC recommends approval of the project subject to conditions requiring further reduction in the use of glass on the eastern and northern facades, change to roof design, and minimize tree removal.
December 2022/ January 2023	-	Applicant submits a revised design to address BDRC conditions and to demonstrate the preservation of 4 significant trees, where only 2 significant trees are now proposed for removal.
March 8, 2023	-	Planning Commission public hearing for Grading Permit.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

a. Soil Resources

Policy 2.23 *(Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion)* calls for the County to regulate excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation. The project includes earthwork of 880 c.y. of cut and 90 c.y. of fill, with a total area of land disturbance of 14,369 square feet. The applicant proposes an Erosion Control Plan which includes measures that would contain and slow run-off, while allowing for natural infiltration. Due to the potential for erosion and sedimentation during land disturbing and earth-moving activities, the IS/MND included Mitigation Measures 11 through 15, which are included as conditions of approval in Attachment A. As proposed, mitigated, and conditioned, the applicant would off-haul all cut spoils and implement stormwater pollution prevention measures, and the Project Engineer would regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance and corrections are performed.

b. Wastewater

Policy 11.5 *(Wastewater Management in Urban Areas)* calls for the County to: a. Consider sewerage systems as the appropriate method of wastewater management in urban areas; b. Encourage the extension of sewerage systems to serve unincorporated urban areas presently using individual sewage disposal systems where warranted by public health concerns, environmental pollution or the planned density of development; and c. Continue the use of existing individual sewage disposal systems in urban areas where lot sizes, site conditions, and planned densities are appropriate for these systems and where individual sewage disposal systems have functioned satisfactorily in the past. The site is not located within the service area of any sewer provider; the applicant proposes a septic system (also referred to as an on-site wastewater treatment system, OWTS). The applicant has submitted comprehensive, site-specific reports, including subsurface exploration and testing, for the project, which have been reviewed by the Project Geologist and Geotechnical Engineer as well as by the County's Geologist and Geotechnical Engineer, and

received preliminary approval from County Environmental Health Services.

c. Natural Hazards

Policy 15.12 *(Locating New Development in Areas Which Contain Natural Hazards)* calls for the County to: a. As precisely as possible, determine the areas of the County where development should be avoided or where additional precautions should be undertaken during review of development proposals due to the presence of natural hazards; b. Give preference to land uses that minimize the number of people exposed to hazards in these areas; c. Determine appropriate densities and development; and d. Require detailed analysis of hazard risk and design of appropriate mitigation when development is proposed in these areas, including assessment of hazardous conditions expected to be exacerbated by climate change, such as increased risks of fire, flooding, and sea level rise.

Site conditions related to geology are described in detail in Section 7 of the IS/MND. The site has experienced land sliding in the past (slope repair completed in 2020). The applicant has submitted reports prepared by the Project Geologist and Project Geotechnical Engineers, which note past landslides and landslide repair at the property. In an email dated May 13, 2022, the Project Geotechnical Engineer states that there are no unmitigated landslides within the area of influence to the site. As stated in their 2020 Geotechnical Report Update, it is the opinion of Atlas Geosphere Consultants, Inc. (Project Geologist and Geotechnical Engineer), that the residential development as planned is feasible from a geotechnical standpoint. Compliance with the recommendations of the Project Geologist and Geotechnical Engineer is a standard requirement and required by Mitigation Measure 9. In a letter dated August 2020 from Cotton, Shires and Associates, Inc. (CSA), CSA reviewed the project and associated studies on behalf of the County and has provided preliminary approval. All mitigation measures of the IS/MND have been added as conditions of approval in Attachment A.

2. COMPLIANCE WITH COUNTY ZONING REGULATIONS

The property is zoned One-Family Residential/Combining District (Minimum Lot Size 10,000 sq. ft.)/Design Review (R-1/S-91/DR). The proposed single-family residential use is allowed in the R-1 Zoning District.

a. Project Compliance with the Development Standards of the S-91 Zoning District

As shown in the table below, the project complies with the development standards of the S-91 Zoning District.

Development Standards	S-91 Zoning District	Proposed
Building Site Area	10,000 sq. ft.	18,122 sq. ft.
Maximum Building Site Coverage	30%	17.3% (3,131 sq. ft.)
Maximum Building Floor Area Ratio	5,036 sq. ft.	5,034 sq. ft.
Minimum Front Setback	20 ft.	54 ft. -9 in.
Minimum Rear Setback	20 ft.	49 ft.- 5 in.
Minimum Right Side Setback	10 ft.	15 ft.
Minimum Left Side Setback	10 ft.	11 ft.- 5 in.
Maximum Building Height	28 ft.	26 ft.-11 in.
Minimum Covered Parking Spaces	2 covered parking spaces	2 covered parking spaces

b. Project Compliance with Design Review Standards of the DR Zoning District:

At its August 3, 2022, and October 26, 2022 meetings, the Bayside Design Review Committee (BDRC) reviewed the project. Many emails were received, and many members of the public spoke at the public hearing. Concerns expressed by the members of the public focused on project design compatibility with existing houses in the neighborhood, privacy impacts, glare from windows, tree removal relative to slope stability, geological/hydrological concerns, and concerns regarding potential stormwater pollution from the proposed septic system. Staff clarified that the BDRC's review is limited to project compliance with design standards and that other issues are discussed in the IS/MND which will be reviewed by the Planning Commission. The BDRC recommended approval of the project subject to conditions requiring further reduction in the use of glass on the eastern and northern facades and change to roof design, included

as Condition 3 of Attachment A, as well as to minimize tree removal which has been complied with. The applicant has revised the proposal to remove only 2 significant trees (Trees14 and 15), described further in Section B, below.

3. COMPLIANCE WITH COUNTY GRADING REGULATIONS

The proposed project requires approximately 880 c.y. of cut and 90 c.y. of fill to accommodate the proposed building. Planning and Geotechnical staff have reviewed the proposal and submitted documents and determined that the project conforms to the criteria for review contained in the Regulations for Excavating, Grading, Filling and Clearing on Lands in Unincorporated San Mateo County (referred to in this report as "Grading Regulations"). The findings and supporting evidence are outlined below:

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

The project will have a less-than-significant impact on the environment with the implementation of standard conditions of approval which will require excavated earth to be off-hauled and deposited to an approved disposal location, require application of erosion control measures prior to and during project grading and construction, place limitations on grading during the wet season, and require the Project Engineer to submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval, and the Grading Regulations.

b. **That the project conforms to the criteria of the San Mateo County Grading Ordinance.**

The project, as it will be conditioned, conforms to the criteria for review contained in the Grading Regulations, including an erosion and sediment control plan and dust control measures.

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

As outlined earlier in Section A of this report, the project conforms to applicable components of the County's General Plan.

B. ENVIRONMENTAL REVIEW

An Initial Study/Mitigated Negative Declaration was prepared and circulated for public review from July 2, 2022, to July 22, 2022. The County received three (3) comment letters (included in Attachment F), including a letter from the Palomar Park Owners' Association, expressing concern with the land stability, drainage,

house size and design, and trees to be removed, amongst other concerns. The main concerns are summarized below, followed by staff's response.

Main Concerns:

1. Trees: The Palomar Park Owners' Association and Denise Enea at 738 Loma Court submitted letters stating that the initially proposed tree removal of seven (7) significant trees would negatively impact the stability of the property, due to the stabilization and drainage benefits provided by the root systems of the trees. The Palomar Park Owners' Association also stated that the trees provide an aesthetic benefit. The applicant has revised the proposal to remove only 2 significant trees (Trees 14 and 15) and a 5.14-inch California bay tree (which is not a significant tree), described below, which are located in the right-side setback.

Trees Proposed for Removal							
Tree No.	*Genus Species*	*Common Name*	*Diameter*	*Height*	*Spread*	*Condition*	*Reason for Removal*
13	Umbellularia californica	California bay	5.1 in.*	12 ft.	12 ft.	Good	Sudden oak death carrier
14	Quercus agrifolia	Coast live oak	21.1 in., 17.5 in.	40 ft.	60 ft.	Good	Within footprint of house
15	Aesculus californica	California buckeye	10.0 in.,6.4 in.	20 ft.	30 ft.	Good	Within leach field footprint
Source Arborist Report, dated December 12, 2020 (Attachment G of IS/MND) *Diameter of Tree No. 13 has been recently updated by the Project Arborist per their email of January 26, 2023. Tree No. 13 is not a significant tree as its diameter is less than 6-inch d.b.h.							

Staff has revised Mitigation Measure 1 of the IS/MND, as shown in Attachment A, to eliminate the requirement to replace exotic trees previously proposed for removal and to require the applicant to replace the three (3) indigenous trees with a minimum of three (3), 24-inch box Oak trees. The applicant proposes to plant these trees in the right-side setback to provide screening of the residence in the same location as the above listed trees proposed for removal.

2. Geology: A letter from Denise Enea states that the IS/MND significantly underplays and leaves out critical information regarding the long history of dangerous and destructive landslides on and directly adjacent to this parcel

and references letters from Kilik General Engineering, GeoForensics, Inc., Steven Connelly C.E.G., and Jeff Lea of Lea & Braze, which are included and analyzed in the IS/MND. As stated in Section 7 of the IS/MND, with the exception of the 2021 Connelly letter, the referenced letters describe recommendations based on brief reviews of the adjoining off-site properties. It is unclear if the letters represent a study of the project site, as they make only general reference to the site address, with no enclosed maps and no mention of specific site locations or the site APN. The 2021 Connelly report includes a review of the subject site but does not include subsurface exploration and testing. The applicant has submitted comprehensive, site-specific reports, including subsurface exploration and testing, for the proposed residence and septic system, which have been reviewed by and received preliminary approval from the County Environmental Health Services and the County's Geologist and Geotechnical Engineer, and staff's recommendation of approval is based on the analysis and conditions of approval recommended in those reports.

3. Hydrology: Ms. Enea states that *"ground water is the basis for the instability of the all the parcels"* and that the IS/MND *"does not include a vital report which I submitted to you. The hydrology report by Balance Hydrologic of 2014 examines and lays out the existence of a significant ground water supply which runs from the top of Loma Court thru the 634 Palomar parcel as well as the 738 Loma Court and 0 Los Cerros parcel. Page 20 of the IS/MND cites the report titled "Spring Source and Protection Reconnaissance, prepared by Balance Hydrologics, Inc., for APN 051-022-310, dated April 16, 2014".* This report maps spring areas on the two parcels, APNs 051-022-310 and 051-022-180, but does not map any springs on the subject parcel. A landslide that was repaired in April 2020 is mapped at the front of the subject property.

   Ms. Enea states that past drilling at the property by a previous owner caused water from an underground spring to flood the street and eroded the pavement. She states that, if grading and pier drilling are attempted on this parcel, there is a high chance that flooding of roadways would occur, resulting in traffic impacts.

   As stated in the IS/MND, and in an email dated May 13, 2022, the Project Geotechnical Engineer states that the 2013 Earth Investigations Consultants Geotechnical Investigation mentions no observed seepage from the ground surface (i.e., spring), and all the borings drilled on 634 Palomar Drive site encountered no ground water, with the exception of in the 2017 Earth Investigations Consultants Geotechnical Investigation when slight seepage perched at the top of bedrock 3 feet below the ground surface B-2 in the lower northeast corner (approx. site elevation 68). Numerous other borings encountered no ground water to support a conclusion that pervasive springs exist on the project site.

As stated in their 2020 Geotechnical Report Update, it is the opinion of the Project Geologist and Geotechnical Engineer, that the residential development as planned is feasible from a geotechnical standpoint. Compliance with the recommendations of the Project Geologist and Geotechnical Engineer is a standard requirement and required by Mitigation Measure 9. The County's Geotechnical Section has reviewed the project and associated studies and has provided preliminary approval.

4. Traffic: Ms. Enea states that a past pier drilling project at the site caused flooding and associated damage to neighborhood driveways and roadways, due to water run-off from on-site springs. Please see the above section regarding minimal springs found at the property. Additionally, as proposed and conditioned, run-off from the property would be minimized by erosion control measures. Additionally, road repair of damage caused by the project is required per Condition 62.

5. Aesthetics: Ms. Enea states that the proposed residence will affect the views of properties at 730 Loma Court and 722 Palomar Drive. As discussed in the IS/MND, the site is visible from adjoining areas within the residential area in which it is located. As the new residence and driveway would abut developed residential property and blend in with other houses and driveways in the area, the project would not have a significant adverse effect on views from existing residential areas.

C. REVIEWING AGENCIES

Building Inspection's Drainage Section
Building Inspection Geotechnical Section
County Environmental Health Services
County Department of Public Works
County Arborist
San Mateo County Fire
California Water Service – San Carlos

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Project Plans
D. Design Review Recommendation Letter
E. Initial Study/Mitigated Negative Declaration (Attachments excluded here; Available at: https://www.smcgov.org/planning/mitigated-negative-declaration-thalapanenijackson-residence-septic-system-and-improved)
F. Comment letters received for IS/MND

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COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT A

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Project File Number: PLN 2020-00251 Hearing Date: March 8, 2023

Prepared By: Camille Leung, Project Planner For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Initial Study/Mitigated Negative Declaration, Find:

1. That the Planning Commission does hereby find that the Initial Study/Mitigated Negative Declaration reflects the independent judgment of San Mateo County.

2. That the Initial Study/Mitigated Negative Declaration is complete, correct, and adequate and prepared in accordance with the California Environmental Quality Act (CEQA) and applicable State and County Guidelines.

3. That on the basis of the Initial Study/Mitigated Negative Declaration, comments received hereto, testimony presented and considered at the public hearing, and based on analysis contained in the staff report prepared for the Planning Commission, there is no substantial evidence that the project will have a significant effect on the environment.

4. That the Mitigation Measures (numbered 1 through 22) in the Initial Study/Mitigated Negative Declaration and agreed to by the owner and placed as conditions on the project address the Mitigation Monitoring and Reporting Plan requirements of California Public Resources Code Section 21081.6.1. The Mitigation Measures have been included as conditions of approval in this attachment. This attachment shall serve as the Mitigation Monitoring and Reporting Plan. Edits made to mitigation measures are used to strengthen and clarify mitigation measures and do not reduce the level of required mitigation.

Regarding the Design Review, Find:

5. After consideration of project plans and public testimony, the project, as proposed and conditioned on October 26, 2022, is in compliance with the Design Review Standards based on the site planning and colors and materials which provide compatibility with surrounding residences.

a. Section 6565.16 G. Materials and Colors - Make varying architectural styles compatible by using similar materials and colors which blend with the natural setting and the immediate area. Avoid the use of building materials and colors which are highly reflective and contrasting by requiring them to blend and harmonize with the natural woodland environment and vegetation of the area. The proposed colors and materials comply with this standard. Reduce the amount of glass windows on eastern and northern facades (dining and living room), by eliminating the middle window and replacing it with a wall segment.

b. Section 6565.16 F. Roofs - Design buildings using primarily pitched roofs. Design buildings with roofs that reflect the predominant architectural styles of the immediate area. Replace low-slope hip roof design with low-slope shed roof. Apply roof changes to all roof elements, including 3rd level roof, and 2nd level roof, all sides as appropriate, for consistent applications around the home. Include overhangs on the uphill side, back side, and upper deck areas with overhangs not to exceed 4 feet.

c. Section 6565.16 J. Lighting – All overhangs to have soffits with a minimal number of lights.

d. Section 6565.16 A. Site Planning – Minimize alteration of the natural topography; respect the privacy of neighboring houses and outdoor living areas; and minimize tree removal. Site planning is compliant with this standard and the elevation of the building has been kept low to protect views. The project has been modified to save as many existing trees as possible.

<u>Regarding the Grading Permit, Find:</u>

6. That the granting of the permit will not have a significant adverse effect on the environment. The project, as proposed and conditioned, has been reviewed and preliminarily approved by the Planning and Building Department's Geotechnical Section and the Department of Public Works, with conditions incorporated into Attachment A of the staff report. As analyzed in the staff report, with imposition of the conditions of approval, the project would not have a significant adverse effect on the environment.

7. That this project, as conditioned, conforms to the criteria of the San Mateo County Grading Regulations and is consistent with the General Plan. The project, as it will be conditioned, conforms to the criteria for review contained in the Grading Regulations, including an erosion and sediment control plan and dust control measures. The project conforms to the applicable components of the County's General Plan.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The project shall be constructed in compliance with the plans approved by the Planning Commission on March 8, 2023, and in compliance with the plans reviewed by the Bayside Design Review Committee (BDRC) on October 26, 2022. Any changes or revisions to the approved plans shall be submitted for review by the Community Development Director to determine if they are in substantial compliance with the approved plans, prior to being incorporated into the building plans. Adjustments to the design of the project may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Adjustments to the design during the building permit stage may result in the requirement for additional plan resubmittal or assessment of revision fees. Alternatively, the Design Review Officer may refer consideration of the adjustments, if they are deemed to be major, to a new BDRC public hearing which requires payment of an additional fee of $1,500.

2. The design review and grading permit shall be valid for five (5) years from the date of final approval, in which time a building permit shall be issued, and a completed inspection (to the satisfaction of the building inspector) shall have occurred within 180 days of its issuance. The design review approval may be extended by one time for a one (1) year increment with submittal of an application for permit extension and payment of applicable extension fees 60 days prior to the expiration date.

3. The applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Bayside Design Review Committee:

    a. Reduce the amount glass windows on eastern and northern facades (dining and living room), by eliminating the middle window and replacing it with a wall segment.

    b. Replace low-slope hip roof design with low-slope shed roof. Apply roof changes to all roof elements, including 3rd level roof, and 2nd level roof, all sides as appropriate, for consistent applications around the home. Include overhangs on the uphill side, back side, and upper deck areas with overhangs not to exceed 4 feet.

    c. All overhangs to have soffits with a minimal number of lights.

4. At the time of building permit application, the applicant shall submit a tree protection plan for any work within tree driplines or adjacent to off-site trees, including the following:

    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. Prior to Issuance of a building 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.

5. The approved exterior colors and materials shall be verified prior to final approval of the building permit. The applicant shall provide photographs to the Design Review Officer to verify adherence to this condition prior to a final building permit approval by the Current Planning Section.

6. Prior to the Current Planning Section 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. 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).

7. 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.

8. 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.

9. The applicant shall adhere to all requirements of the Building Inspection Section, the Department of Public Works, and San Mateo County Fire.

10. No site disturbance shall occur, including any grading or tree/vegetation removal, until a building permit has been issued. Once a building permit has been issued for the residence, the applicant may remove only Trees 13, 14, and 15. All other trees must be protected during grading and construction in accordance with the Arborist Report. Compliance with Tree Protection Plan of the Arborist Report shall be demonstrated on plans submitted for the building permit application.

11. 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 impede through traffic along the right-of-way on Palomar Drive. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on Palomar Drive. There shall be no storage of construction vehicles in the public right-of-way.

12. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m., weekdays, and 9:00 a.m. to 5:00 p.m., Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo County Ordinance Code Section 4.88.360).

13. At the building permit application stage, the project shall demonstrate compliance with the Water Efficient Landscape Ordinance (WELO), including requirements for final inspection.

14. Add notes to plans submitted for a building permit with the following minimum dust control measures:

    a. Water all construction and grading areas at least twice daily.

    b. Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least 2 feet of freeboard.

    c. Apply water two times daily or apply (non-toxic) soil on all unpaved access roads, parking areas, and staging areas at the project site.

    d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

    e. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

Mitigation Measures of the Initial Study/Mitigated Negative Declaration: Edits made to mitigation measures, as shown in ~~strikethough~~ (deletions) and underline (additions), are used to strengthen and clarify mitigation measures and do not reduce the level of required mitigation.

15. **Mitigation Measure 1**: The applicant shall replace the~~ 2 significant exotic trees and 5~~2 significant indigenous trees proposed for removal with a total of~~ 5 replacement trees, to include minimum of~~ three (3), 24-inch box Oak trees, to be planted in the right-side setback~~ with the remaining trees to be a minimum of 15 gallon in size~~. Prior to the issuance of the building permit for the residence, the Planting Plan shall be reviewed and subject to the approval of the Project Arborist and project planner.

16. **Mitigation Measure 2**: Prior to any land disturbance and throughout the grading operation, the applicant shall implement the tree protection measures consistent with the County's Significant Tree Ordinance in addition to the construction procedures and tree protection measures provided by the Project Arborist.

17. **Mitigation Measure 3**: Upon the start of excavation activities and through to the completion of the project, the applicant shall be responsible for ensuring that the following dust control guidelines are implemented:

    a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

    b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

h. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

i. Construction-related activities shall not involve simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously).

18. **Mitigation Measure 4**: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting) or similar material shall not be used. The applicant shall demonstrate compliance with this requirement in plans submitted at the time of building permit application.

19. **Mitigation Measure 5**: A pre-construction, migratory bird nesting survey shall be conducted prior to any proposed construction-related activities during the nesting bird season (February 1 to August 31). The survey shall be performed both in and within 250 feet of the proposed development area and the results reported to the County. If, for any reason, construction activities do not commence within 10 days of completion of the survey, the survey shall be repeated, and results reported to the County. If active nests are discovered, no construction-related activities, including grading and tree removal, are allowed until birds have fledged from nests, as confirmed by a biologist.

20. **Mitigation Measure 6**: Although proposed project area itself has low possibility of containing unrecorded archaeological site(s), it is possible that subsurface deposits may yet exist or that evidence of such resources has been obscured by more recent natural or cultural factors such as downslope aggradation and alluviation and the presence of non-native trees and vegetation. Archaeological and historical resources and human remains are protected from unauthorized disturbance by State law, and supervisory and construction personnel therefore must notify the County and proper authorities if any possible archaeological or historic resources or human remains are encountered during construction activities and halt construction to allow qualified Archaeologists to identify, record, and evaluate such resources and recommend an appropriate course of action.

21. **Mitigation Measure 7**: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The cost of the qualified archeologist and any recording, protecting, or curating shall be borne solely by the project sponsor. The archeologist shall be required to submit to the Community Development Director for review and approval a report of the findings and methods of curation or protection of the resources. No further grading or site work within the area of discovery shall be allowed until the preceding has occurred. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

22. **Mitigation Measure 8**: The applicants and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains, whether historic or prehistoric, during grading and construction. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately, and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

23. **Mitigation Measure 9**: Prior to the issuance of a building permit for site development, the applicant shall demonstrate compliance with the recommendations of the Project Geologist and Geotechnical Engineer, including but not limited to those pertaining to: 1) mitigation of undocumented fill in the proposed house development area, 2) treatment of fill along the proposed/improved driveway in accordance with the recommendations for grading and/or retaining wall construction presented in Appendix A of the 2020 Geotechnical Report Update and 3) supplemental recommendations to accommodate design and construction of the proposed swimming pool (Source: 2020 Atlas Geosphere Consultants, Inc., Geotechnical Report Update).

24. **Mitigation Measure 10**: Prior to the issuance of a building permit for site development, the applicant shall demonstrate compliance with the recommendations of the County's Geologist and Geotechnical Engineer, including but not limited to those pertaining to: 1) Close coordination with the Project Geotechnical Consultant in design of proposed foundations, retaining walls, drainage improvements, and landscape irrigation which may benefit project performance; 2) Submittal of an updated geotechnical report with supplemental recommendations, design criteria, and supporting data, as appropriate; and 3) Project design and final plans should incorporate geotechnical recommendations and design criteria to mitigate site constraints as identified by the Project Geotechnical Consultant (Source: Craig Stewart, CSA, email to County, dated August 28, 2020).

25. **Mitigation Measure 11**: Prior to issuance of the grading permit hard card, the applicant shall demonstrate that all cut spoils will be hauled off-site to a County-approved location.

26. **Mitigation Measure 12**: Prior to the issuance of the building permit for the residence, the applicant shall revise the Erosion Control Plan to include the additional measure as follows, subject to the review and approval of the Community Development Director:

    Construction Entrance: The Project Civil Engineer shall propose a method for stabilizing the area of the existing driveway (access easement) that will be re-graded on APN 051-022-250, while still allowing access over the driveway by the neighbors. The applicant shall move the temporary parking area, storage container, construction office, and sanitation unit to an area which does not block the construction entrance.

27. **Mitigation Measure 13**: The applicant shall adhere to the San Mateo County-wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

    a. Delineation with field markers 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 (on and off-site) and maintenance of erosion control measures continuously between October 1 and April 30. Stabilization shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as re-vegetating disturbed areas with plants propagated from seed collected in the immediate area.

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 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 applications 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 site shall be clear and running slowly at all times.

28. **Mitigation Measure 14**: Once approved, erosion and sediment control measures of the revised Erosion Control Plan shall be installed prior to beginning any site work and maintained throughout the term of grading and construction, until all disturbed areas are stabilized. Failure to install or maintain these measures will result in stoppage of construction until corrections have been made and fees paid for staff enforcement time. Revisions to the approved erosion control plan shall be prepared and signed by the engineer and submitted to the Building Inspection Section.

29. **Mitigation Measure 15**: It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.

30. **Mitigation Measure 16**: At the time of building permit application, the applicant shall demonstrate compliance with the measures indicated on the applicant completed EECAP Development Checklist (Attachment H) or equivalent measures~~, to the extent feasible~~. Such measures shall be shown on building plans.

31. **Mitigation Measure 17**: At the time of building permit application, the applicant shall demonstrate compliance with the following measures, ~~to the extent feasible,~~ or equivalent measures, where such measures shall be shown on building plans:

    a. BAAQMD BMP: Use alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15% of the fleet.

    b. BAAQMD BMP: Use local building materials of at least 10 percent.

    c. BAAQMD BMP: Recycle or reuse at least 50% of construction waste.

32. **Mitigation Measure 18**: Any and all project-related on-street construction parking is subject to review and approval by the Project Planner and the County Department of Public Works. Prior to issuance of the building permit, the applicant shall show location of all on-street construction parking on plans submitted for the building permit application.

33. **Mitigation Measure 19**: The project shall not use a pile-driven pier foundation.

34. **Mitigation Measure 20**: Should any traditionally or culturally affiliated Native American tribe respond to the County's issued notification for consultation, such process shall be completed and any resulting agreed upon measures for avoidance and preservation of identified resources be taken prior to implementation of the project.

35. **Mitigation Measure 21**: Any inadvertently discovered tribal cultural resources shall be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

36. **Mitigation Measure 22**: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery, County staff shall be notified, and the applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate.

County Arborist

37. At the time of building permit application, please submit an updated construction entrance detail to include use of Tensar geogrid (or equivalent), per Project Arborist recommendations.

Building Inspection Section

38. A building permit is required.

Drainage Section

39. At the time of the building permit submittal, the project shall be required to comply with the County's "prescriptive" drainage review requirements and provide the following:

    a. Final Drainage Report stamped and signed by a registered Civil Engineer.

    b. Final Grading and Drainage Plan stamped and signed by a registered Civil Engineer depicting a storage and metering stormwater retention system and subdrain system(s) consistent with the requirements in the County's current Drainage Manual.

    c. Final C.3 and C.6 Development Review Checklist.

Geotechnical Section

40. In plans submitted for the building permit application, the project design team shall demonstrate close coordination with the Project Geotechnical Consultant in the design of proposed foundations, retaining walls, and drainage improvements.

41. An updated geotechnical report with supplemental recommendations, design criteria, and supporting data, as appropriate, should be submitted at the time of building permit application for final peer review along with project plans.

42. In plans submitted for the building permit application, project design and final plans should incorporate anticipated geotechnical recommendations and design criteria to mitigate site constraints as identified by the Project Geotechnical Consultant.

San Mateo County Fire Department

All fire conditions and requirements must be incorporated into your building plans, (see attached conditions) prior to building permit issuance. It is your responsibility to notify your contractor, architect and engineer of these requirements

43. Add Note to plans: New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. The letters/numerals for permanent address signs shall be 4 inches in height with a minimum 1/2-inch stroke. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. Where buildings are located remotely to the public roadway, additional signage at the driveway/roadway entrance leading to the building and/or on each individual building shall be required. This remote signage shall consist of a 6 inch by 18 inch green reflective metal sign with 3 inch reflective Numbers/ Letters similar to Hy-Ko 911 or equivalent. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE).

44. Vegetation Management (LRA) – Add note to plans: A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. This is neither a requirement nor an authorization for the removal of living trees. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity. Remove that portion of any existing trees, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.

45. Add Note to plans: The building is in a Very High Fire Hazard Severity Zone and will require a Class A roof.

46. Add Note to plans: Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. As per the California Building Code, and State Fire Marshal regulations, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hard wired, interconnected, and have battery backup. These detectors are required to be placed in each new and recondition sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final. Date of installation must be added to exterior of the smoke alarm and will be checked at final. Smoke alarms to be installed per manufactures instruction and NFPA 72.

47. Add Note to plans: Escape or rescue windows shall have a minimum net clear openable area of 5.7 sq. ft., 5.0 sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor. (CFC 2019 section 1030.2).

48. Identify rescue windows in each bedroom and verify that they meet all requirements. Add this to plans.

49. A plan and profile of the driveway/ roadway will be needed. Add to the plans.

50. Add Note to plans: Dead end emergency access exceeding 150 feet shall be provided with width and turnaround provisions meeting California Fire Code Appendix D.

51. Add Note to plans: Fire apparatus access roads to be an approved all-weather surface. Grades 15% or greater to be surfaced w/ asphalt, or brushed concrete. Grades 15 % or greater shall be limited to 150 feet in length with a minimum of 500 feet between the next section. For roads approved less than 20 feet, 20 feet wide turnouts shall be on each side of 15% or greater section. No grades over 20 percent. (Plan and profile required) CFC 503.

52. A Knox padlock or key switch will be required if there is limited access to property. CFC 506.1. For application and instructions please contact Smcfdfiremarshal@fire.ca.gov, if you need further assistance, please contact the County Fire Department at 650/726-5213.

53. Gates shall be a minimum of 2 feet wider than the access road/driveway they serve. Overhead gate structures shall have a minimum of 15 feet of vertical clearance. Locked gates shall be provided with a Knox Box or Knox Padlock. Electric gates shall have a Knox Key Switch. Electric gates shall automatically open during power failures. CFC 503.6, 506.

54. Add Note to plans: Fire Hydrant: Due to the size of the structure (over 3600 sq. ft.), as per 2019 CFC, Appendix B and C, an approved fire hydrant (Clow 960) shall be located within 500 feet of the proposed single-family dwelling unit measured by way of drivable access with a minimum fire flow of 875 per minute at 20 pounds per square inch. Contact the local purveyor for water flow details.

55. Show location of fire hydrant on a site plan. A fire hydrant is required within 500 feet of the building and flow a minimum of 875 gpm at 20 psi. This information is to be verified by the water purveyor in a letter initiated by the applicant and sent to San Mateo County Fire/CAL Fire. If there is not a hydrant within 500 feet with the required flow, one will have to be installed at the applicant's expense.

56. Add Note to plans: Automatic Fire Sprinkler System: (Fire Sprinkler plans will require a separate permit). The applicant is required to install an automatic fire sprinkler system throughout the proposed or improved dwelling and garage. All attic access locations will be provided with a pilot head on a metal upright. Sprinkler coverage shall be provided throughout the residence to include all bathrooms, garages, and any area used for storage. The only exception is small linen closets less than 24 sq. ft. with full depth shelving. The plans for this system must be submitted to the San Mateo County Planning and Building Department. A building permit will not be issued until plans are received, reviewed and approved. Upon submission of plans, the County will forward a complete set to the County Fire Department for review.

57. Installation of underground sprinkler pipe shall be flushed and visually inspected by Fire District prior to hook-up to riser. Any soldered fittings must be pressure tested with trench open. Please call the San Mateo County Fire Marshal's office to schedule an inspection.

58. Exterior bell: is required to be wired into the required flow switch on your fire sprinkler system.

59. Add note to the title page that the building will be protected by an automatic fire sprinkler system.

Department of Public Works

60. 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.

61. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

62. 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.

63. Should the access shown on the plans go through neighboring properties, the applicant shall provide documentation that "ingress and egress" easements exist providing for this access, prior to issuance of planning permit.

County Environmental Health Services

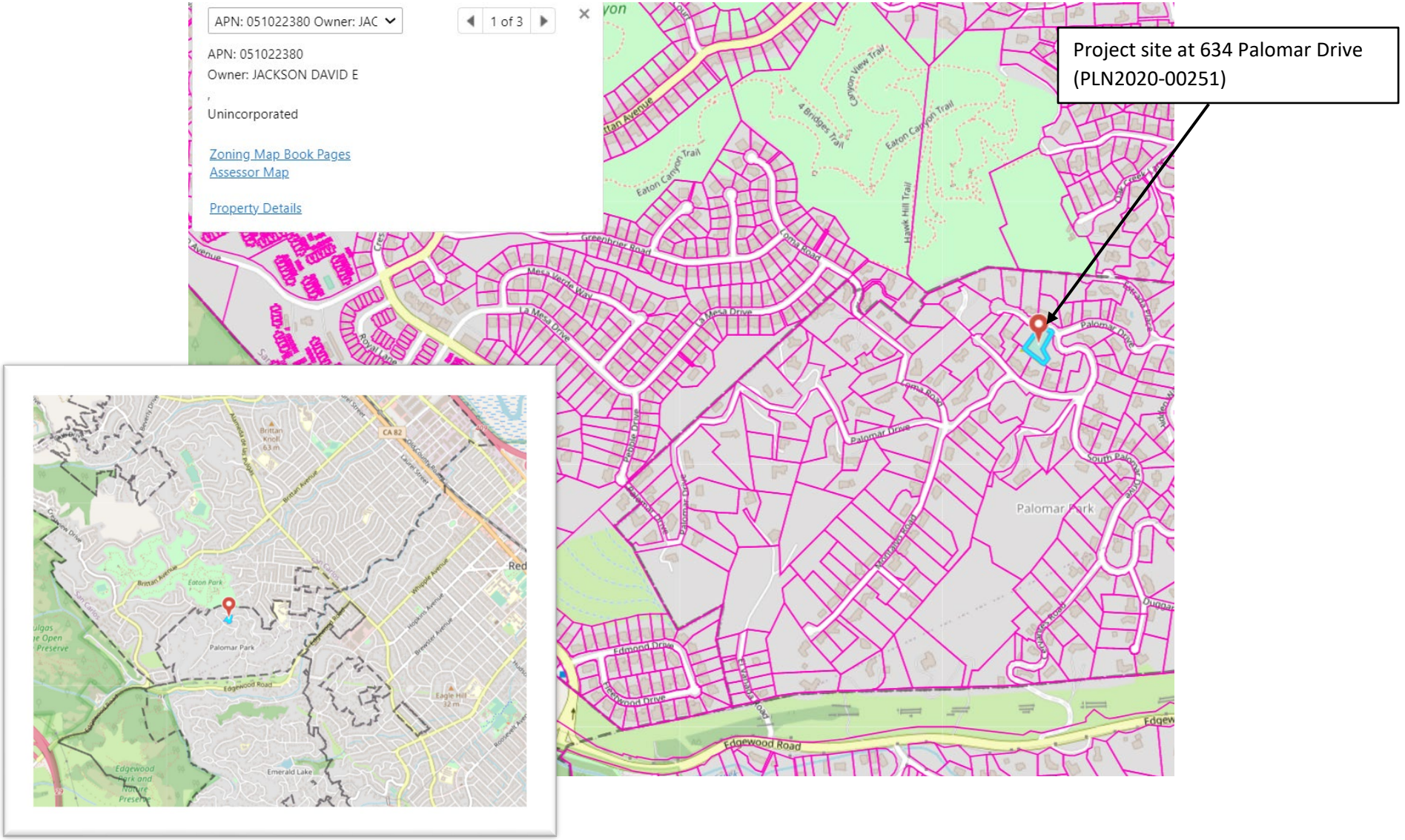
64. At the building permit application stage, the applicant shall submit plans consistent with the On-site Wastewater Treatment System (OWTS) design that has been reviewed and preliminarily approved by Environmental Health Services.

CML:mda – CMLHH0040_WMU.DOCX

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

ATTACHMENT B – VICINITY MAP

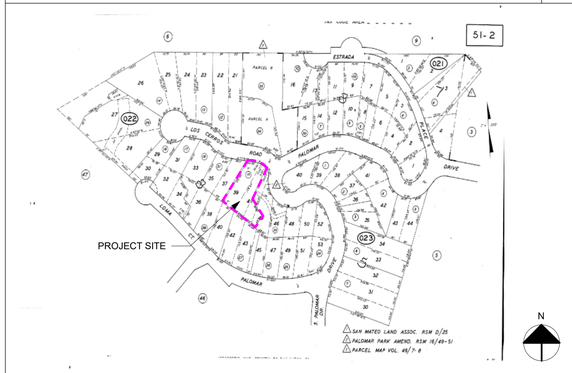


COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

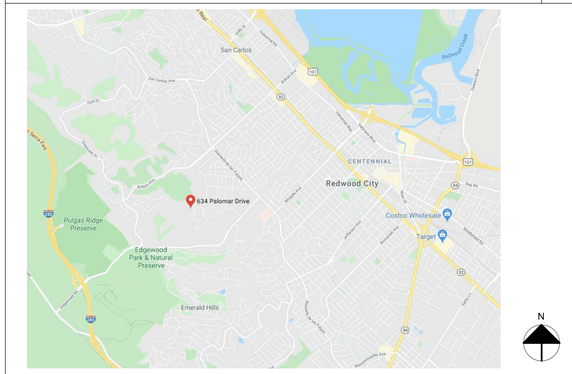
ATTACHMENT C

NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

PARCEL MAP 1



VICINITY MAP 2



SHEET INDEX 3

CODE COMPLIANCE 4

APPLICABLE CODES
2019 CALIFORNIA BUILDING CODE
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
2019 CALIFORNIA ELECTRICAL CODE
2019 CALIFORNIA MECHANICAL CODE
2019 CALIFORNIA PLUMBING CODE
2019 CALIFORNIA FIRE CODE
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA RESIDENTIAL CODE
REDWOOD CITY MUNICIPAL CODE

CODE SUMMARY

OCCUPANCY:	R3/U
OCCUPANT LOAD:	200 GROSS
TYPE OF CONSTRUCTION:	V-B
FIRE SUPPRESSION:	SPRINKLED
OCCUPANCY SEPARATION:	1-HOUR
HEIGHT MAXIMUM:	28'-0"
ALLOWABLE FLOOR AREA RATIO:	5,036.73 SF
ALLOWABLE COVERAGE:	5,436.73 SF

DEFFERED SUBMITTALS
- POOL
- PRE-MANUFACTURED GUARDRAILS & HANDRAILS
- PRE-MANUFACTURED STAIRWAY
- POTABLE WATER
- GAS LINE DIAGRAM
- LANDSCAPING
- FIRE SUPPRESSION SYSTEM
  - THE BUILDING SHALL BE PROTECTED BY AN AUTOMATIC FIRE SPRINKLER SYSTEM.
- FIRE ALARM SYSTEM

PROJECT TEAM 5

OWNERS
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062
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DAVID JACKSON

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EMAIL: mhelton@gkengineers.com

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LEA & BRAZE ENGINEERING, INC.
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SAN JOSE, CA 95125
CONTACT: PETE CARLINO
PHONE: 510.887.4086 x.117
EMAIL: pcarlino@leabraze.com

LANDSCAPE
CONTACT: YANIV SHMELZER
PHONE: 408.702.5141
EMAIL: yaniv@visiontocompletion.com

GENERAL CONTRACTOR
CONTACT: TBD
PHONE:
EMAIL:

GEOTECHNICAL SERVICE
GEOSPHERE CONSULTANTS, INC.
CONTACT: JOEL BALDWIN
PHONE: 650.557.0262
EMAIL: earthinvestigations@comcast.net

ARBORIST
TREE MANAGEMENT EXPERTS
3109 SACRAMENTO STREET
SAN FRANCISCO, CA 94115
CONTACT: ROY C. LEGGITT, III
PHONE: 415.921.3610
EMAIL: RCL3@mindspring.com

PROJECT DATA TABLES 6

ZONING SUMMARY

ZONE:	R-1,S-91 COMBINING DISTICT, DR - PALOMAR PARK
APN:	051-022-380
FLOOD ZONE:	X
PUBLIC R.O.W.:	NA
CONFORMITY:	VACANT LOT
LOT DIMENSIONS:	+/- 18,122 SF (VERIFY SURVEY)
SCOPE OF WORK:	NEW RESIDENCE ON A VACANT LOT BASEMENT + TWO-STORIES AND OUTDOOR SWIMMING POOL

LOT AREA SUMMARY

DESCRIPTION	EXISTING	PROPOSED	ALLOWED
FLOOR AREA RATIO	NA	4873.00 SF	5036.73 SF
LOT COVERAGE	NA	3131.00 SF	5436.6 SF
LANDSCAPE AREA	NA	####SF	####SF

FAR BREAKDOWN	EXISTING	PROPOSED	ALLOWED
BASEMENT	N/A	1041.00 SF	
FIRST FLOOR	N/A	2491.00 SF	
SECOND FLOOR	N/A	1340.00 SF	
TOTAL	N/A	5034.00 SF	5036.73 SF

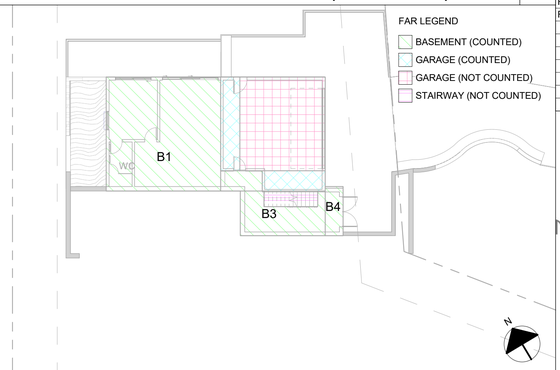
HEIGHT			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
HEIGHT	NA	27'-2"	28'-0"
DAYLIGHT PLANE	NA	20'-0" 45d	20'-0" 45d

SETBACK LINES			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
FRONT	NA	61'-10"	20'-0"
REAR	NA	50'-1"	20'-0"
LEFT SIDE	NA	15'-8"	10'-0"
RIGHT SIDE	NA	10'-0"	10'-0"

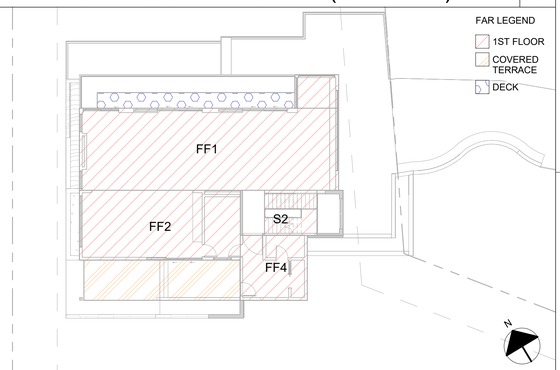
PARKING SUMMARY			
DESCRIPTION	EXISTING	PROPOSED	REQUIRED
ENCLOSED PARKING	NA	2	2
OPEN PARKING OR CARPORT	NA	1	1
EV CHARING STATIONS	NA	2	NA

DRIVEWAY			
DESCRIPTION	EXISTING	PROPOSED	ALLOWED
NUMBER OF CURB CUTS	NA	NA	
CURB CUT WIDTH	NA	NA	
DRIVEWAY WIDTH	NA	16'-0"	
DRIVEWAY LENGTH	NA	10'-0"	

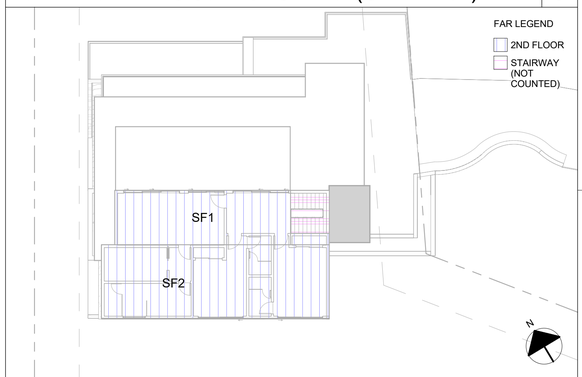
FAR - BASEMENT DIAGRAM (SEE A1.2) 7



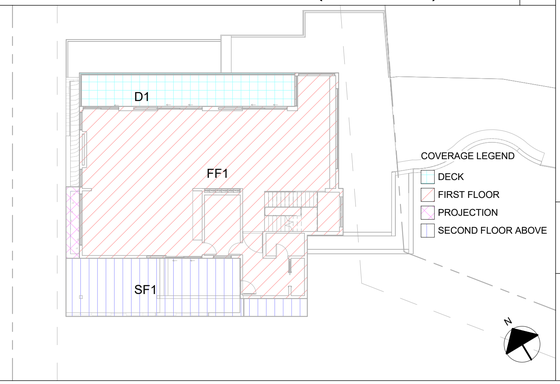
FAR - 1ST FLOOR DIAGRAM (SEE A1.2) 8



FAR - 2ND FLOOR DIAGRAM (SEE A1.2) 9



LOT COVERAGE DIAGRAM (SEE A1.3) 10



Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021
REVISION 4	11/17/2022

M DESIGNS ARCHITECTS
4131 WEST EL CAMINO REAL, SUITE 200, PALO ALTO CA 94306

www.mdesignsarchitects.com
Email: info@mdesignsarchitects.com
Phone: 650-565-9036
Fax: 949-625-7869

NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

TITLE SHEET

12/12/2022

T0.1

San Mateo County

Planning and Building Department

Planning Permit Application Form

455 County Center, 2nd Floor • Redwood City CA 94063
Mail Drop: PLN 122 • TEL (650) 363-4161 • FAX (650) 363-4849
www.co.sanmateo.ca.us/planning

PLN:

BLD:

Applicant/Owner Information

Applicant: Maurits de Gans

Mailing Address: 4131 W. El Camino Real Suite 200.

Palo Alto, CA Zip: 94306

Phone,W: 6505659036 H:

E-mail Address: maurits@mdesignsarchitects.com FAX:

Name of Owner (1): Anusha Thalapaneni	Name of Owner (2): David Jackson
Mailing Address: 634 Palomar Drive	Mailing Address: 634 Palomar Drive
Redwood City, CA	Redwood City, CA
Zip: 94062	Zip: 94062
Phone,W: 6507960800	Phone,W: 6502239468
H:	H:
E-mail Address: athalapa@gmail.com	E-mail Address: djackson52@gmail.com

Project Information

Project Location (address): 634 Palomar Drive, Redwood City, CA

Zoning: R-1/S-91/DR

Assessor's Parcel Numbers: 51 — 22 — 380

Parcel/lot size: 18,295 SF (Square Feet)

List all elements of proposed project: (e.g. access, size and location, primary and accessory structures, well, septic, tank)

Shared access driveway on existing easement. Primary 4269 sf residence with 4 bedrooms, 4 bathrooms, and pool incorporated into footprint. Septic field and tank behind house.

Describe Existing Site Conditions/Features (e.g. topography, water bodies, vegetation):

Existing site is moderately sloped vacant lot with natural vegetation including healthy trees and native grasses.

Describe Existing Structures and/or Development:

Vacant lot

Signatures

We hereby certify that the information stated above and on forms, plans and other materials submitted herewith in support of the application is true and correct to the best of our knowledge. It is our responsibility to inform the County of San Mateo through our assigned project planner of any changes to information represented in these submittals.

Owner's signature: Anusha Thalapaneni

Owner's signature: David Jackson

Applicant's signature:

County of San Mateo

Environmental Information Disclosure Form

Planning and Building Department

PLN

BLD

Project Address: 634 Palomar Drive
Redwood City, CA

Assessor's Parcel No.: 51 — 22 — 380

Zoning District: R-1/S-91/DR

Name of Owner: Anusha Thalapaneni & David Jack

Address: 634 Palomar Drive
Redwood City, CA Phone:

Name of Applicant: Maurits de Gans

Address: 4131 W. El Camino Real Suite 200
Palo Alto, CA Phone: 6505659036

Existing Site Conditions

Parcel size: 18,295

Describe the extent and type of all existing development and uses on the project parcel, including the existence and purpose of any easements on the parcel, and a description of any natural features on the project parcel (i.e. steep terrain, creeks, vegetation). Existing property is a vacant lot in Palomar Park region of SMC. 12' easement provides access from the south-

Existing property is a vacant lot in Palomar Park region of SMC. 12' easement provides access from the south-east. Scattered trees noted in Arborist report amongst native grasses.

Environmental Review Checklist

1. California Environmental Quality Act (CEQA) Review

Yes	No	Will the project involve:
☐	■	a. Addition to an existing structure > 50% of the existing area OR > 2,500 sq. ft?
☐	■	b. Construction of a new multi-family residential structure having 5 or more units?
☐	■	c. Construction of a commercial structure > 2,500 sq.ft?
■	☐	d. Removal of mature tree(s) (≥ 6" d.b.h. in Emerald Lake Hills area or ≥ 12" d.b.h. in any residential zoning district)? If yes, how many trees to be removed? 3
■	☐	e. Land clearing or grading? If yes, please state amount in cubic yards (c.y.): Excavation : _____ c.y. Fill: _____ c.y.
☐	■	f. Subdivision of land into 5 or more parcels?
☐	■	g. Construction within a State or County scenic corridor?
☐	■	h. Construction within a sensitive habitat?
☐	■	i. Construction within a hazard area (i.e. seismic fault, landslide, flood)?
☐	■	j. Construction on a hazardous waste site (check with Co. Env. Health Division)?

Please explain all "Yes" answers:

Home is placed on site to minimize disturbing natural trees, footprint encroaches on one mature Coast Live Oak, this placement preserves majority of trees on site. Septic field requires area occupied by 2 Tasmanian Blue Gum trees in fair condition. Slope will be graded minimally to allow for footprint of building at least sloped area of site.

Signature required on reverse →

2. National Marine Fisheries Rule 4(d) Review

Yes	No	Will the project involve:
☐	■	a. Construction outside of the footprint of an existing, legal structure?
☐	■	b. Exterior construction within 100-feet of a stream?
☐	■	c. Construction, maintenance or use of a road, bridge, or trail on a stream bank or unstable hill slope?
☐	■	d. Land-use within a riparian area?
☐	■	e. Timber harvesting, mining, grazing or grading?
☐	■	f. Any work inside of a stream, riparian corridor, or shoreline?
☐	■	g. Release or capture of fish or commerce dealing with fish?

Please explain any "Yes" answers:

3. National Pollutant Discharge Elimination System (NPDES) Review

Yes	No	Will the project involve:
☐	■	a. A subdivision or Commercial / Industrial Development that will result in the addition or replacement of **10,000 sq. ft.** or more of impervious surface? If yes, Property Owner may be required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants. Please consult the Current Planning Section for necessary forms and both construction and post-construction requirements.
☐	■	b. Land disturbance of **1 acre** or more of area? If yes, Property Owner must file a Notice of Intent (NOI) to be covered under the statewide General Construction Activities Storm Water Permit (General Permit) prior to the commencement of construction activity. Proof of coverage under State permit must be demonstrated prior to the issuance of a building permit.

Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and the facts, statements and information presented are true and correct to the best of my knowledge and belief. **If any of the facts represented here change, it is my responsibility to inform the County.**

Signed: Date: July 12, 2020

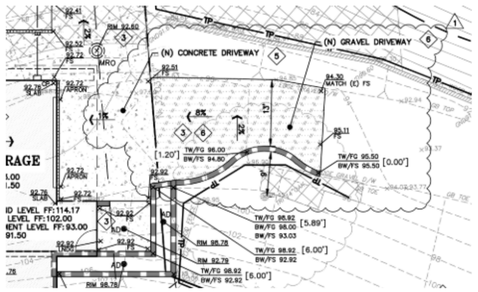
(Applicant may sign)

DATE: 12/10/2020

County of San Mateo
Planning & Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

To Whom It May Concern,

As the owner of 636 Palomar Drive Redwood City (unincorporated San Mateo County) We are aware and approve of the proposed development at 634 Palomar Drive and the work proposed to encroach onto our property. This work as we understand it will include the construction of a new retaining wall and grading of the roadway along our western property line. The retaining wall adjacent to the driveway has been revised from its original proposed location to help maintain the heath of the existing 14" Oak tree. Below is an image of the proposed work we approve of to be conducted on our property at 636 Palomar Drive.



Sincerely,

June 29, 2020

San Mateo County Planning Department
455 County Center
Redwood City, California 94063
Attn: Camille Leung -clueng@smcgov.org

Subject: **Letter of Concurrence**
Regarding Property: 634 Palomar Drive
Redwood City, California 94063
County's Permit #: Unknown

To Whom it May Concern:

We, Anusha Thalapaneni & David Jackson, hereby authorize M Designs Architects to take over the authority of information and relevant documents regarding our property at 634 Palomar Drive, Redwood City, CA in an unincorporated area of San Mateo County. They will be responsible for collecting official documents, receiving them, and signing papers related to Planning and Building Department Applications. This right is effective from June 29, 2020.

Very truly yours,

DocuSigned by: Anusha Thalapaneni — Anusha Thalapaneni — July 9, 2020

DocuSigned by: David Jackson — David Jackson — July 9, 2020

Description	Date

M DESIGNS ARCHITECTS
4131 WEST EL CAMINO REAL, SUITE 200, PALO ALTO CA 94306

www.mdesignsarchitects.com
Email: info@mdesignsarchitects.com
Phone: 650-565-9036
Fax: 949-625-7869

NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

EXHIBITS

12/12/2022

T0.2

A. <u>GENERAL NOTES</u>

1. ALL HARDWOOD FLOORING TO BE INSTALLED IN ACCORDANCE WITH THE LATEST NOFMA SPECIFICATIONS AND RECOMMENDATIONS.
2. ALL CERAMIC OR STONE TILE WORK TO BE INSTALLED IN ACCORDANCE WITH THE LATEST TILE COUNCIL OF AMERICA SPECIFICATIONS AND RECOMMENDATIONS.
3. WALL FRAMING - ALL WALLS HOUSING PLUMBING PIPES SHALL BE 2X6 STUDS MIN. @ 16" O.C. ALL EXTERIOR WALLS OVER 10-FEET IN HEIGHT TO BE 2X6 STUDS @ 16" O.C.
4. INSULATION PER TITLE 24.
5. DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS. FOR ALL DEBRIS BOXES, CONTACT RECOLOGY. USING ANOTHER HAULER MAY VIOLATE CITY CODE AND RESULT IN CODE ENFORCEMENT ACTION.
6. THIS PROJECT MUST COMPLY WITH THE CITY'S CONSTRUCTION AND DEMOLITION ORDINANCE.

B. <u>GENERAL DEMOLITION NOTES</u>

1. CONTRACTOR SHALL DEMOLISH PER CBC CHAPTER 33 AND/OR LOCAL CODE REQUIREMENTS. DEMOLISH ONLY THOSE AREAS AFFECTED BY WORK.
2. CONTRACTOR SHALL INFORM ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
3. CONTRACTOR SHALL PROVIDE PROPER SHORING OF EXISTING STRUCTURE(S) AS REQUIRED FOR CBC AND/OR LOCAL CODE PRIOR TO ROOF AND WALL REMOVAL.
4. CONTRACTOR SHALL VERIFY WITH PLAN(S) AND FIELD INSPECTS ALL WINDOWS, FLOORS AND WALLS TO BE REMOVED.
5. CONTRACTOR SHALL FIELD VERIFY EXISTING ELECTRICAL, MECHANICAL AND PLUMBING AND REMOVE AS REQUIRED.
6. ALL HAZARDOUS MATERIALS MUST BE DISPOSED OF PER LOCAL, STATE AND FEDERAL REGULATIONS.
7. CONTRACTOR SHALL COVER AND PROTECT EXISTING FLOORING, WALLS, ETC. THAT ARE TO REMAIN.
8. CONTRACTOR SHALL REUSE EXISTING WATER LINES AND SANITARY SEWER LINES UNDER EXISTING FLOOR IF AT ALL POSSIBLE.
9. CONTRACTOR SHALL PROVIDE THE ARCHITECT IN WRITING A DETAILED OUTLINE OF DEMOLITION PROCEDURES PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
10. CONTRACTOR SHALL LEGALLY DISPOSE OF DEMOLISHED MATERIAL AND EQUIPMENT OFF-SITE.
11. BIDDERS MUST VISIT THE SITE AND VERIFY CONDITIONS BEFORE SUBMITTING BIDS.
12. ALL STATIONARY NOISE-GENERATING EQUIPMENT SHALL BE LOCATED AS FAR AWAY AS POSSIBLE FROM NEIGHBORING PROPERTY LINES.
13. NO WORK SHALL COMMENCE ON THE JOB SITE PRIOR TO CONTRACTOR VERIFYING ALLOWABLE CONSTRUCTION HOURS WITH LOCAL AGENCY.
14. DUST PROOF CHUTES SHALL BE USED FOR LOADING CONSTRUCTION DEBRIS ONTO TRUCKS.
15. STOCKPILES OF DEBRIS, SOIL, SAND, OR MATERIAL THAT COULD BE BLOWN BY THE WIND SHALL BE WATERED OR COVERED.
16. SWEEP DAILY ALL PAVED ACCESS ROAD'S, PARKING AREAS AND STAGING AREA AT THE CONSTRUCTION SITE.
17. CONTRACTOR TO COMPLY WITH THE CITY'S CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING AND DIVERSION PROGRAM IF APPLICABLE.
18. CONTRACTOR SHALL VERIFY W/ OWNER, PRIOR TO DEMOLITION, IF ANY ITEMS ARE TO BE SALVAGED.

<u>CALGREEN NOTES</u>

C. <u>CGBC 4.106 - SITE DEVELOPMENT</u>

1. CGBC 4.106.2.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION - WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD APPROVED BY THE ENFORCING AGENCY.
2. CGBC 4.106.2.3 DISPLACED TOPSOIL SHALL BE STOCKPILED FOR REUSE IN A DESIGNATED AREA AND COVERED OR PROTECTED FROM EROSION.
3. CGBC 4.106.3 GRADING AND PAVING - CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. EXAMPLES OF METHODS TO MANAGE SURFACE WATER INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: 1.SWALES, 2.WATER COLLECTION AND DISPOSAL SYSTEMS, 3.FRENCH DRAINS, 4.WATER RETENTION GARDENS, 5.OTHER WATER MEASURES WHICH KEEP SURFACE WATER AWAY FROM BUILDINGS AND AID IN GROUNDWATER RECHARGE.
4. CGBC 4.106.4.1 - NEW ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES WITH ATTACHED PRIVATE GARAGES FOR EACH DWELLING UNIT, INSTALL A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1 (NOMINAL 1-INCH INSIDE DIAMETER). THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE INTO A LISTED CABINET, BOX OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF AN EV CHARGER. RACEWAYS ARE REQUIRED TO BE CONTINUOUS AT ENCLOSED, INACCESSIBLE OR CONCEALED AREAS AND SPACES. THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE.

D. <u>CGBC SECTION 4.303 - INDOOR WATER USE</u>

1. CGBC 4.303.1.1 WATER CLOSETS - THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK-TYPE TOILETS.
2. CGBC 4.303.1.2 URINALS - THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH. THE EFFECTIVE FLUSH VOLUME OF ALL OTHER URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.
3. CGBC 4.303.1.3.1 SINGLE SHOWERHEAD SHOWERHEADS - SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEAD.
4. CGBC 4.303.1.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER - WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME.
5. CGBC 4.303.1.4.1 RESIDENTIAL LAVATORY FAUCETS - THE MAXIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI.
6. CGBC 4.303.1.4.4 KITCHEN FAUCETS - THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

E. <u>CGBC SECTION 4.304 - OUTDOOR WATER USE</u>

CGBC 4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS - AFTER DECEMBER 1, 2015, NEW RESIDENTIAL DEVELOPMENTS WITH AN AGGREGATE LANDSCAPE AREA EQUAL TO OR GREATER THAN 500 SQUARE FEET SHALL COMPLY WITH ONE OF THE FOLLOWING OPTIONS: 1. A LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE OR THE CURRENT CALIFORNIA DEPARTMENT OF WATER RESOURCES' MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO), WHICHEVER IS MORE STRINGENT; OR 2. PROJECTS WITH AGGREGATE LANDSCAPE AREAS LESS THAN 2,500 SQUARE FEET MAY COMPLY WITH THE MWELO'S APPENDIX D PRESCRIPTIVE COMPLIANCE OPTION.

F. <u>CGBC 4.406 - ENHANCED DURABILITY AND REDUCED MAINTENANCE</u>

CGBC 4.406.1 RODENT PROOFING - ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.

G. <u>CGBC 4.408 - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING</u>

1. CGBC 4.408.1 CONSTRUCTION WASTE MANAGEMENT - RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH EITHER SECTION 4.408.2, 4.408.3 OR 4.408.4, OR MEET A MORE STRINGENT LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE.
2. CGBC 4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN - SUBMIT A CONSTRUCTION WASTE MANAGEMENT PLAN IN CONFORMANCE WITH ITEMS 1 THROUGH 5. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE ENFORCING AGENCY. 1. IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE. 2. SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON-SITE (SOURCE-SEPARATED) OR BULK MIXED (SINGLE STREAM). 3. IDENTIFY DIVERSION FACILITIES WHERE THE CONSTRUCTION AND DEMOLITION WASTE MATERIAL WILL BE TAKEN. 4. IDENTIFY CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED. 5. SPECIFY THAT THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE MATERIALS DIVERTED SHALL BE CALCULATED BY WEIGHT OR VOLUME, BUT NOT BY BOTH.
3. CGBC 4.408.3 WASTE MANAGEMENT COMPANY - UTILIZE A WASTE MANAGEMENT COMPANY, APPROVED BY THE ENFORCING AGENCY, WHICH CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH SECTION 4.408.1.
4. CGBC 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR] - PROJECTS THAT GENERATE A TOTAL COMBINED WEIGHT OF CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS, WHICH DO NOT EXCEED 3.4 POUNDS PER SQUARE FOOT OF THE BUILDING AREA SHALL MEET THE MINIMUM 65 PERCENT CONSTRUCTION WASTE REDUCTION REQUIREMENT IN SECTION 4.408.1.

H. <u>CGBC 4.410 - BUILDING MAINTENANCE AND OPERATION</u>

CGBC 4.410.1 OPERATION AND MAINTENANCE MANUAL - AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE ENFORCING AGENCY WHICH INCLUDES ALL OF THE FOLLOWING SHALL BE PLACED IN THE BUILDING: 1. DIRECTIONS TO THE OWNER OR OCCUPANT THAT THE MANUAL SHALL REMAIN WITH THE BUILDING THROUGHOUT THE LIFE CYCLE OF THE STRUCTURE. 2. OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE FOLLOWING: A. EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS, PHOTOVOLTAIC SYSTEMS, ELECTRIC VEHICLE CHARGERS, WATER-HEATING SYSTEMS AND OTHER MAJOR APPLIANCES AND EQUIPMENT B. ROOF AND YARD DRAINAGE, INCLUDING GUTTERS AND DOWNSPOUTS. C. SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS. D. LANDSCAPE IRRIGATION SYSTEMS. E. WATER REUSE SYSTEMS. 3. INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATIONS. 4. PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA. 5. EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF AN INTERIOR RELATIVE HUMIDITY BETWEEN 30–60 PERCENT AND WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE. 6. INFORMATION ABOUT WATER-CONSERVING LANDSCAPE AND IRRIGATION DESIGN AND CONTROLLERS WHICH CONSERVE WATER. 7. INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUTS AND THE IMPORTANCE OF DIVERTING WATER AT LEAST 5 FEET AWAY FROM THE FOUNDATION. 8. INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, INCLUDING, BUT NOT LIMITED TO, CAULKING, PAINTING, GRADING AROUND THE BUILDING, ETC. 9. INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVE PROGRAMS AVAILABLE. 10. A COPY OF ALL SPECIAL INSPECTION VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS CODE.

I. <u>CBGC 4.503 - FIREPLACES</u>

CGBC 4.503.1 GENERAL - ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. ANY INSTALLED WOOD STOVE OR PELLET STOVE SHALL COMPLY WITH U.S. EPA NEW SOURCE PERFORMANCE STANDARDS (NSPS) EMISSION LIMITS AS APPLICABLE, AND SHALL HAVE A PERMANENT LABEL INDICATING THEY ARE CERTIFIED TO MEET THE EMISSION LIMITS. WOODSTOVES, PELLET STOVES AND FIREPLACES SHALL ALSO COMPLY WITH APPLICABLE LOCAL ORDINANCES.

J. <u>CBGC 4.504 - POLLUTANT CONTROL</u>

1. CGBC 4.504.1 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION - AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY ENTER THE SYSTEM.
2. CGBC 4.504.2.1 ADHESIVES, SEALANTS AND CAULKS - ADHESIVES, SEALANTS AND CAULKS USED ON THE PROJECT SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS UNLESS MORE STRINGENT LOCAL OR REGIONAL AIR POLLUTION OR AIR QUALITY MANAGEMENT DISTRICT RULES APPLY: 1. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS, SEALANT PRIMERS, AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE OR SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLE 4.504.1 OR 4.504.2, AS APPLICABLE. SUCH PRODUCTS ALSO SHALL COMPLY WITH THE RULE 1168 PROHIBITION ON THE USE OF CERTAIN TOXIC COMPOUNDS (CHLOROFORM, ETHYLENE DICHLORIDE, METHYLENE CHLORIDE, PERCHLOROETHYLENE AND TRICHLOROETHYLENE), EXCEPT FOR AEROSOL PRODUCTS, AS SPECIFIED IN SUBSECTION 2 BELOW. 2. AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN 1 POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94507.
3. CGBC 4.504.2.2 PAINTS AND COATINGS - ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS IN TABLE 1 OF THE ARB ARCHITECTURAL SUGGESTED CONTROL MEASURE, AS SHOWN IN TABLE 4.504.3, UNLESS MORE STRINGENT LOCAL LIMITS APPLY. THE VOC CONTENT LIMIT FOR COATINGS THAT DO NOT MEET THE DEFINITIONS FOR THE SPECIALTY COATINGS CATEGORIES LISTED IN TABLE 4.504.3 SHALL BE DETERMINED BY CLASSIFYING THE COATING AS A FLAT, NONFLAT OR NONFLAT-HIGH GLOSS COATING, BASED ON ITS GLOSS, AS DEFINED IN SUBSECTIONS 4.21, 4.36, AND 4.37 OF THE 2007 CALIFORNIA AIR RESOURCES BOARD, SUGGESTED CONTROL MEASURE, AND THE CORRESPONDING FLAT, NONFLAT OR NONFLAT-HIGH GLOSS VOC LIMIT IN TABLE 4.504.3 SHALL APPLY.
4. CGBC 4.504.2.3 AEROSOL PAINTS AND COATINGS - AEROSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC IN SECTION 94522(A)(2) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS AND OZONE DEPLETING SUBSTANCES, IN SECTIONS 94522(E)(1) AND (F)(1) OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94520; AND IN AREAS UNDER THE JURISDICTION OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT ADDITIONALLY COMPLY WITH THE PERCENT VOC BY WEIGHT OF PRODUCT LIMITS OF REGULATION 8, RULE 49.
5. CGBC 4.504.2.4 VERIFICATION - VERIFICATION OF COMPLIANCE WITH THIS SECTION SHALL BE PROVIDED AT THE REQUEST OF THE ENFORCING AGENCY. DOCUMENTATION MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING: 1. MANUFACTURER'S PRODUCT SPECIFICATION. 2. FIELD VERIFICATION OF ON-SITE PRODUCT CONTAINERS.
6. CGBC 4.504.3 CARPET SYSTEMS - ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING: 1. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM. 2. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350.) 3. NSF/ANSI 140 AT THE GOLD LEVEL. 4. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE™ GOLD.
7. CGBC 4.504.4 RESILIENT FLOORING SYSTEMS - WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING: 1. PRODUCTS COMPLIANT WITH THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350), CERTIFIED AS A CHPS LOW-EMITTING MATERIAL IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE. 2. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD (FORMERLY THE GREENGUARD CHILDREN & SCHOOLS PROGRAM). 3. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM. 4. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).
8. CGBC 4.504.5 COMPOSITE WOOD PRODUCTS - HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN ARB'S AIR TOXIC CONTROL MEASURE FOR COMPOSITE WOOD (17 CCR 93120 ET SEQ.), BY OR BEFORE THE DATES SPECIFIED IN THOSE SECTIONS, AS SHOWN IN TABLE 4.504.5.

K. <u>CGBC 4.505 INTERIOR MOISTURE CONTROL</u>

1. CGBC 4.505.2 CONCRETE SLAB FOUNDATIONS - CONCRETE SLAB FOUNDATIONS REQUIRED TO HAVE A VAPOR RETARDER BY THE CALIFORNIA BUILDING CODE CHAPTER 19 OR CONCRETE SLAB-ON-GROUND FLOORS REQUIRED TO HAVE A VAPOR RETARDER BY THE CALIFORNIA RESIDENTIAL CODE, CHAPTER 5, SHALL ALSO COMPLY WITH THIS SECTION.
2. CGBC 4.505.2.1 CAPILLARY BREAK - A CAPILLARY BREAK SHALL BE INSTALLED IN COMPLIANCE WITH AT LEAST ONE OF THE FOLLOWING: 1. A 4-INCH-THICK (101.6 MM) BASE OF 1/2 INCH (12.7 MM) OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR RETARDER IN DIRECT CONTACT WITH CONCRETE AND A CONCRETE MIX DESIGN, WHICH WILL ADDRESS BLEEDING, SHRINKAGE, AND CURLING, SHALL BE USED. FOR ADDITIONAL INFORMATION, SEE AMERICAN CONCRETE INSTITUTE, ACI 302.2R-06. 2. OTHER EQUIVALENT METHODS APPROVED BY THE ENFORCING AGENCY. 3. A SLAB DESIGN SPECIFIED BY A LICENSED DESIGN PROFESSIONAL.
3. CGBC 4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS - BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19-PERCENT MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED IN COMPLIANCE WITH THE FOLLOWING: 1. MOISTURE CONTENT SHALL BE DETERMINED WITH EITHER A PROBE-TYPE OR CONTACT-TYPE MOISTURE METER. EQUIVALENT MOISTURE VERIFICATION METHODS MAY BE APPROVED BY THE ENFORCING AGENCY AND SHALL SATISFY REQUIREMENTS FOUND IN SECTION 101.8 OF THIS CODE. 2. MOISTURE READINGS SHALL BE TAKEN AT A POINT 2 FEET (610 MM) TO 4 FEET (1219 MM) FROM THE GRADE STAMPED END OF EACH PIECE TO BE VERIFIED. 3. AT LEAST THREE RANDOM MOISTURE READINGS SHALL BE PERFORMED ON WALL AND FLOOR FRAMING WITH DOCUMENTATION ACCEPTABLE TO THE ENFORCING AGENCY PROVIDED AT THE TIME OF APPROVAL TO ENCLOSE THE WALL AND FLOOR FRAMING.

L. <u>CGBC 4.506 INDOOR AIR QUALITY AND EXHAUST</u>

CGBC 4.506.1 BATHROOM EXHAUST FANS - EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING: 1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING. 2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL. A. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF ≤ 50 PERCENT TO A MAXIMUM OF 80 PERCENT. B. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT. 3. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E., BUILT-IN).

M. <u>CGBC 4.507 ENVIRONMENTAL COMFORT</u>

CGBC 4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN - HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED, DESIGNED AND HAVE THEIR EQUIPMENT SELECTED USING THE FOLLOWING METHODS: 1. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ANSI/ACCA 2 MANUAL J—2011 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS. 2. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D—2014 (RESIDENTIAL DUCT SYSTEMS), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS. 3. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S—2014 (RESIDENTIAL EQUIPMENT SELECTION) OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.

N. <u>FIRE-RESISTANT CONSTRUCTION</u>

1. R302.6 DWELLING/GARAGE AND/OR CARPORT FIRE SEPARATION - THE GARAGE AND/OR CARPORT SHALL BE SEPARATED AS REQUIRED BY TABLE R302.6. OPENINGS IN GARAGE WALLS SHALL COMPLY WITH SECTION R302.5. ATTACHMENT OF GYPSUM BOARD SHALL COMPLY WITH TABLE R702.3.5.
2. R302.11 FIREBLOCKING - IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE PROVIDED TO CUT OFF BOTH VERTICAL AND HORIZONTAL CONCEALED DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.

O. <u>FENESTRATIONS AND GLAZING</u>

1. CRC 308.1 IDENTIFICATION - EXCEPT AS INDICATED IN SECTION R308.1.1 EACH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATIONS AS DEFINED IN SECTION R308.4 SHALL BE PROVIDED WITH A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, DESIGNATING THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD WITH WHICH IT COMPLIES, WHICH IS VISIBLE IN THE FINAL INSTALLATION. THE DESIGNATION SHALL BE ACID ETCHED, SANDBLASTED, CERAMIC-FIRED, LASER ETCHED, EMBOSSED, OR BE OF A TYPE THAT ONCE APPLIED CANNOT BE REMOVED WITHOUT BEING DESTROYED. A LABEL SHALL BE PERMITTED IN LIEU OF THE MANUFACTURER'S DESIGNATION.
2. CRC 310.2.1 MINIMUM OPENING AREA - EMERGENCY AND ESCAPE RESCUE OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET (0.530 M2). THE NET CLEAR OPENING DIMENSIONS REQUIRED BY THIS SECTION SHALL BE OBTAINED BY THE NORMAL OPERATION OF THE EMERGENCY ESCAPE AND RESCUE OPENING FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL BE NOT LESS THAN 24 INCHES (610 MM) AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20 INCHES (508 MM).
3. CRC 310.2.2 WINDOW SILL HEIGHT - WHERE A WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44 INCHES (1118 MM) MEASURED FROM THE FLOOR; WHERE THE SILL HEIGHT IS BELOW GRADE, IT SHALL BE PROVIDED WITH A WINDOW WELL IN ACCORDANCE WITH SECTION R310.2.3.
4. ALL EXTERIOR WINDOWS SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440.
5. ALL EXTERIOR SLIDING DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440. EXTERIOR SIDE-HINGED DOORS SHALL BE TESTED AND LABELED AS CONFORMING TO AAMA/WDMA/CSA 101/I.S.2/A440 OR COMPLY WITH CRC R609.5

P. <u>VENTILATION</u>

1. CRC 408.1 VENTILATION - THE UNDER-FLOOR SPACE BETWEEN THE BOTTOM OF THE FLOOR JOISTS AND THE EARTH UNDER ANY BUILDING (EXCEPT SPACE OCCUPIED BY A BASEMENT) SHALL HAVE VENTILATION OPENINGS THROUGH FOUNDATION WALLS OR EXTERIOR WALLS. THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 150 SQUARE FEET (14 M2) OF UNDER-FLOOR SPACE AREA, UNLESS THE GROUND SURFACE IS COVERED BY A CLASS 1 VAPOR RETARDER MATERIAL. WHERE A CLASS 1 VAPOR RETARDER MATERIAL IS USED, THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 1,500 SQUARE FEET (140 M2) OF UNDER-FLOOR SPACE AREA. ONE SUCH VENTILATING OPENING SHALL BE WITHIN 3 FEET (914 MM) OF EACH CORNER OF THE BUILDING.
2. CRC 806.2 MINIMUM VENT AREA - THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE.
3. BATHROOM EXHAUST FANS: ENERGY STAR COMPLIANT. PROVIDE 50CFM MIN INTERMITTENT AIRFLOW OR 20CFM MIN CONTINUOUS AIRFLOW. TIME SWITCH TO PROVIDE 90CFM MIN OR 5 CHANGES OF AIR PER HOUR. TERMINATE VENT THRU ROOF 3'-0"MIN FROM ANY OPERABLE FENESTRATION.
4. BATHROOM EXHAUST FAN AND WHOLE HOUSE INDOOR AIR QUALITY VENTILATION FAN. FAN SHALL BE EQUIPPED W/ 60CFM ALWAYS ON OR TIME CLOCK TO PROVIDE 1,440CF DAILY. TERMINATE VENT THRU ROOF 3'-0"MIN FROM ANY OPERABLE FENESTRATION.
5. RANGE HOOD EXHAUST: IN-WALL APPROVED DUAL WALL 26GA METAL: PROVIDE 100CFM MIN INTERMITTENT AIRFLOW OR 5 AIR CHANGES PER HOUR. TERMINATE THRU ROOF 3'-0" MIN FROM ANY OPERABLE FENESTRATION.
6. HVAC SYSTEM: DIRECT VENT, HIGH EFFICIENCY, VERTICAL DRAW. PROVIDE GAS SHUT OFF VALVE IN ACCESSIBLE LOCATION. PROVIDE FIBERGLASS DRAIN PAN, CONNECT TO SANITARY SEWER. TERMINATE VENT MIN 3'-0" FROM PROPERTY LINE OR OPERABLE FENESTRATION. FILTRATION: MERV 6 OR BETTER. PROVIDE MAKE-UP OUTSIDE AIR PER CEC 150(O) AND WHOLE HOUSE VENTILATION FAN. HVAC SHALL COMPLY W/ CGBS 4.507.2 HVAC SYSTEM INSTALLERS WILL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS INCLUDING DUCTS AND EQUIPMENT BY A RECOGNIZED TRAINING/CERTIFICATION PROGRAM.
7. CMC 502.2.1 ENVIRONMENTAL AIR DUCTS - ENVIRONMENTAL AIR DUCT EXHAUST SHALL TERMINATE NOT LESS THAN 3 FEET (914 MM) FROM A PROPERTY LINE, 10 FEET (3048 MM) FROM A FORCED AIR INLET, AND 3 FEET (914 MM) FROM OPENINGS INTO THE BUILDING. ENVIRONMENTAL EXHAUST DUCTS SHALL NOT DISCHARGE ONTO A PUBLIC WALKWAY.

Description	Date

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INTERIOR DESIGN PACKAGE

GENERAL NOTES

12/12/2022

T0.3

Q. ACCESS

1. CRC 408.4 ACCESS - ACCESS SHALL BE PROVIDED TO ALL UNDER-FLOOR SPACES. ACCESS OPENINGS THROUGH THE FLOOR SHALL BE A MINIMUM OF 18 INCHES BY 24 INCHES (457 MM BY 610 MM). OPENINGS THROUGH A PERIMETER WALL SHALL BE NOT LESS THAN 16 INCHES BY 24 INCHES (407 MM BY 610 MM). WHERE ANY PORTION OF THE THROUGH-WALL ACCESS IS BELOW GRADE, AN AREAWAY NOT LESS THAN 16 INCHES BY 24 INCHES (407 MM BY 610 MM) SHALL BE PROVIDED.
2. CRC 807.1 ATTIC ACCESS - BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES (762 MM) OR GREATER OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET (2.8 M2). THE VERTICAL HEIGHT SHALL BE MEASURED FROM THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS.THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES (559 MM BY 762 MM) AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHERE LOCATED IN A WALL, THE OPENING SHALL BE NOT LESS THAN 22 INCHES WIDE BY 30 INCHES HIGH (559 MM WIDE BY 762 MM HIGH). WHERE THE ACCESS IS LOCATED IN A CEILING, MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30 INCHES (762 MM) AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF CEILING FRAMING MEMBERS. SEE THE CALIFORNIA MECHANICAL CODE FOR ACCESS REQUIREMENTS WHERE MECHANICAL EQUIPMENT IS LOCATED IN ATTICS.

R. KITCHEN AND BATHROOM

1. DISHWASHER: PROVIDE DIRECT CONNECTION TO WASTE WATER LINE OR GARBAGE DISPOSAL OR AN APPROVED AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHER MACHINE PER CPC 807.3.
2. GAS FIRED COOKTOP: PROVIDE GAS SHUT OFF VALVE IN APPROVED ACCESSIBLE LOCATION.
3. WATER CLOSETS: 30"W X 24"D CLEAR SPACE FRONT OF TOILET.
4. R307.2 - BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6' ABOVE THE FLOOR.
5. R308.4.5 - GLAZING IN WALLS, ENCLOSURES OF FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION. THIS SHALL APPLY TO SINGLE GLAZING AND EACH PANE IN MULTIPLE GLAZING.

S. STAIR NOTES

1. R311.7.1 WIDTH - STAIRWAYS SHALL BE NOT LESS THAN 36 INCHES (914 MM) IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4 1/2 INCHES (114 MM) ON EITHER SIDE OF THE STAIRWAY AND THE CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL BE NOT LESS THAN 31 1/2 INCHES (787 MM) WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 27 INCHES (698 MM) WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.
2. R311.7.2 HEADROOM - THE HEADROOM IN STAIRWAYS SHALL BE NOT LESS THAN 6 FEET 8 INCHES (2032 MM) MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM ON THAT PORTION OF THE STAIRWAY.
3. R311.7.5.1 RISERS - THE RISER HEIGHT SHALL BE NOT MORE THAN 7 3/4 INCHES (196 MM). THE RISER SHALL BE MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH (9.5 MM). RISERS SHALL BE VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE NOSING OF THE TREAD ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES (0.51 RAD) FROM THE VERTICAL. OPEN RISERS ARE PERMITTED PROVIDED THAT THE OPENINGS LOCATED MORE THAN 30 INCHES (762 MM), AS MEASURED VERTICALLY, TO THE FLOOR OR GRADE BELOW DO NOT PERMIT THE PASSAGE OF A 4-INCH-DIAMETER (102 MM) SPHERE.
4. R311.7.5.2 TREADS - THE TREAD DEPTH SHALL BE NOT LESS THAN 10 INCHES (254 MM). THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT A RIGHT ANGLE TO THE TREAD'S LEADING EDGE. THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH (9.5 MM).
5. R311.7.8.1 HEIGHT - HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34 INCHES (864 MM) AND NOT MORE THAN 38 INCHES (965 MM).
6. R312.1.2 HEIGHT - REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 42 INCHES (1067 MM) IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS.

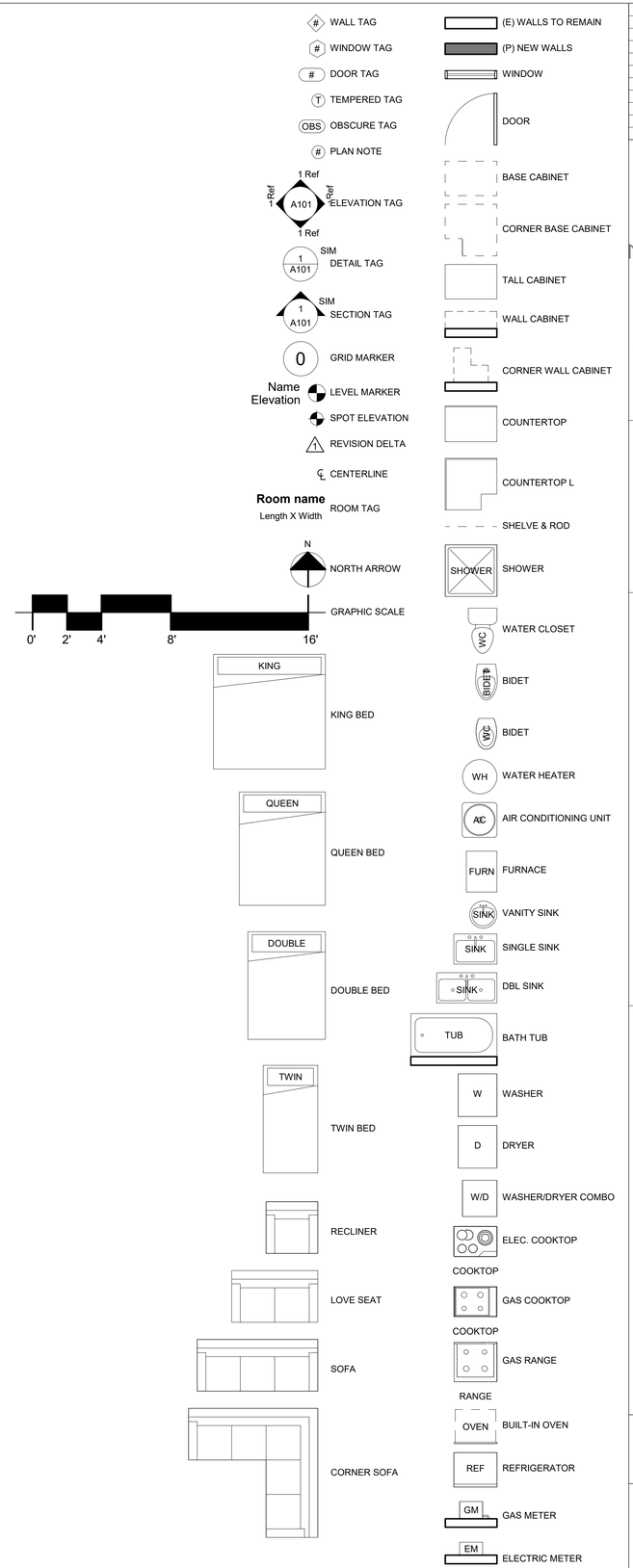
T. ADDRESS

R319.1 ADDRESS IDENTIFICATION - BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT. EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES (102 MM) IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN 0.5 INCH (12.7 MM). WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE. WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS IDENTIFICATION SHALL BE MAINTAINED.

U. CITY PRACTICES

1. ALL ENGINEERING INSPECTIONS REQUIRE 24-HOUR NOTICE
2. WORK HOURS: NO WORK SHALL COMMENCE ON THE JOB SITE PRIOR TO 7:00 A.M. NOR CONTINUE LATER THAN 6:00 P.M., MONDAY THROUGH FRIDAY. EXCEPTION WITH WRITTEN PERMISSION FROM THE CITY
3. ROADWAYS SHALL BE MAINTAINED CLEAR OF CONSTRICTION MATERIALS AND DEBRIS AT ALL TIMES. DAILY ROAD CLEAN UP WILL BE ENFORCED.
4. TRENCHES OR HOLES WITHIN THE PUBLIC RIGHT OF WAY MUST BE BACK FILLED BEFORE LEAVING EACH NIGHT UNLESS WRITTEN PERMISSION IS PROVIDED BY THE CITY ENGINEER, WITCH MUST BE REQUESTED 24 HOURS IN ADVANCE.
5. ALL RECORDED SURVEY POINTS, WHETHER WITHIN PRIVATE PROPERTY OR PUBLIC RIGHT OF WAY SHALL BE PROTECTED AND PRESERVED. IF SURVEY POINTS ARE ALTERED REMOVED OR DESTROYED, THE APPLICANT SHALL BE RESPONSIBLE FOR OBTAINING THE SERVICES OF A LICENSED SURVEYOR OR CIVIL ENGINEER TO RESTORE OR REPLACE THE THE SURVEY POINTS PRIOR AND RECORD THE REQUIRED MAP PRIOR TO COMPLETION OF THE BUILDING PERMIT.
6. AN ENCROACHMENT PERMIT WILL BE REQUIRED FOR ANY WORK WITHIN THE CITY RIGHT OF WAY
7. AN ENCROACHMENT BOND (OR CASH OR CERTIFICATE OF DEPOSIT) WILL BE REQUIRED FOR ANY WORK WITHIN THE CITY OF RIGHT OF WAY
8. ALL IMPROVEMENTS IN THE CITY RIGHT OF WAY OR PUBLIC EASEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF SPECIFICATIONS AND WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE THE CITY.
9. EXISTING SIDEWALK, CURB, GUTTER OR STREET ADJACENT TO PROPERTY FRONTAGE THAT IS DAMAGED OR DISPLACED SHALL BE REPAIRED OR REPLACED EVEN IF THE DAMAGE OR DISPLACEMENT OCCURRED PRIOR TO ANY WORK PERFORMED FOR THIS PROJECT.
10. ANY DAMAGE TO IMPROVEMENTS WITHIN CITY RIGHT OF WAY OR TO ANY PRIVATE PROPERTY, WHETHER ADJACENT TO SUBJECT PROPERTY OR NOT, THAT IS DETERMINED BY THE CITY ENGINEER TO HAVE RESULTED FROM CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT, SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY ENGINEER.
11. THERE SHALL SHALL BE NO STRUCTURAL ENCROACHMENT IN THE PUBLIC RIGHT OF WAY.
12. TRENCHES OR HOLES IN THE STREET OR SIDEWALK AREAS MUST HAVE A 6" SHOULDER ON ALL SIDES (2 6" TEE-CUT) AT LEAST 16" BELOW THE FINISHED SURFACE. FROM THAT LEVEL UP TO THE UNDERSIDE

&	AND	FPRF.	FIREPROOF	PNL.	PANEL
∠	ANGLE	FRM.	FRAMING	PR.	PAIR
@	AT	FT.	FOOR OF FEET	PT.	POINT
℄	CENTERLINE	FTG.	FOOTING	PTD.	PAINTED
*	PHASABLE @ (E) BLDG	FURR.	FURRING	PTN.	PARTITION
#	POUND OF NUMBER	FUT.	FUTURE		
℗	PROPERTY LINE	G.C.	GENERAL CONTRACTOR	Q.T.	QUARRY TILE
A.B.	ANCHOR BOLT	G.F.R.C.	GLASS FIBER REIN. CONC.		
A.F.F	ABOVE FINISHED FLOOR	G.F.R.G.	GLASS FIBER REIN. GYP.	R	RISER
A.P.L.	ASSUMED PROPERTY LINE	G.I.	GALVANIZED IRON	R.D.	ROOF DRAIN
A/C	AIR CONDITIONING	G.L.B.	GLUE-LAMINATED BEAM	R.H.	ROBE HOOK
AC.	ACOUSTICAL	GA.	GAUGE	R.O.	ROUGH OPENING
ADD'L	ADDITIONAL	G.B.	GRADE BEAM	R.T.	RESILENT TILE
ADDN.	ADDITION	GALV.	GALVANIZED	R.W.L.	RAIN WATER LEADER
ADJ.	ADJUSTABLE	GEN.	GENERAL	RAD.	RADIUS
AGG.	AGGREGATE	GL.	GLASS	RD.	ROUND
AL.	ALUMINUM	GND.	GROUND	REF.	REFERENCE
ATL.	ALTERNATE	GR.	GRADE	REFG.	REFRIGERATOR
APPROX.	APPROXIMATE	GYP.	GYPSUM	REG.	REGISTER
ARCH.	ARCHITECTURAL	GYP. BD.	GYPSUM BOARD	REINF.	REINFORCEMENT
B.M.	BENCH MARK	H.A.	HANDICAP ACCESSIBLE	REQ'D	REQUIRED
B.O.B.	BOTTOM OF BEAM	H.B.	HOSE BIBB	RESIL.	RESILIENT
BD.	BOARD	H.C.	HOLLOW CORE	REV.	REVISION
BITUM.	BITUMINOUS	H.D.	HOLD DOWN	RFG.	ROOFING
BLDG.	BUILDING	H.S.B.	HIGH-STRENGTH BOLT	RGH.	ROUGH
BLKG.	BLOCKING	H.M.	HOLLOW METAL	RM.	ROOM
BM.	BEAM	H.W.	HOT WATER	RWD.	REDWOOD
BOT.	BOTTOM	HD.	HEAD		
BTWN.	BETWEEN	HDR.	HEADER	S.A.D.	SEE ARCH. DRAWINGS
C.B.	CATCH BASIN	HDW.	HARDWARE	S.C.	SOLID CORE
C.C.T.	CUBICLE CURTAIN TRACK	HDWD.	HARDWOOD	S.C.D.	SEAT COVER DISPENSER
C.D.U.	COMB. DISPENSING UNIT	HK.	HOOK	S.D.	SOAP DISPENSER
C.I.	CAST IRON	HORIZ.	HORIZONTAL	S.J.	SAWCUT JOIST
C.J.	CONTROL JOINT	HR.	HOUR	S.M.D.	SEE MECH. DRAWINGS
C.L.P	CENTERLINE OF PIER	HT.	HEIGHT	S.M.S.	SHEET METAL SCREW
C.M.U.	CONCRETE MASONRY UNIT	HTR.	HEATER	S.O.G.	SLAB ON GRADE
C.O.	CLEAN OUT	I.D.	INSIDE DIAMETER	S.S.	STAINLESS STEEL
C.T.	CERAMIC TILE	I.F.	INSIDE FACE	S-S	SERVICE SINK
CAB.	CABINET	I.J.	ISOLATION JOINT	S.W.	SHEAR WALL
CEM.	CEMENT	IN.	INCH	SCHED.	SCHEDULE
CER.	CERAMIC	INSUL.	INSULATION	SCR.	SCREW
CLG.	CEILING	INT.	INTERIOR	SDG.	SIDING
CLR.	CLEAR	INV.	INVERT	SECT.	SECTION
COL.	COLUMN	INT.	INTRAVENOUS TRACK	SEL.	SELECT
COMB.	COMBINATION	JAN.	JANITOR	SEL. STR.	SELECT STRUCTURAL
CONC.	CONCRETE	JST.	JOIST	SH.	SHELF
CONN.	CONNECTION	JT.	JOINT	SHT.	SHEET
CONST.	CONSTRUCTION	KIT.	KITCHEN	SHWR.	SHOWER
CONT.	CONTINUOUS	L.P.	LAMINATED PLASTIC	SIM.	SIMILAR
CONTR.	CONTRACTOR	LAM.	LAMINATE	SLDG.	SLIDING
CORR.	CORRIDOR	LAV.	LAVATORY	SM.	SMOOTH
CTR.	CENTER	LB.	POUND	SPEC.	SPECIFICATION
CTSK.	COUNTERSUNK	LDGR.	LEDGER	SPL.	SPLASH
D.B.A.	DEFORMED BAR ANCHOR	LGTH.	LENGTH	SQ.	SQUARE
D.D.	DECK DRAIN	LT.	LIGHT	STD.	STANDARD
D.F.	DOUGLAS FIR	M	MIRROR	STGR.	STAGGER
D.O.	DO OVER	M.B.	MACHINE BOLT	STIFF.	STIRRUP
D.P.	DAMP PROOFING	M.B.H.	MOP AND BROOM HOLDER	STL.	STEEL
DRK. FTN.	DRINKING FOUNTAIN	M.C.	MEDICINE CABINET	STOR.	STORAGE
D.S.	DOWNSPOUT	M.E.	MATCH EXISTING	STRUCT.	STRUCTURAL
DB.	DECIBEL	M.G.P.	MEDICAL GAS PANEL	SUSP.	SUSPENDED
DBL.	DOUBLE	M.H.	MANHOLE	SW. BD.	SWITCH BOARD
DEPT.	DEPARTMENT	M.K.	MARKER BOARD	SYM.	SYMMETRICAL
DET.	DETAIL	M.O.	MASONRY OPENING		
DIA.	DIAMETER	MAT.	MATERIAL	T	TREAD
DIAG.	DIAGONAL	MAX.	MAXIMUM	T&B	TOP AND BOTTOM
DIM.	DIMENSION	MECH.	MECHANICAL	T&G	TONGUE AND GROOVE
DISP.	DISPENSER	MEMB.	MEMBRANE	T.B.	TOWEL BAR
DN.	DOWN	MEZZ.	MEZZANINE	T.D.	TRENCH DRAIN
DR.	DOOR	MFR.	MANUFACTURER	T.O.	TOP OF
DWG.	DRAWING	MIN.	MINIMUM	T.O.C.	TOP OF CURB/CONC.
(E)	EXISTING	MISC.	MISCELLANEOUS	T.O.F.	TOP OF FOOTING
E.F.	EACH FACE	MLDG.	MOULDING	T.O.P.	TOP OF PLATE
E.I.F.S.	EXT. INSUL. & FIN. SYSTEM	MTD.	MOUNTED	T.O.S.	TOP OF STEEL
E.J.	EXPANSION JOINT	MTL.	METAL	T.O.W.	TOP OF WALL
E.N.	EDGE NAIL	MUL.	MULLION	T.P.	TOP OF PAVEMENT
E.O.R.	ENGINEER OF RECORD	(N)	NEW	T.P.D.	TOILET PEPER DISPENSER
E.W.	EACH WAY	N.F.	NEAR FACE	TEL.	TELEPHONE
E.W.C.	ELECTRIC WATER COOLER	N.G.	NATURAL GRADE	TER.	TERRAZZO
EA.	EACH	N.I.C.	NOT IN CONTRACT	THK.	THICK
EL.	ELEVATION	N.T.S.	NOT TO SCALE	TK. BD.	TACKBOARD
ELEC.	ELECTRICAL	NO.	NUMBER	TV.	TELEVISION
ELEV.	ELEVATOR	NOM.	NOMINAL	TYP.	TYPICAL
EMERG.	EMERGENCY	O.A.	OVERALL		
ENCL.	ENCLOSURE	O.C.	ON CENTER	V.C.T.	VINYL COMPOSITION TILE
EQ.	EQUAL	O.D.	OUTSIDE DIAMETER	V.C.P.	VITREOUS CLAY PIPE
EQPT.	EQUIPMENT	O.F.	OUTSIDE FACE	V.D.U.	VISUAL DISPLAY UNIT
EXH.	EXHAUST	O.F.C.I.	OWNER FURNISHED, CONTR. INSTALLED	V.G.	VERTICAL GRAIN
EXP.	EXPANSION			V.T.	VINYL TILE
EXT.	EXTERIOR	O.F.D.	OVERFLOW DRAIN	V.T.R.	VENT THROUGH ROOF
F.A.	FIRE ALARM	O.F.S.	OVERFLOW SCUPPER	VERT.	VERTICAL
F.B.	FLAT BAR	O.H.	OPPOSITE HAND	VEST.	VESTIBULE
F.C.O.	FLOOR CLEAN OUT	O.L.	OVERALL LENGTH	V.I.F.	VERIFY IN FIELD
F.D.	FLOOR DRAIN	O.S.B.	ORIENTED STRAND BOARD		
F.E.	FIRE EXTINGUISHER	O/	OVER	W/	WITH
F.E.C.	FIRE EXTINGUISHER CAB.	OBS.	OBSCURE	W/O	WITHOUT
F.F.	FAR FACE	OPP.	OPPOSITE	W.C.	WATER CLOSET
F.G.	FINSHED GRADE	OPNG.	OPENING	W.F.	WIDE FLANGE
F.H.C.	FIRE HOUSE BABINET	P.A.D.	POWER ACTUATED DEVICE	W.H.	WATER HEATER
F.H.S.	FLAT HEAD SCREW	P.C.	PRECAST CONCRETE	W.H.S.	WELDED HEAD STUDS
F.L.	FLOW LINE	P.I.P.	POURED-IN-PLACE	W.P.	WATERPROOF
F.N.	FIELD NAIL	P.J.	TILT-UP PANEL JOIST	W.S.P.	WOOD STRUCT. PANEL
F.O.C.	FACE OF CONCRETE	P.L.	PROPERTY LINE	W.R.	WASTE RECEPTACLE
F.O.F.	FACE OF FINISH	P.O.C.	POINT OF CONNECTION	W.W.F.	WELDED WIRE MESH
F.O.M.	FACE OF MASONRY	P.S.F.	POUNDS PER SQ. FOOT	WD.	WOOD
F.O.S.	FACE OF STUD	P.S.I.	POUNDS PER SQ. INCH	WK. PT.	WORK POINT
F.R.	FIRE RETARDANT	P.T.	PRESSURE TREATED	WT.	WEIGHT
F.S.	FLR. SINK/FOOD SERVICE	P.T.D.	PAPER TOWEL DISPENSER		
F.S.E.C.	FOOD SERVICE EQUIPMENT CONTR.	P.W.	PLATE WASHER		
		PEN.	PENETRATION(S)		
F.S.S.	FOLDING SHOWER SEAT	PERP.	PERPENDICULAR		
FDN.	FOUNDATION	PG.	PAGE		
FIN.	FINISH	PLAM.	PLASTIC LAMINATE		
FIXT.	FIXTURE	PL.	PLATE		
FL.	FLOOR	PLAST.	PLASTER		
FLUOR.	FLUORESCENT	PLBG.	PLUMBING		
		PLYWD.	PLYWOOD		



Description	Date

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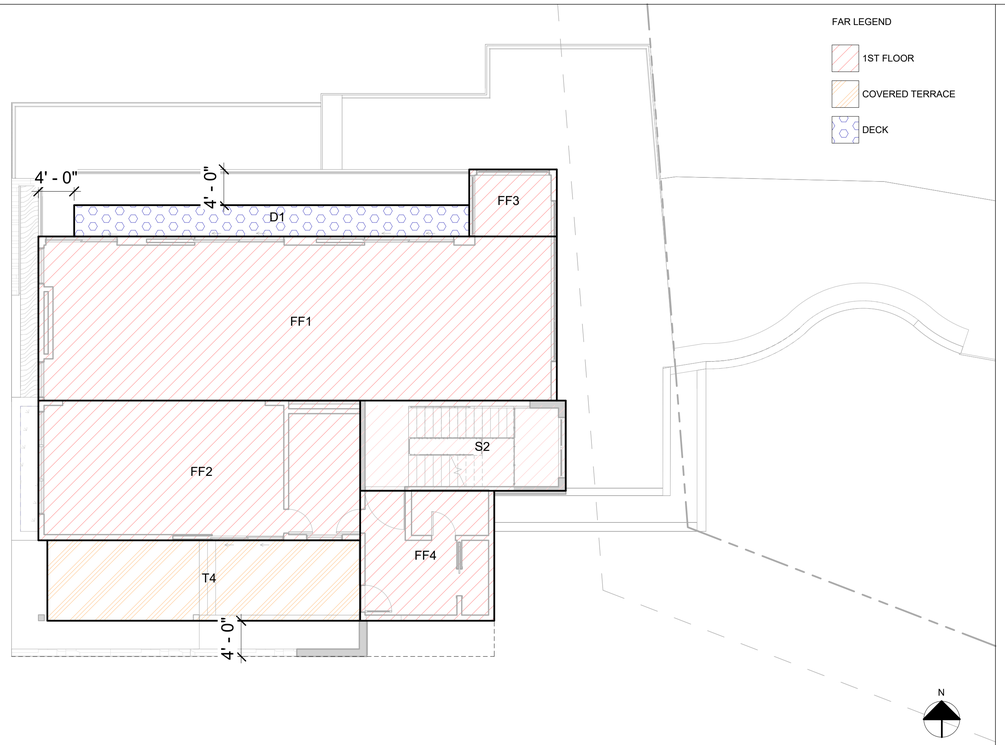
NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

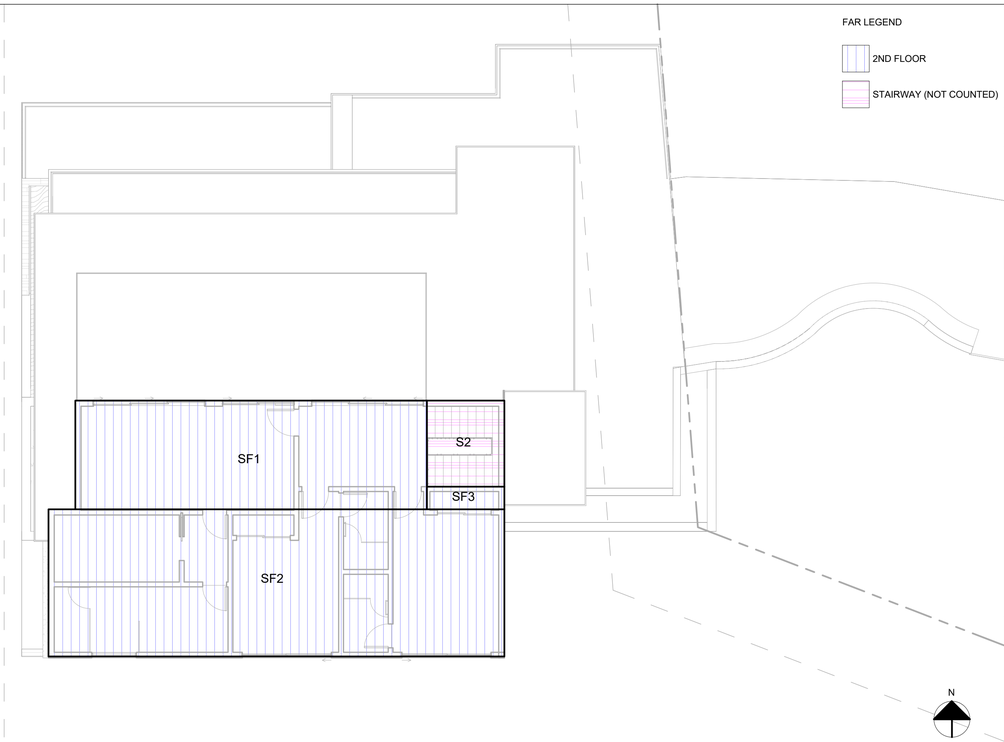
ABBREVIATIONS AND GRAPHIC SYMBOLS

12/12/2022

T0.4



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



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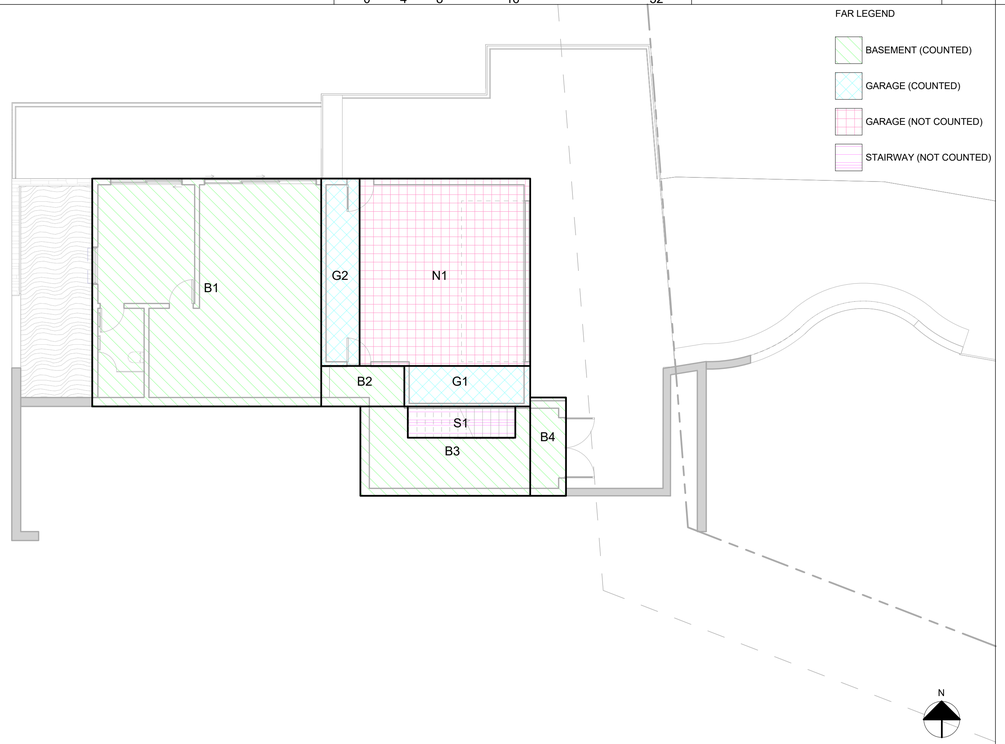

SCALE: 1/8" = 1'-0" 3

(P) FLOOR AREA RATIO

NO.	WIDTH	LENGTH	AREA
BASEMENT (COUNTED)			
B1	25' - 7"	25' - 6"	653 SF
B2	9' - 4"	4' - 6"	42 SF
B3	27' - 0"	5' - 6"	148 SF
B4	11' - 0"	4' - 0"	44 SF
			887 SF
GARAGE (COUNTED)			
G1	14' - 1"	4' - 6"	64 SF
G2	21' - 0"	4' - 4"	90 SF
			154 SF
BASE FLR			1041 SF
1ST FLOOR			
FF1	58' - 0"	18' - 4"	1065 SF
FF2	36' - 0"	15' - 8"	563 SF
FF3	9' - 10"	7' - 6"	74 SF
FF4	15' - 0"	14' - 7"	218 SF
S2	26' - 2"	3' - 11"	102 SF
			2022 SF
COVERED TERRACE			
T4	35' - 0"	9' - 0"	315 SF
			315 SF
DECK			
D1	44' - 2"	3' - 6"	155 SF
			155 SF
1ST FLR			2491 SF
2ND FLOOR			
SF1	39' - 4"	12' - 2"	479 SF
SF2	51' - 0"	16' - 6"	840 SF
SF3	8' - 8"	2' - 6"	22 SF
			1340 SF
2ND FLR			1340 SF
TOTAL			4873 SF
ALLOWED			5036.73 SF

(P) FLOOR AREA RATIO (NOT COUNTED)

NO.	WIDTH	LENGTH	AREA
GARAGE (NOT COUNTED)			
N1	21' - 0"	19' - 1"	400 SF
			400 SF
STAIRWAY (NOT COUNTED)			
S1	12' - 0"	3' - 6"	42 SF
			42 SF
BASE FLR			442 SF
STAIRWAY (NOT COUNTED)			
S2	9' - 8"	8' - 8"	84 SF
			84 SF
2ND FLR			84 SF
TOTAL			526 SF

Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021

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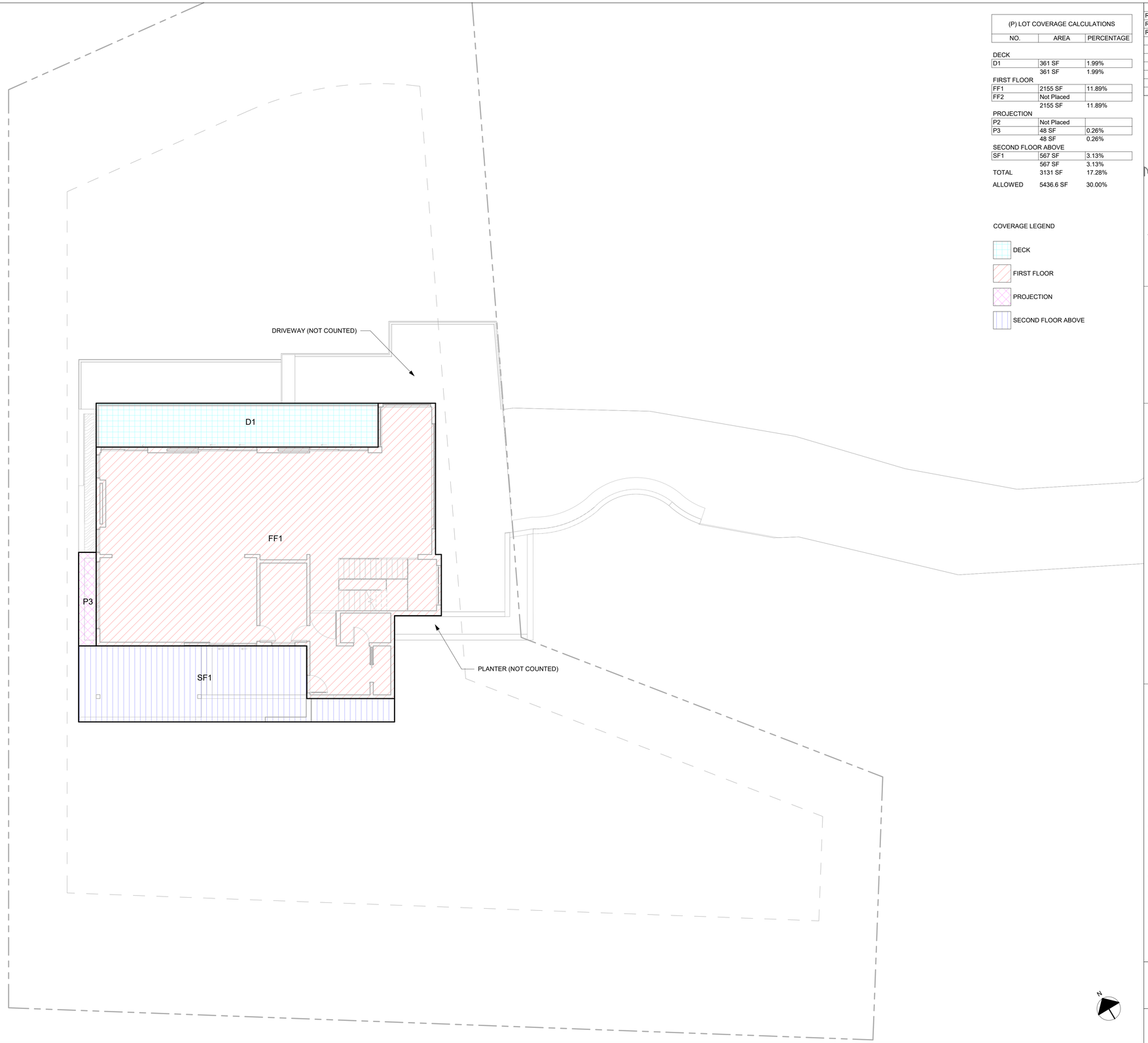
INTERIOR DESIGN PACKAGE

(P) FLOOR AREA DIAGRAMS

12/12/2022

T1.2



(P) LOT COVERAGE CALCULATIONS

NO.	AREA	PERCENTAGE
DECK		
D1	361 SF	1.99%
	361 SF	1.99%
FIRST FLOOR		
FF1	2155 SF	11.89%
FF2	Not Placed	
	2155 SF	11.89%
PROJECTION		
P2	Not Placed	
P3	48 SF	0.26%
	48 SF	0.26%
SECOND FLOOR ABOVE		
SF1	567 SF	3.13%
	567 SF	3.13%
TOTAL	3131 SF	17.28%
ALLOWED	5436.6 SF	30.00%

COVERAGE LEGEND

- DECK
- FIRST FLOOR
- PROJECTION
- SECOND FLOOR ABOVE

Description	Date
REVISION 1	12/18/2020
REVISION 2	04/19/2021
REVISION 3	12/20/2021

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INTERIOR DESIGN PACKAGE

(P) LOT COVERAGE CALCULATIONS

12/12/2022

T1.3

(P) LOT COVERAGE CALCULATIONS

0' 4' 8' 16' 32'

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

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M-Design Architecture
4131 W. El Camino Real Suite 200
Palo Alto, CA 94306

RE: 634 Palomar Drive
Redwood City, CA 94062

Date: 12/12/20

ARBORIST REPORT

Assignment

Arborist Report and Tree Protection Plan

- Review pre-existing relevant work product, as provided: site survey, schematic drawings, grading plans, landscape plans, utilities plans, etc.
- Visit the project site to evaluate trees and develop the scope for the report.
- Provide an evaluation of soil physical, chemical and drainage properties to typify the site at large. An existing Geotechnical report, site observations, testing and/or research of soil survey data may be utilized.
- Inspect adjacent properties for both overhanging tree canopies and sensitivity of adjacent tree root structure to construction impacts. Provide recommendations, as necessary.
- From a site plan (to be provided by others), label each tree to match the Arborist Report and Tree Protection Plan.
- Provide a tree survey of all regulated trees on and adjacent to the project site. Provide data interpretation criteria.
- Identify potential construction impacts to trees and provide recommendations for modifications and/or mitigation to lessen these impacts.
- Develop tree recommendations for site utilization planning for staging and equipment access.
- Develop tree maintenance recommendations.

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Background

The property at **634 Palomar Drive, Redwood City** currently has 12 trees on the property, and 7 trees near the driveway approach that crosses the neighbor's property, for a total of 19 trees affected. The new construction will impact various trees due to paving the driveway, the footprint for a new house, geotechnical stabilization of a relatively recent landslide and the installation of a septic system.

Lea & Braze Engineering has produced designs that show the landslide and septic system construction needs in detail, and the placement of the new home site and various retaining walls. Their utility plan sheet C-3.0 was used as the basis for the Site Plan with Additions that was created by us and is part of this report.

Tree Assessment

A total of 19 trees were found on this property and along the driveway approach. Tree numbers assigned to each tree below correspond to those used on the Site Plan with Additions. The data for tree identification, size and condition are listed below:

Tree No.	*Genus species*	Common Name	Diameter	Height	Spread	Condition
1	*Quercus agrifolia*	Coast live oak	5.5"	20'	10'	Fair
2	*Quercus agrifolia*	Coast live oak	13.0"	20'	30'	Good
3	*Quercus agrifolia*	Coast live oak	9.0"	20'	30'	Fair
4	*Quercus agrifolia*	Coast live oak	22.5"	30'	40'	Good
5	*Quercus agrifolia*	Coast live oak	16.0"	30'	40'	Good
6	*Quercus agrifolia*	Coast live oak	13.0"	20'	30'	Fair
7	*Quercus agrifolia*	Coast live oak	14.5",16.7",15.5"	25'	40'	Good
8	*Aesculus californica*	California buckeye	6.0"	12'	16'	Good
9	*Quercus agrifolia*	Coast live oak	11.5"	25'	25'	Good
10	*Quercus agrifolia*	Coast live oak	11.7"	30'	25'	Good
11	*Quercus agrifolia*	Coast live oak	7.3"	25'	15'	Good
12	*Quercus agrifolia*	Coast live oak	18.6"	30'	40'	Good
13	*Umbellularia californica*	California bay	4.8"	12'	12'	Good
14	*Quercus agrifolia*	Coast live oak	21.1",17.5"	40'	60'	Good
15	*Aesculus californica*	California buckeye	10.0",6.4"	20'	30'	Good
16	*Aesculus californica*	California buckeye	10" equivalent	12'	20'	Poor
17	*Quercus agrifolia*	Coast live oak	11.1",7.8"	12'	20'	Poor
18	*Eucalyptus globulus*	Tasmanian blue gum	25.7",17.0"	50'	50'	Fair
19	*Eucalyptus globulus*	Tasmanian blue gum	12.0",13.5",19.5", 14.0"	50'	50'	Fair

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Table 1.0 – All Trees

Project Arborists

The *Project Arborist* referred to in this report is identified here as a Consulting Arborist from Tree Management Experts, and will be either Roy Leggitt or Aaron Wang. Roy Leggitt has more than 30 years of experience after obtaining a BS in Plant Science – Ornamental Horticulture from CSU-Fresno, is a Certified Arborist and is Tree Risk Assessment Qualified (TRAQ). Aaron Wang has more than 8 years of experience after obtaining a BS in Forestry and Natural Resources from UC-Berkeley, is a Certified Arborist and is Tree Risk Assessment Qualified.

Trees to be Removed

A total of 8 trees must be removed due to poor health or structure, for purposes of construction, or both poor condition and construction. California bay carries sudden oak death, and this small tree should be removed to protect the health of the nearby coast live oaks. See page 10.

Tree No.	*Genus species*	Common Name	Diameter	Removal Reason
8	*Aesculus californica*	California buckeye	6.0"	Within landslide repair
13	*Umbellularia californica*	California bay	4.8"	Sudden oak death carrier
14	*Quercus agrifolia*	Coast live oak	21.1",17.5"	Within footprint of house
15	*Aesculus californica*	California buckeye	10.0",6.4"	Within leach field footprint
16	*Aesculus californica*	California buckeye	10" equivalent	Poor structure
17	*Quercus agrifolia*	Coast live oak	11.1",7.8"	Poor structure, decayed trunk
18	*Eucalyptus globulus*	Tasmanian blue gum	25.7",17.0"	Too close to leach field, poor structure
19	*Eucalyptus globulus*	Tasmanian blue gum	12.0",13.5",19.5", 14.0"	Too close to leach field, poor structure

Table 2.0 – Tree Removals

Tree Impacts and Recommendations

Tree Protection Zones

Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12

A Tree Protection Zone (TPZ) has been established for each remaining tree. Because of the landslide repairs, potential for grading, building footprint, leach field and retaining walls, all trees will be affected by construction, both along the driveway and on this property. The TPZ areas are graphically illustrated on the Tree Protection Plan (page 11), and the measured radius distances are shown in Table 3.0 below. If there is any difference, the measured radius distances in Table 3.0 will take precedence. Whenever

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work is performed within the TPZ of a tree, the tree must have tree protection measures in place, per this Arborist Report. When any excavation, trenching, grading or vehicular access occurs within a TPZ, the Project Arborist must be on site.

Pre-construction Pruning

Trees 1, 2, 3, 4, 5, 6, 7 and 12

Table 3.0 also indicates pruning requirements for certain trees. Pruning as specified will remove branches proactively to prevent broken branches from trucks that would cause injury to the protected trees. The pruning must be completed before construction of any type begins since this is part of the tree protection.

In some cases, branches will be cut back part way, and in other cases lower branches will need to be removed entirely. The driveway will need truck access past trees 1, 2, 3, 4, 5 and 7. The area where the landslide occurred will need equipment access beneath tree 6. Clearances for construction of the house will need some pruning of tree 12. All pruning must be completed under the direction of the Project Arborist.

Tree No.	*Genus species*	Common Name	Diameter	Pre-construction Pruning Requirements	Tree Protection Zone Diameter
1	*Quercus agrifolia*	Coast live oak	5.5"	Driveway clearances	11'
2	*Quercus agrifolia*	Coast live oak	13.0"	Driveway clearances	26'
3	*Quercus agrifolia*	Coast live oak	9.0"	Driveway clearances	18'
4	*Quercus agrifolia*	Coast live oak	22.5"	Driveway clearances	45'
5	*Quercus agrifolia*	Coast live oak	16.0"	Driveway clearances	32'
6	*Quercus agrifolia*	Coast live oak	13.0"	Cut back northwest side	26'
7	*Quercus agrifolia*	Coast live oak	14.5",16.7",15.5"	Driveway clearances	54'
9	*Quercus agrifolia*	Coast live oak	11.5"	None	23'
10	*Quercus agrifolia*	Coast live oak	11.7"	None	24'
11	*Quercus agrifolia*	Coast live oak	7.3"	None	15'
12	*Quercus agrifolia*	Coast live oak	18.6"	South side clearances	37'

Table 3.0 – Tree Protection

Root Collar Protection and Root Collar Excavations

Trees 1, 2, 3, 4, 5, 6, 9 and 12

The root collars of trees 1, 2, 3, 4, 5 and 6 are currently partially buried under fill soil. The fill soil is either from grading or accumulation over time. The excess soil should be removed to a distance of 2 feet on all sides of each tree. The embankment created by

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excavation should be supported by a dry stacked wall, similar to the wall currently in place, although materials may vary. This work must be completed under the direction of the Project Arborist.

Soil cannot be placed within any TPZ area at any time. The TPZ areas cannot be re-graded or raised to accommodate excess soil, tailings or fill soil.

Similarly, soil cannot be graded down, cut away, or otherwise moved or removed within any TPZ except as shown on the Lea & Braze utility plan sheet C-3.0 and as specified in this report,

Site and Soil Conditions

The site has soil conditions that are deep, sandy loam that has formed in place from native Franciscan sandstone. The soil has drainage, nutritional and chemical properties as necessary to support normal and healthy growth of all tree species found on the site. Of particular note, native tree species are normal and healthy, and appeared to be generally free of serious diseases that would indicate either a disease court, poor drainage or soil compaction, all of which are damaging to trees and to the horticultural properties of soil. Based on these observations, it appears that native species of coastal trees and shrubs are well-suited to the site and could be used in future landscaping.

To maintain favorable conditions for trees and landscaping, only native soil should be used in filled areas such as behind retaining walls near the leach field. To preserve horticultural properties of the soil, soil placed atop the leach field should be laid down without tamping, vibration, rolling, saturating or otherwise causing compaction that exceeds 85 percent.

Construction Footprints

Trees 7 and 12

Various construction footprints requiring excavation may affect remaining trees:

1. A retaining wall along the east edge of the new entry
2. Foundations for the house
3. Utility connections for the sanitary sewer system
4. Utility connections for water, gas and electrical
5. Driveway re-grading as part of new pavement

A new wall is needed to provide access to the front of the house at the driveway and security gate. This new wall has been pulled away from Tree 7 by 9 feet, and the grade of the driveway has been kept higher and close to the pre-construction grade to minimize root impacts. The TPZ of Tree 7 extends past the property lines and through

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the nearby driveway areas. Since roots from Tree 7 are likely to be encountered, work must be done under the supervision of the Project Arborist.

Foundations for the new house will encroach on the southwest part of the TPZ for Tree 12. The tree protective fence must be placed and secured before excavation work begins. The root system extending up hill and toward the foundation excavation is likely fairly minimal, but could include some larger roots, and therefore must be done under the supervision of the Project Arborist.

Utility connections for the new sanitary sewer system will be placed outside the foundations and will further encroach on part of the TPZ for Tree 12. This trenching will require that excavation tailings be placed on a temporary root buffer, that all work be done by hand, that common trenches be used whenever possible, and that the work be done under the supervision of the Project Arborist.

Utility connections that are placed underground are to travel down the landslide area. Use of this area will avoid trenching damage to the roots of the neighbor's oak trees along the driveway.

Driveway re-grading and new gravel as designed will likely have little impact on tree roots, except at retaining wall footings.

- I recommend that the retaining wall near Tree 7 be supported on drilled piers with above grade beams tying them together to support the wall.
- I recommend that base rock and new pavement be placed atop the existing grades without disturbance of the sub-grade. To avoid the need for compaction, I recommend the use of a geo-grid membrane to distribute loads and stabilize the base rock without any compaction of the sub-grade.

The Project Arborist must provide oversight of all work on the retaining wall footings, sub-grade compaction or grading, and the installation of a geo-grid membrane.

Construction Procedures

EXCAVATION

All tree protective fencing, root buffers, mulch and irrigation must be in place prior to demolition.

At no time is any wheeled equipment, a Bobcat® or an excavator allowed to enter or cross over TPZ areas, except where existing road surfaces remain as a temporary root buffer during construction.

NEW DRIVEWAY CONSTRUCTION

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Because of the Tree Protection Zones associated with the new driveway, the subgrade cannot be compacted or graded in any way.

The new driveway gravel will be laid atop a Tensar® geogrid (or equivalent) weight-disbursing membrane that is laid directly on uncompacted native soil and/or the existing gravel surface.

EXISTING DRIVEWAY AS A ROOT BUFFER

Retain the existing driveway as a temporary root buffer to protect Trees 1, 2, 3, 4, 5, 6 and 7 from soil compaction root damage.

If work occurs when rain is likely (November through April), additional protection is required in the TPZ of Tree 7. Place 1 1/8-inch thick sub-floor plywood over all soil areas, including the driveway, and secure the sheets together with clips or mending plates. This will offer further prevention of soil compaction and root damage.

The existing driveway will serve as the access point for all equipment and deliveries, and for staging of materials and debris.

STAGING AREAS

Staging areas are available in the areas of the existing driveway, and on the new leach field. Consult with Lea & Braze regarding protection needs for the leach field if it is used in this manner.

Any other or additional staging areas that are within TPZ areas will need to be placed on root buffers, subject to review and approval of the Project Arborist. The duration of root buffers within TPZ areas may be limited by the Project Arborist.

Tree Protection Implementation

Tree Protective Fencing

To implement tree protection measures effectively, precise measurement for fence locations is critical. Proper skills and equipment are required to place fences where they belong. It is essential that the fence installer refer to a copy of this Arborist Report and Table 3.0 at all times. Measurement of distances must be to within 6 inches, and cannot be completed properly by using either estimated or "paced off" distances. Required equipment will include an appropriate Engineer's scale and either a laser range finder or a 100-foot tape measure with a helper.

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It is recommended that fence posts be installed first. Measure each Tree Protection Zone (TPZ) and marking the TPZ locations with marking paint. Measure fence locations at the appropriate distance away from each footing, as shown on the Site Plan.

Fence boundaries must meet, match and enclose areas defined by existing fences. The exact location of existing fences is not known and must be determined in the field.

Following surface installations, chain link fencing must be strung tightly and closed off at all locations, including where abutting existing wooden fences.

TREE PROTECTIVE FENCING AND WARNING SIGNS

Placement: all fence installation lines are indicated on the Site Plan. Trees affected will include Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12.

Type and Size: 5 or 6-foot high chain link fencing shall be placed on 2 inch tubular galvanized iron posts driven a minimum of 2 feet into undisturbed soil and spaced not more than 10 feet on center.

Duration: Tree fencing shall be erected prior to any demolition activity, and shall remain in place for the duration of the project, except where a gap is needed for access to the detached garage.

'Warning' Signs: 'Warning' signs shall posted on Tree Protective Fencing not more than every 20 feet stating "WARNING – *Tree Protective Zone* – This fence shall not be removed"

Maintenance and Ongoing Care

Tree maintenance and ongoing care is necessary in preparation for construction, and throughout the entire timeline for construction. Anticipated needs include pruning, irrigation and tree protection during landscaping:

PRUNING

All pruning must be completed under the direction of the Project Arborist.

Pre-construction Pruning

Pre-construction pruning as specified above will remove limbs proactively to prevent broken branches and injury to the protected trees. This pruning will have some branches cut back part way, and trees will not necessarily be fully pruned or maintained as will ultimately be needed. Although the purpose of this pruning is to establish clearances for construction, it is also possible that some branch breakage will have occurred during the construction

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NEW RESIDENCE AT
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INTERIOR DESIGN PACKAGE

ARBORIST REPORT

12/12/2022

T2.1

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process. In the event that small branches are damaged, re-pruning to repair or correct any issue will likely best be left until the close of construction. Any branches larger than 1-inch diameter that are damaged should be reported immediately to the Project Arborist for their evaluation.

Post-construction Pruning

Pruning for overall structural improvement of the protected trees should occur at the close of construction, and before landscape installation. The exact pruning needs will need to be determined at that time, but will include improving the balance of canopies, shortening branches that are end-heavy and prone to breakage, and re-cutting or removing any branches that were broken during construction.

IRRIGATION

No supplemental irrigation is needed for the protected trees. These are all native species that are adapted to summer drought conditions. Summer irrigation of oak trees would put the trees at risk of developing root rot diseases. Construction impacts to the root systems are not expected to be severe enough to warrant the risks posed by summer irrigation.

New landscaping will require irrigation, and the plans are subject to review and approval by the Project Arborist. As a guideline, the new irrigation system should be low water use, should only operate during the dry season, and should be set up for drought tolerant and low water use plant material. It is our recommendation that plants native to the area be used for landscape purposes, and that the new irrigation system be designed for use on a minimal level and such that it is not necessary during drought conditions.

LANDSCAPING

New landscape designs are subject to reviewed and approval by the Project Arborist.

The new irrigation system must be designed to avoid the use of trenches across existing TPZ areas. If sub-surface trenches must be installed, common trenches should be used and they should stay as far away from the trees as possible. A trench running along a radius line directly toward a tree is preferable to a cross trench. If extensive trenching is done, Air-spade® excavation will be required.

Care must be taken to keep mulch away from the base of all trees and other woody plants. Similarly, soil grades must be carefully monitored to keep excess soil from accumulating around the base of trees and shrubs.

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Tree Removal Plan

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Tree Protection Plan

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Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Title and ownership of all property considered are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
4. Various diagrams, sketches and photographs in this report are intended as visual aids and are not to scale, unless specifically stated as such on the drawing. These communication tools in no way substitute for nor should be construed as surveys, architectural or engineering drawings.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written or verbal consent of the consultant.
7. This report is confidential and to be distributed only to the individual or entity to whom it is addressed. Any or all of the contents of this report may be conveyed to another party only with the express prior written or verbal consent of the consultant. Such limitations apply to the original report, a copy, facsimile, scanned image or digital version thereof.
8. This report represents the opinion of the consultant. In no way is the consultant's fee contingent upon a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule, an agreement or a contract.
10. Information contained in this report reflects observations made only to those items described and only reflects the condition of those items at the time of the site visit. Furthermore, the inspection is limited to visual examination of items and elements at the site, unless expressly stated otherwise. There is no expressed or implied warranty or guarantee that problems or deficiencies of the plants or property inspected may not arise in the future.

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 near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to 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 any medicine, cannot be guaranteed.

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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, and other issues. An arborist cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

Certification of Performance

I, Roy C. Leggitt, III, Certify:

- That we have inspected the trees and/or property evaluated in this report. We have stated findings accurately, insofar as the limitations of the Assignment and within the extent and context identified by this report;
- That we have no current or prospective interest in the vegetation or any real estate that is the subject of this report, and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are original and are based on current scientific procedures and facts and according to commonly accepted arboricultural practices;
- That no significant professional assistance was provided, except as indicated by the inclusion of another professional report within this report;
- That compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I am a member in good standing of the American Society of Consulting Arborists and a member and Certified Arborist with the International Society of Arboriculture.

I have attained professional training in all areas of knowledge asserted through this report by completion of a Bachelor of Science degree in Plant Science, by routinely attending pertinent professional conferences and by reading current research from professional journals, books and other media.

I have rendered professional services in a full-time capacity in the field of horticulture and arboriculture for more than 30 years.

Signed: Roy C. Leggitt, III

Date: 12/12/20

Description	Date
REVISION 1	12/18/2020

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NEW RESIDENCE AT
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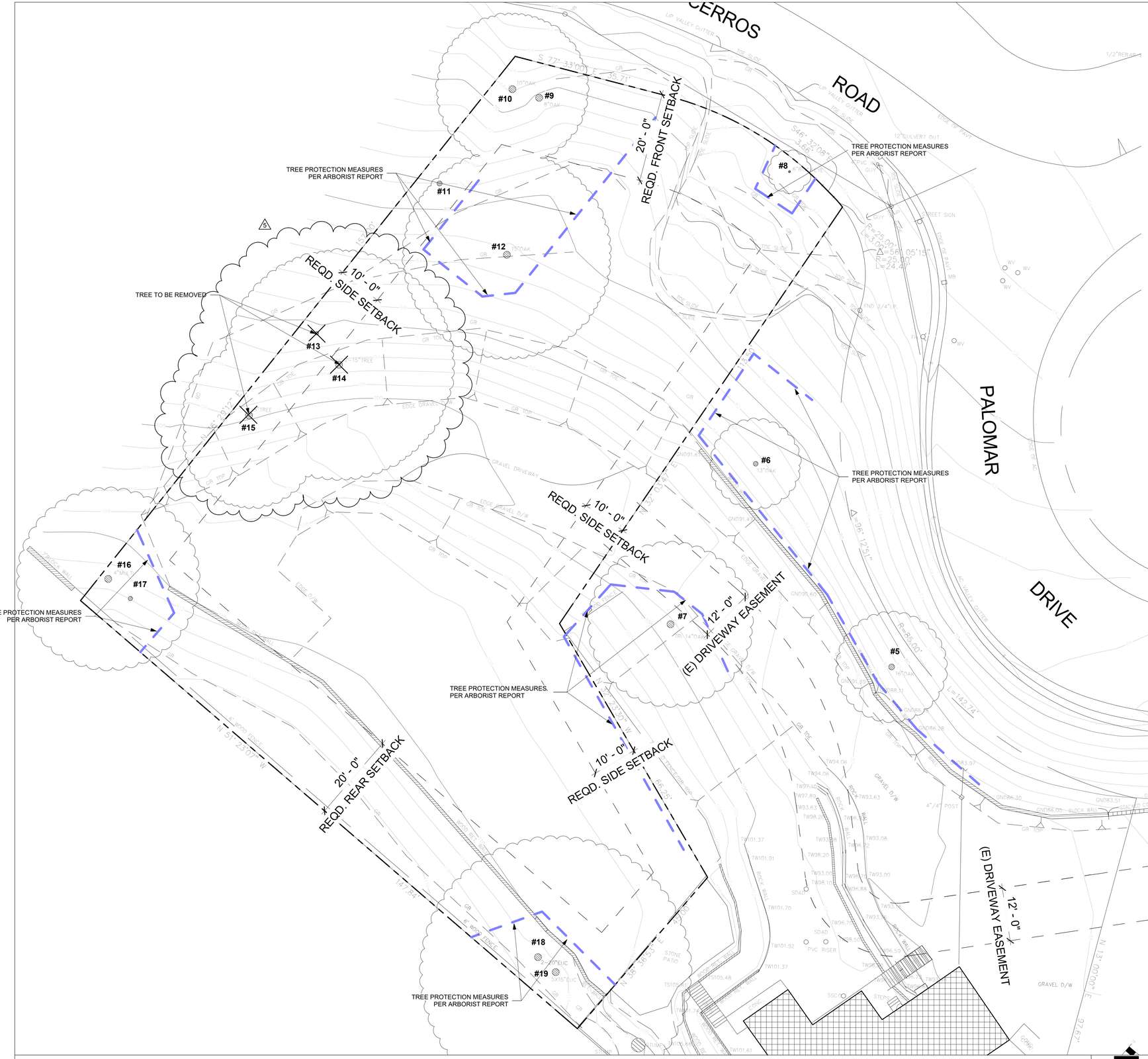
INTERIOR DESIGN PACKAGE

ARBORIST REPORT

12/12/2022

T2.2



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INTERIOR DESIGN PACKAGE

(E) SITE PLAN / TREE
PROTECTION MEASURES

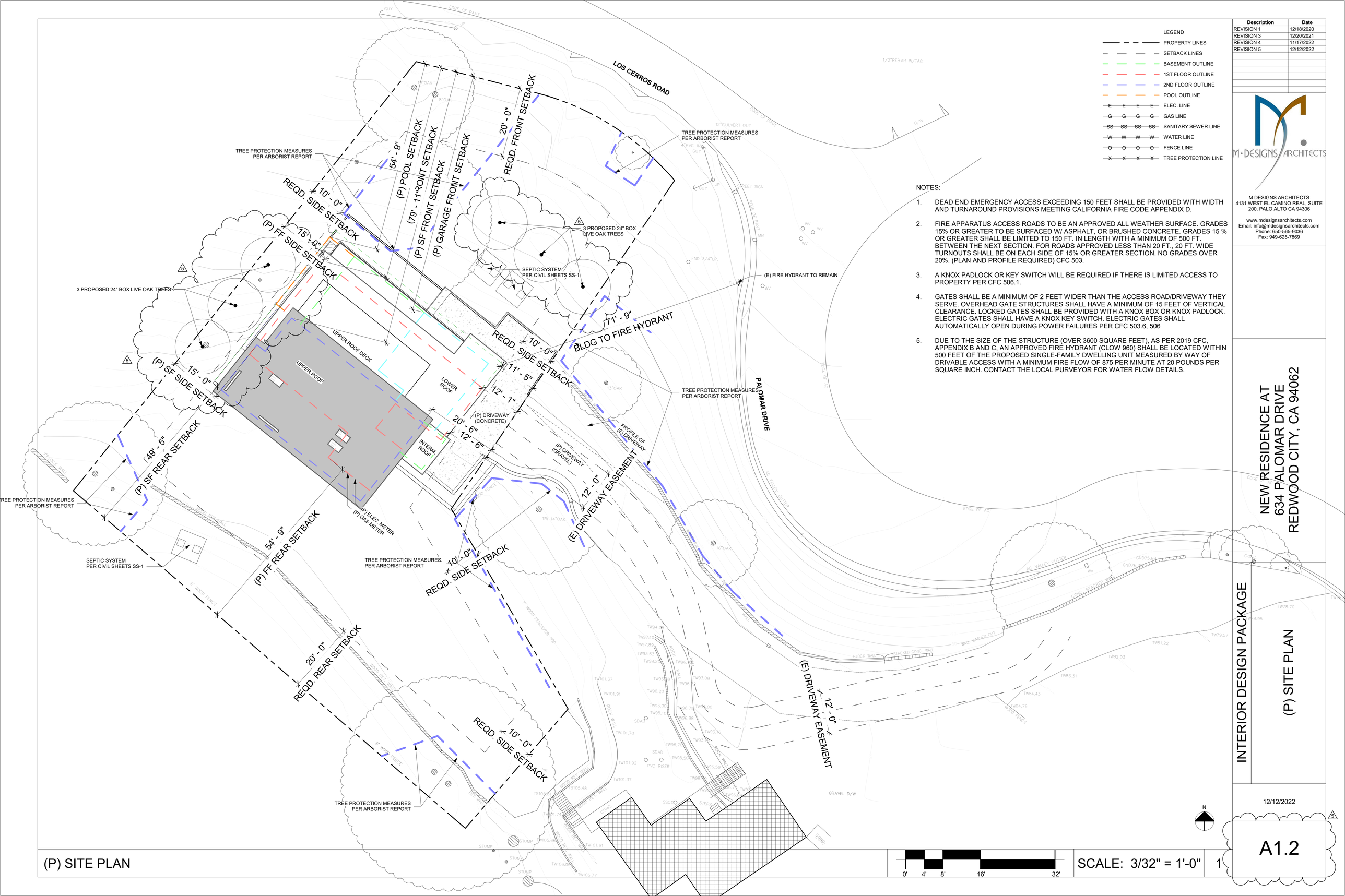
12/12/2022

5

A1.1

(E) SITE PLAN / TREE PROTECTION MEASURES

SCALE: 3/32" = 1'-0"



LEGEND

- PROPERTY LINES
- SETBACK LINES
- BASEMENT OUTLINE
- 1ST FLOOR OUTLINE
- 2ND FLOOR OUTLINE
- POOL OUTLINE
- ELEC. LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- FENCE LINE
- TREE PROTECTION LINE

NOTES:

1. DEAD END EMERGENCY ACCESS EXCEEDING 150 FEET SHALL BE PROVIDED WITH WIDTH AND TURNAROUND PROVISIONS MEETING CALIFORNIA FIRE CODE APPENDIX D.
2. FIRE APPARATUS ACCESS ROADS TO BE AN APPROVED ALL WEATHER SURFACE. GRADES 15% OR GREATER TO BE SURFACED W/ ASPHALT, OR BRUSHED CONCRETE. GRADES 15 % OR GREATER SHALL BE LIMITED TO 150 FT. IN LENGTH WITH A MINIMUM OF 500 FT. BETWEEN THE NEXT SECTION. FOR ROADS APPROVED LESS THAN 20 FT., 20 FT. WIDE TURNOUTS SHALL BE ON EACH SIDE OF 15% OR GREATER SECTION. NO GRADES OVER 20%. (PLAN AND PROFILE REQUIRED) CFC 503.
3. A KNOX PADLOCK OR KEY SWITCH WILL BE REQUIRED IF THERE IS LIMITED ACCESS TO PROPERTY PER CFC 506.1.
4. GATES SHALL BE A MINIMUM OF 2 FEET WIDER THAN THE ACCESS ROAD/DRIVEWAY THEY SERVE. OVERHEAD GATE STRUCTURES SHALL HAVE A MINIMUM OF 15 FEET OF VERTICAL CLEARANCE. LOCKED GATES SHALL BE PROVIDED WITH A KNOX BOX OR KNOX PADLOCK. ELECTRIC GATES SHALL HAVE A KNOX KEY SWITCH. ELECTRIC GATES SHALL AUTOMATICALLY OPEN DURING POWER FAILURES PER CFC 503.6, 506
5. DUE TO THE SIZE OF THE STRUCTURE (OVER 3600 SQUARE FEET), AS PER 2019 CFC, APPENDIX B AND C, AN APPROVED FIRE HYDRANT (CLOW 960) SHALL BE LOCATED WITHIN 500 FEET OF THE PROPOSED SINGLE-FAMILY DWELLING UNIT MEASURED BY WAY OF DRIVABLE ACCESS WITH A MINIMUM FIRE FLOW OF 875 PER MINUTE AT 20 POUNDS PER SQUARE INCH. CONTACT THE LOCAL PURVEYOR FOR WATER FLOW DETAILS.

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REVISION 1	12/18/2020
REVISION 3	12/20/2021
REVISION 4	11/17/2022
REVISION 5	12/12/2022

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INTERIOR DESIGN PACKAGE

(P) SITE PLAN

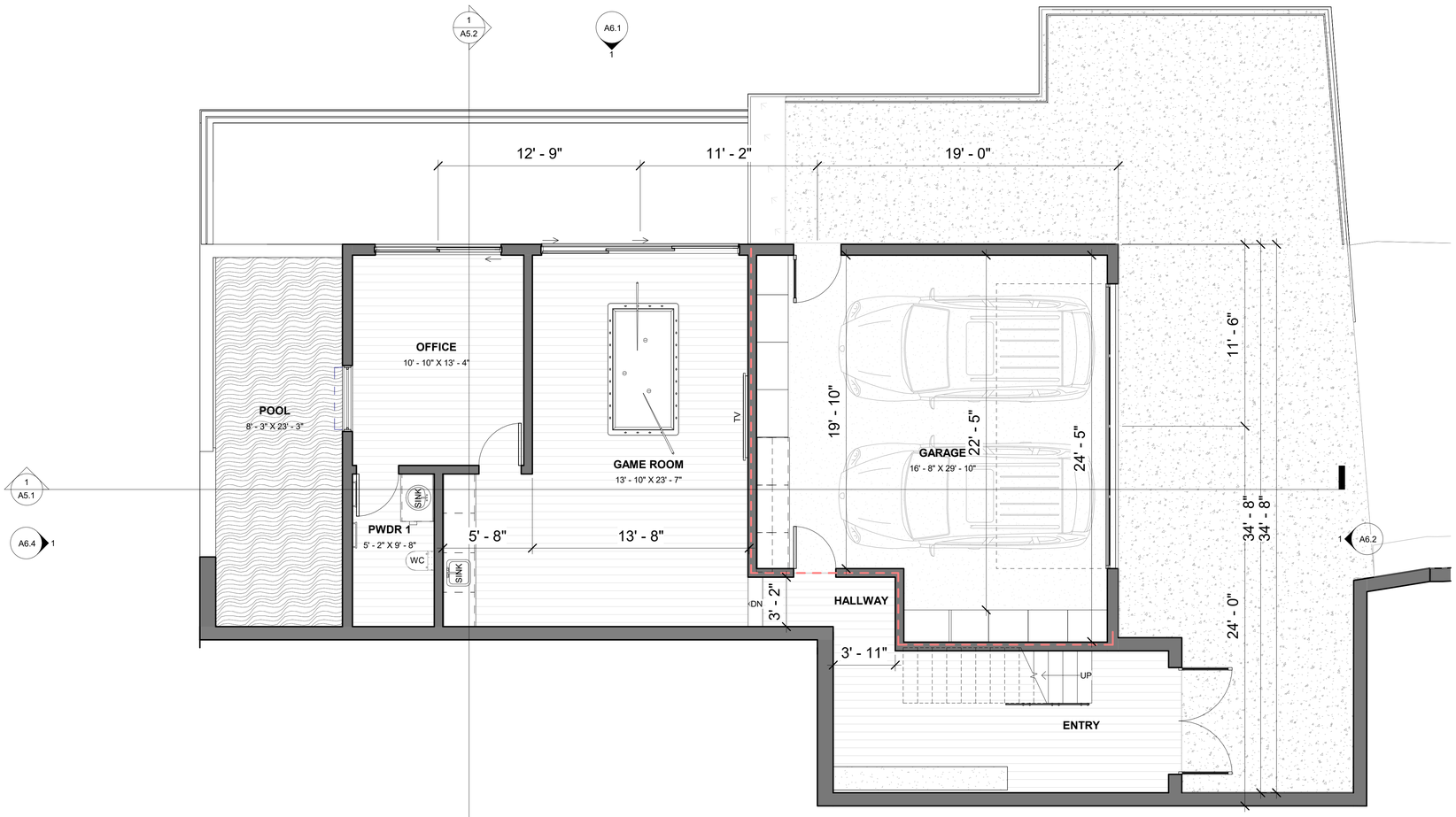
12/12/2022

A1.2

(P) SITE PLAN

0' 4' 8' 16' 32'

SCALE: 3/32" = 1'-0"



LEGEND

- (E) WALLS TO REMAIN
- (P) NEW WALLS
- 1-HOUR FIRE-RATED WALLS
- # WALL TAG
- # WINDOW TAG
- # DOOR TAG
- T TEMPERED TAG
- OBS OBSCURE TAG
- # PLAN NOTE
- SD SMOKE DETECTOR
- SD SMOKE & CARBON MONOXIDE DETECTOR
- EM ELECTRIC METER
- GM GAS METER

NOTES:

1. SMOKE ALARM SHALL BE HARD WIRED PER THE CALIFORNIA BUILDING CODE, AND STATE FIRE MARSHAL REGULATIONS. THE APPLICANT IS REQUIRED TO INSTALL STATE FIRE MARSHAL APPROVED AND LISTED SMOKE DETECTORS WHICH ARE HARD WIRED, INTERCONNECTED, AND HAVE BATTERY BACKUP. THESE DETECTORS ARE REQUIRED TO BE PLACED IN EACH NEW AND RECONDITION SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. IN EXISTING SLEEPING ROOMS, AREAS MAY HAVE BATTERY POWERED SMOKE ALARMS. A MINIMUM OF ONE DETECTOR SHALL BE PLACED ON EACH FLOOR. SMOKE DETECTORS SHALL BE TESTED AND APPROVED PRIOR TO THE BUILDING FINAL. DATE OF INSTALLATION MUST BE ADDED TO EXTERIOR OF THE SMOKE ALARM AND WILL BE CHECKED AT FINAL.
2. SMOKE ALARMS TO BE INSTALLED PER MANUFACTURES INSTRUCTION AND NFPA 72
3. ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET, 5.0 SQ. FT. ALLOWED AT GRADE. THE MINIMUM ET CLEAR OPENABLE HEIGHT DIMENSION SHALL BE 24 INCHES. THE NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20 INCHES. FINISHED SILL HEIGHT SHALL BE NOT MORE THAN 44 INCHES ABOVE THE FINISHED FLOOR. (CFC 2019 SECTION 1030.2).
4. NEW RESIDENTIAL BUILDINGS SHALL HAVE INTERNALLY ILLUMINATED ADDRESS NUMBERS CONTRASTING WITH THE BACKGROUND SO AS TO BE SEEN FROM THE PUBLIC WAY FRONTING THE BUILDING. THE LETTERS/NUMERALS FOR PERMANENT ADDRESS SIGNS SHALL BE 4 INCHES IN HEIGHT WITH A MINIMUM 1/2-INCH STROKE. RESIDENTIAL ADDRESS NUMBERS SHALL BE AT LEAST SIX FEET ABOVE THE FINISHED SURFACE OF THE DRIVEWAY. WHERE BUILDINGS ARE LOCATED REMOTELY TO THE PUBLIC ROADWAY, ADDITIONAL SIGNAGE AT THE DRIVEWAY/ROADWAY ENTRANCE LEADING TO THE BUILDING AND/OR ON EACH INDIVIDUAL BUILDING SHALL BE REQUIRED. THIS REMOTE SIGNAGE SHALL CONSIST OF A 6 INCH BY 18 INCH GREEN REFLECTIVE METAL SIGN WITH 3 INCH REFLECTIVE NUMBERS/ LETTERS SIMILAR TO HY-KO 911 OR EQUIVALENT. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE).
5. (FIRE SPRINKLER PLANS WILL REQUIRE A SEPARATE PERMIT), THE APPLICANT IS REQUIRED TO INSTALL AN AUTOMATIC FIRE SPRINKLER SYSTEM THROUGHOUT THE PROPOSED OR IMPROVED DWELLING AND GARAGE. ALL ATTIC ACCESS LOCATIONS WILL BE PROVIDED WITH A PILOT HEAD ON A METAL UPRIGHT. SPRINKLER COVERAGE SHALL BE PROVIDED THROUGHOUT THE RESIDENCE TO INCLUDE ALL BATHROOMS, GARAGES, AND ANY AREA USED FOR STORAGE. THE ONLY EXCEPTION IS SMALL LINEN CLOSETS LESS THAN 24 SQUARE FEET WITH FULL DEPTH SHELVING. THE PLANS FOR THIS SYSTEM MUST BE SUBMITTED TO THE SAN MATEO COUNTY PLANNING AND BUILDING DEPARTMENT. A BUILDING PERMIT WILL NOT BE ISSUED UNTIL PLANS ARE RECEIVED, REVIEWED AND APPROVED. UPON SUBMISSION OF PLANS, THE COUNTY WILL FORWARD A COMPLETE SET TO THE COASTSIDE FIRE DISTRICT FOR REVIEW.
6. AN EXTERIOR BELL IS REQUIRED TO BE WIRED INTO THE REQUIRED FLOW SWITCH ON YOUR FIRE SPRINKLER SYSTEM

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REVISION 3	12/20/2021

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INTERIOR DESIGN PACKAGE

(P) BASE FLOOR PLAN

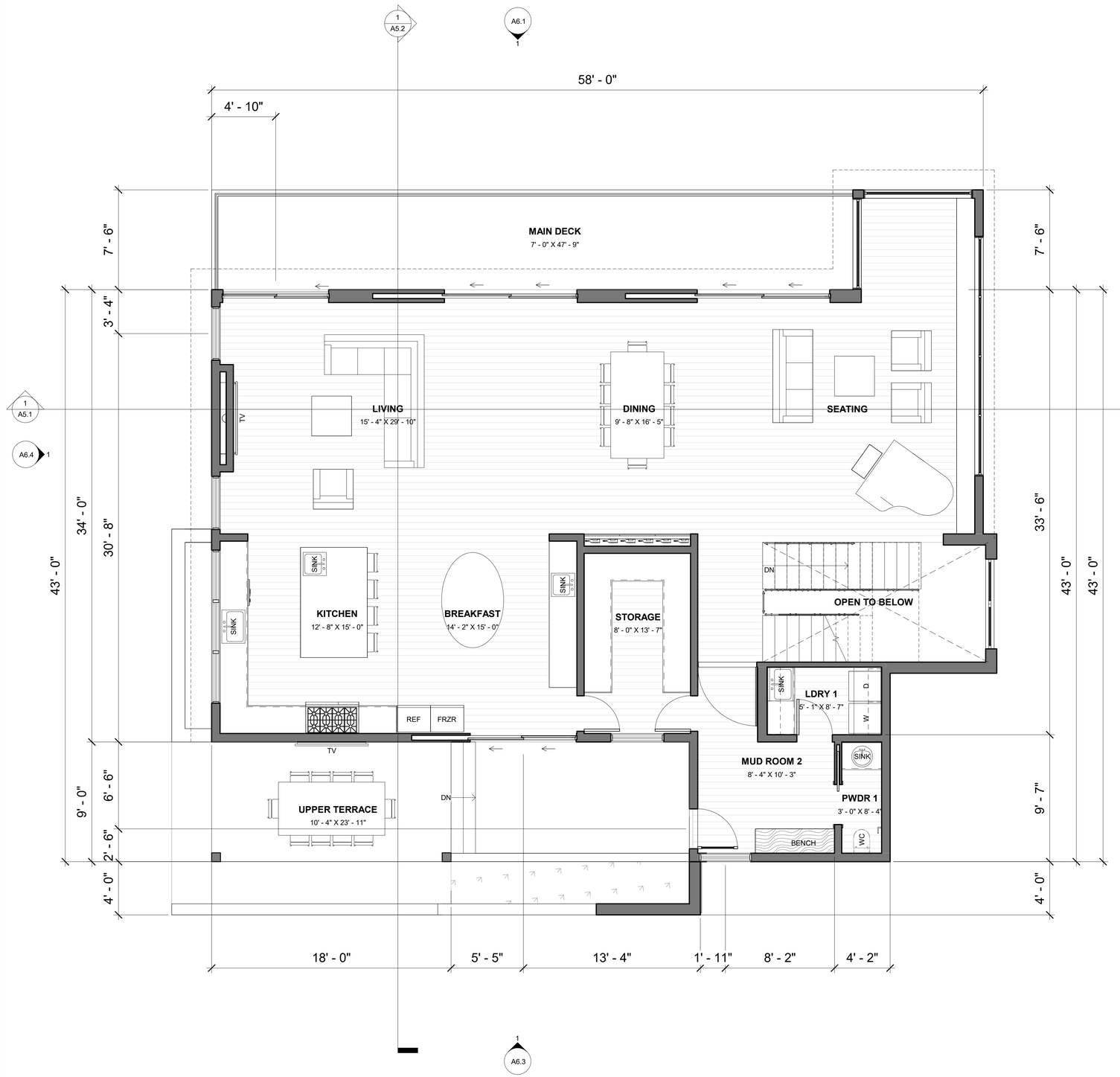
12/12/2022

A2.1

(P) BASE FLOOR PLAN

0' 2' 4' 8' 16'

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



LEGEND

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4. NEW RESIDENTIAL BUILDINGS SHALL HAVE INTERNALLY ILLUMINATED ADDRESS NUMBERS CONTRASTING WITH THE BACKGROUND SO AS TO BE SEEN FROM THE PUBLIC WAY FRONTING THE BUILDING. THE LETTERS/NUMERALS FOR PERMANENT ADDRESS SIGNS SHALL BE 4 INCHES IN HEIGHT WITH A MINIMUM 1/2-INCH STROKE. RESIDENTIAL ADDRESS NUMBERS SHALL BE AT LEAST SIX FEET ABOVE THE FINISHED SURFACE OF THE DRIVEWAY. WHERE BUILDINGS ARE LOCATED REMOTELY TO THE PUBLIC ROADWAY, ADDITIONAL SIGNAGE AT THE DRIVEWAY/ROADWAY ENTRANCE LEADING TO THE BUILDING AND/OR ON EACH INDIVIDUAL BUILDING SHALL BE REQUIRED. THIS REMOTE SIGNAGE SHALL CONSIST OF A 6 INCH BY 18 INCH GREEN REFLECTIVE METAL SIGN WITH 3 INCH REFLECTIVE NUMBERS/ LETTERS SIMILAR TO HY-KO 911 OR EQUIVALENT. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE).
5. (FIRE SPRINKLER PLANS WILL REQUIRE A SEPARATE PERMIT). THE APPLICANT IS REQUIRED TO INSTALL AN AUTOMATIC FIRE SPRINKLER SYSTEM THROUGHOUT THE PROPOSED OR IMPROVED DWELLING AND GARAGE. ALL ATTIC ACCESS LOCATIONS WILL BE PROVIDED WITH A PILOT HEAD ON A METAL UPRIGHT. SPRINKLER COVERAGE SHALL BE PROVIDED THROUGHOUT THE RESIDENCE TO INCLUDE ALL BATHROOMS, GARAGES, AND ANY AREA USED FOR STORAGE. THE ONLY EXCEPTION IS SMALL LINEN CLOSETS LESS THAN 24 SQUARE FEET WITH FULL DEPTH SHELVING. THE PLANS FOR THIS SYSTEM MUST BE SUBMITTED TO THE SAN MATEO COUNTY PLANNING AND BUILDING DEPARTMENT. A BUILDING PERMIT WILL NOT BE ISSUED UNTIL PLANS ARE RECEIVED, REVIEWED AND APPROVED. UPON SUBMISSION OF PLANS, THE COUNTY WILL FORWARD A COMPLETE SET TO THE COASTSIDE FIRE DISTRICT FOR REVIEW.
6. AN EXTERIOR BELL IS REQUIRED TO BE WIRED INTO THE REQUIRED FLOW SWITCH ON YOUR FIRE SPRINKLER SYSTEM

Description	Date
REVISION 1	12/18/2020
REVISION 4	11/17/2022

M DESIGNS ARCHITECTS
4131 WEST EL CAMINO REAL, SUITE 200, PALO ALTO CA 94306

www.mdesignsarchitects.com
Email: info@mdesignsarchitects.com
Phone: 650-565-9036
Fax: 949-625-7869

NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

(P) 1ST FLOOR PLAN

12/12/2022

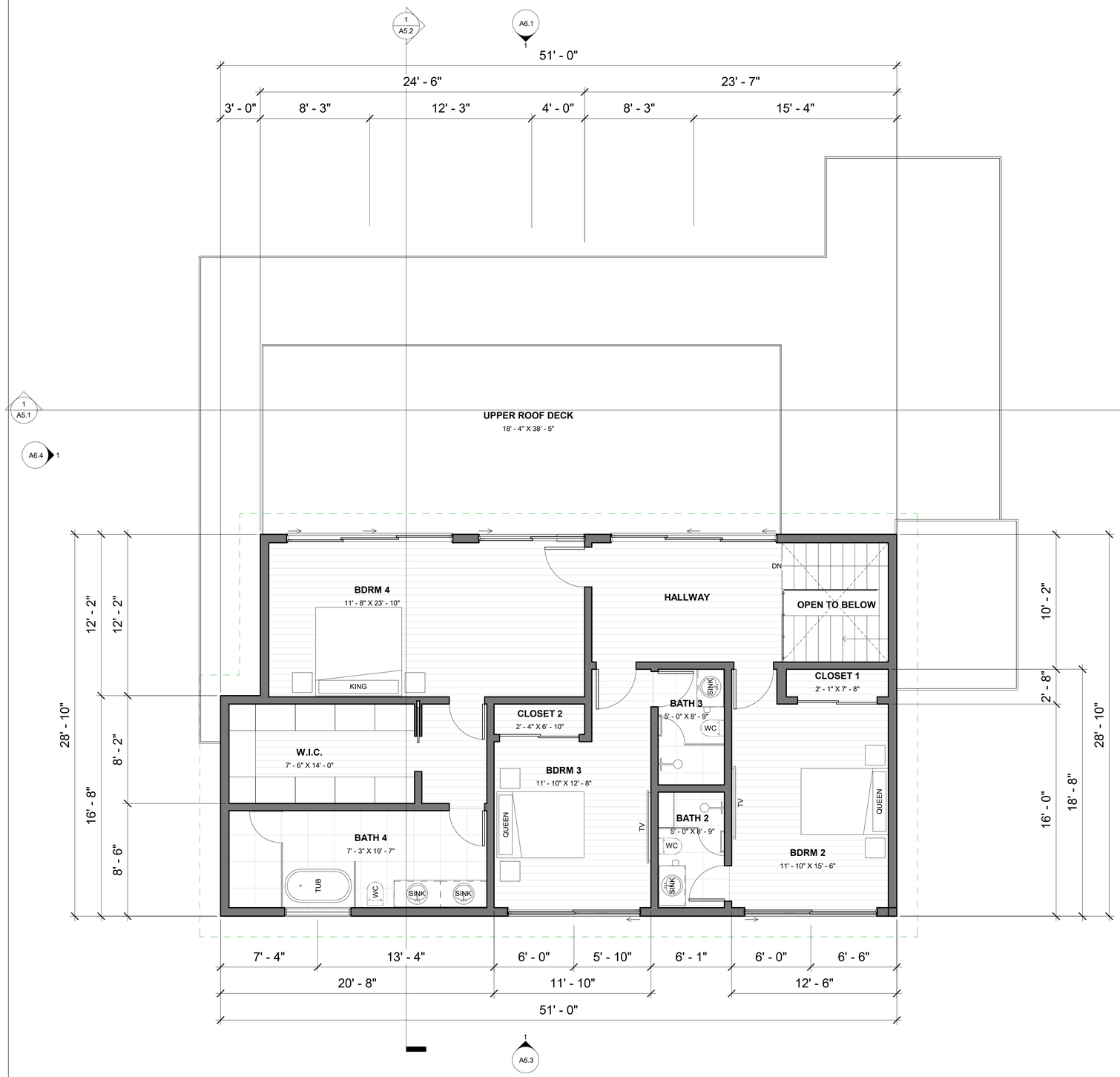
A2.2

(P) 1ST FLOOR PLAN

0' 2' 4' 8' 16'

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

1



LEGEND

- (E) WALLS TO REMAIN
- (P) NEW WALLS
- 1-HOUR FIRE-RATED WALLS
- # WALL TAG
- # WINDOW TAG
- # DOOR TAG
- T TEMPERED TAG
- OBS OBSCURE TAG
- # PLAN NOTE
- SD SMOKE DETECTOR
- SD SMOKE & CARBON MONOXIDE DETECTOR
- EM ELECTRIC METER
- GM GAS METER

NOTES:

1. SMOKE ALARM SHALL BE HARD WIRED PER THE CALIFORNIA BUILDING CODE, AND STATE FIRE MARSHAL REGULATIONS. THE APPLICANT IS REQUIRED TO INSTALL STATE FIRE MARSHAL APPROVED AND LISTED SMOKE DETECTORS WHICH ARE HARD WIRED, INTERCONNECTED, AND HAVE BATTERY BACKUP. THESE DETECTORS ARE REQUIRED TO BE PLACED IN EACH NEW AND RECONDITION SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. IN EXISTING SLEEPING ROOMS, AREAS MAY HAVE BATTERY POWERED SMOKE ALARMS. A MINIMUM OF ONE DETECTOR SHALL BE PLACED ON EACH FLOOR. SMOKE DETECTORS SHALL BE TESTED AND APPROVED PRIOR TO THE BUILDING FINAL. DATE OF INSTALLATION MUST BE ADDED TO EXTERIOR OF THE SMOKE ALARM AND WILL BE CHECKED AT FINAL.
2. SMOKE ALARMS TO BE INSTALLED PER MANUFACTURES INSTRUCTION AND NFPA 72
3. ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET, 5.0 SQ. FT. ALLOWED AT GRADE. THE MINIMUM ET CLEAR OPENABLE HEIGHT DIMENSION SHALL BE 24 INCHES. THE NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20 INCHES. FINISHED SILL HEIGHT SHALL BE NOT MORE THAN 44 INCHES ABOVE THE FINISHED FLOOR. (CFC 2019 SECTION 1030.2).
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REVISION 1	12/18/2020

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NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

(P) 2ND FLOOR PLAN

12/12/2022

A2.3

(P) 2ND FLOOR PLAN

0' 2' 4' 8' 16'

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

NOTE: THE BUILDING IS IN A VERY HIGH FIRE HAZARD SEVERITY ZONE AND WILL REQUIRE A CLASS A ROOF.

LOWER ROOF

INTERM. ROOF

UPPER ROOF

1" / 12"

1" / 12"

50% SLOPED ROOF

Description	Date
REVISION 1	12/18/2020
REVISION 4	11/17/2022

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NEW RESIDENCE AT
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REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

(P) ROOF PLAN

12/12/2022

A4.1

(P) ROOF PLAN

SCALE: As indicated | 1

LEGEND

(E) WALLS, FLOORS, AND ROOFS TO REMAIN

LEGEND

(P) NEW WALLS, FLOORS AND ROOFS

(#) WALL TAG

(#) WALL TAG

(#) WINDOW TAG

(#) WINDOW TAG

(#) DOOR TAG

(#) DOOR TAG

(T) TEMPERED TAG

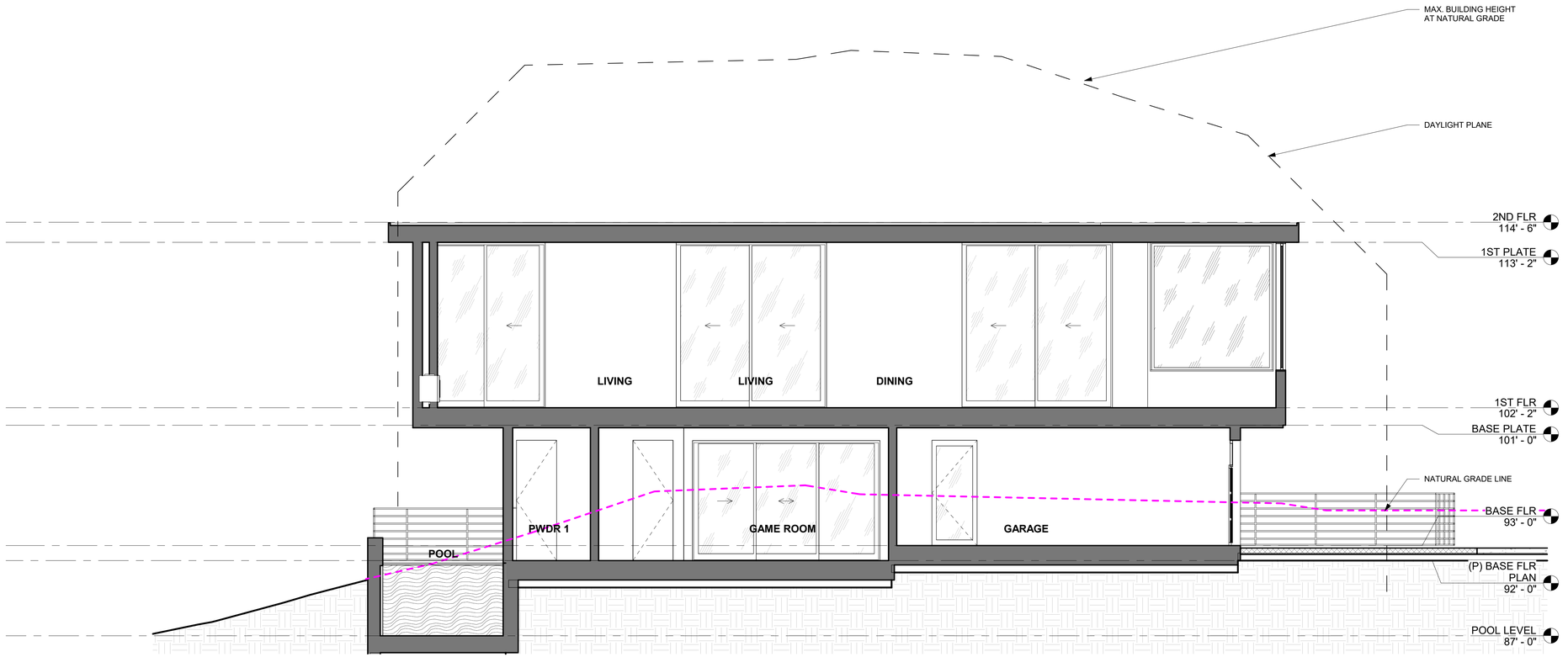
(T) TEMPERED TAG

(OBS) OBSCURE TAG

(OBS) OBSCURE TAG

(#) PLAN NOTE

(#) PLAN NOTE



Description	Date
REVISION 4	11/17/2022

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NEW RESIDENCE AT
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INTERIOR DESIGN PACKAGE

(P) A-A SECTION

12/12/2022

A5.1

(P) A-A SECTION

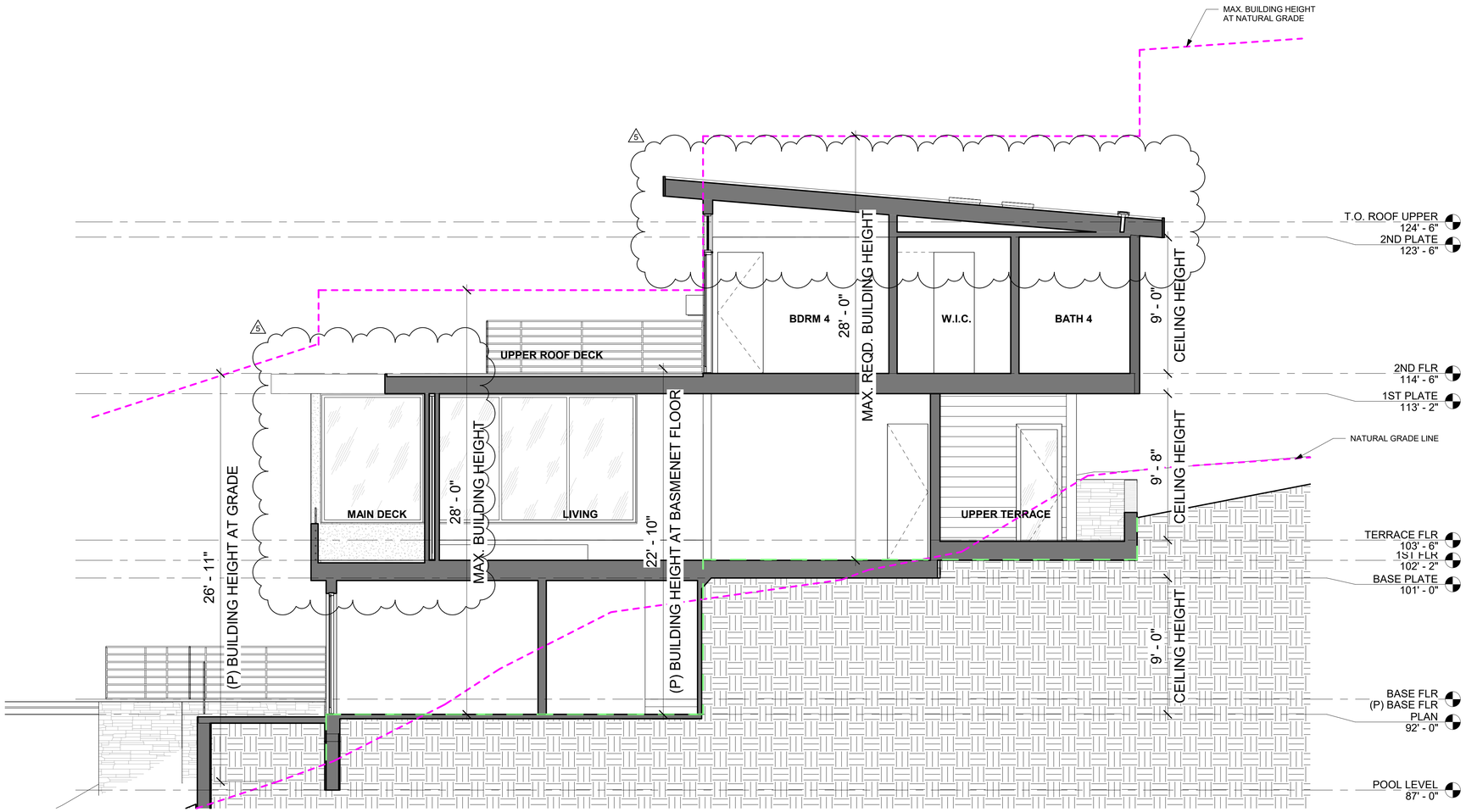
0' 2' 4' 8' 16'

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

1

LEGEND

- (#) WALL TAG
- (#) WINDOW TAG
- (#) DOOR TAG
- (T) TEMPERED TAG
- (OBS) OBSCURE TAG
- (#) PLAN NOTE



Description	Date
REVISION 5	12/12/2022

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INTERIOR DESIGN PACKAGE

(P) B-B SECTION

12/12/2022

A5.2

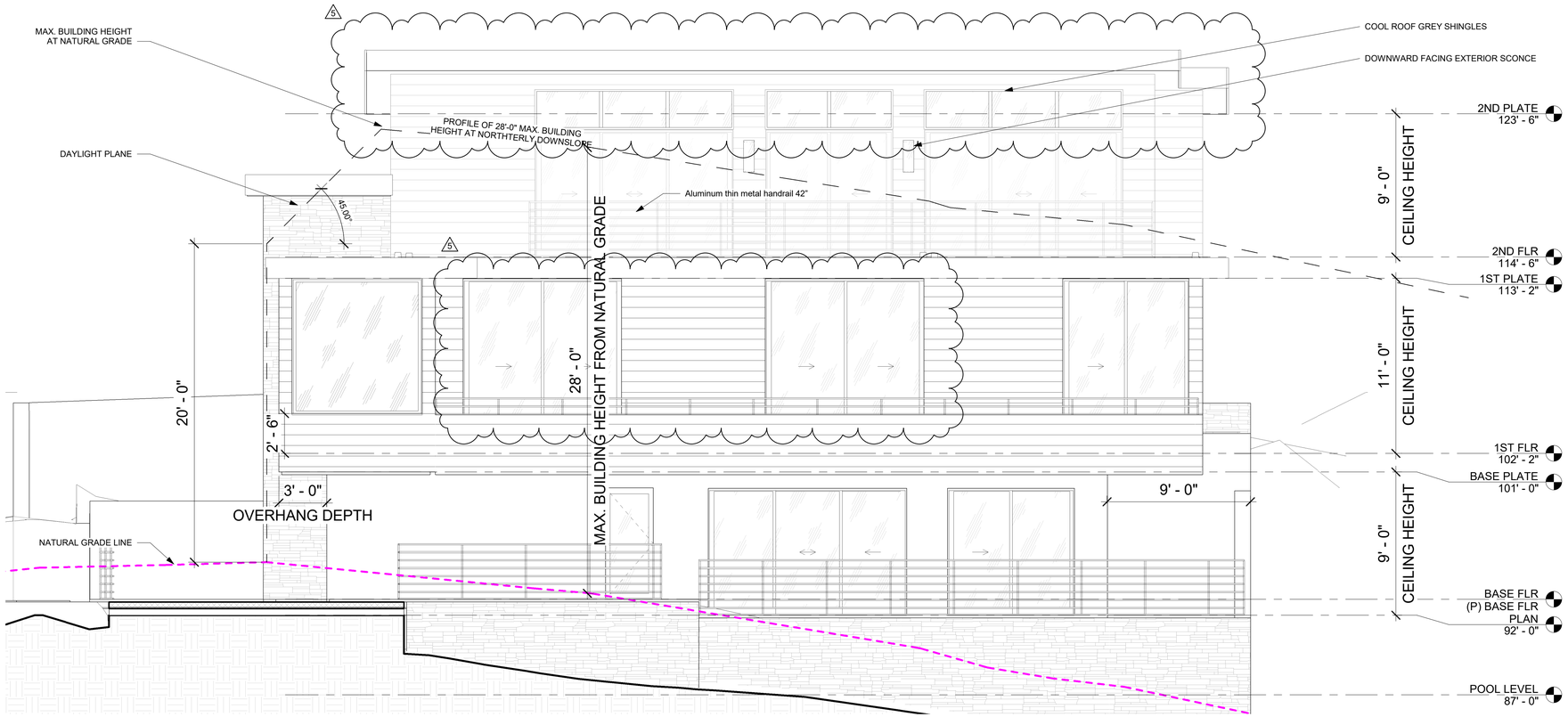
(P) B-B SECTION

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

LEGEND

- (#) WALL TAG
- (#) WINDOW TAG
- (#) DOOR TAG
- (T) TEMPERED TAG
- (OBS) OBSCURE TAG
- (#) PLAN NOTE

Description	Date
REVISION 4	11/17/2022
REVISION 5	12/12/2022



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INTERIOR DESIGN PACKAGE

(P) NORTH ELEVATIONS

12/12/2022

A6.1

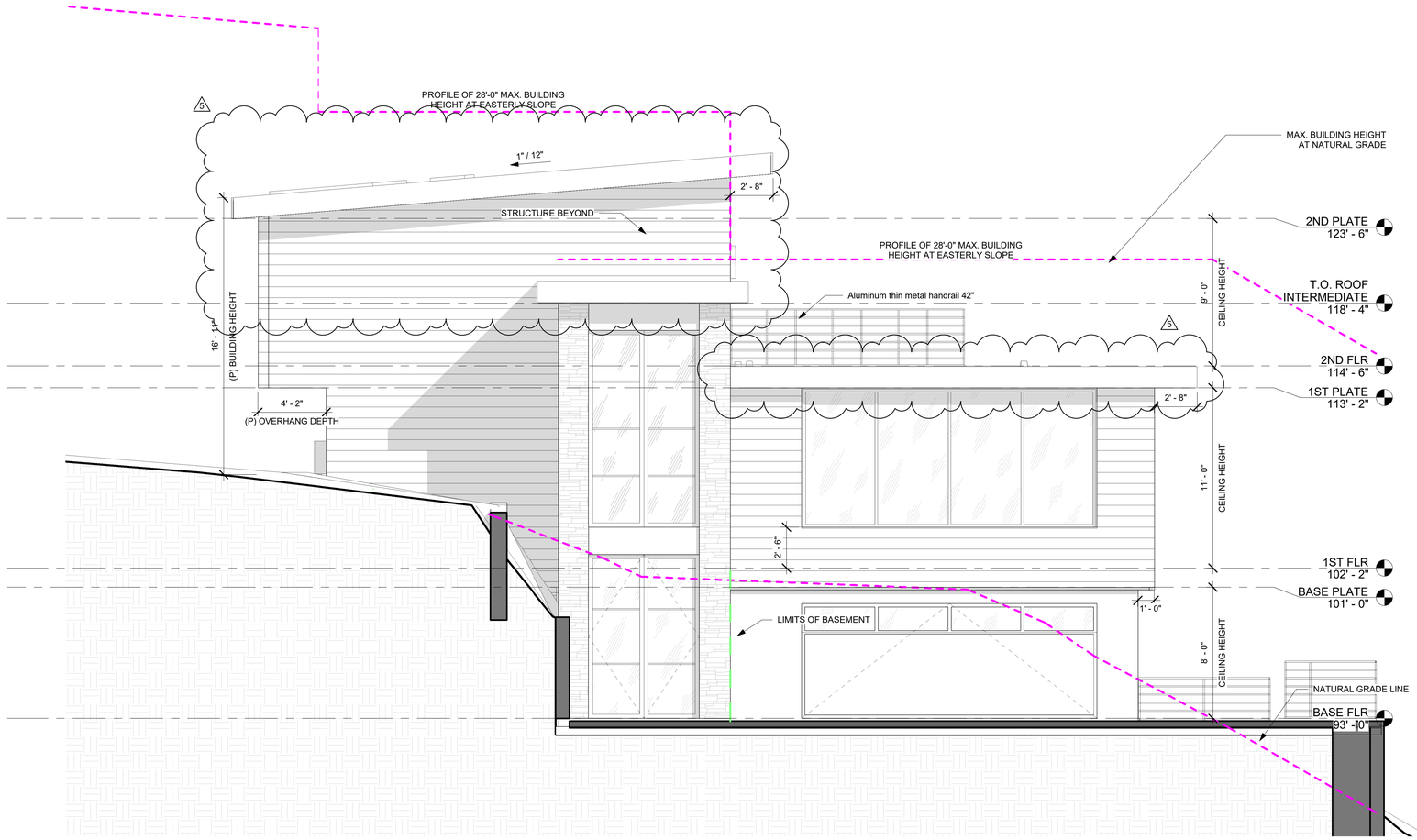
(P) NORTH ELEVATIONS

0' 2' 4' 8' 16'

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

LEGEND

- (#) WALL TAG
- (#) WINDOW TAG
- (#) DOOR TAG
- (T) TEMPERED TAG
- (OBS) OBSCURE TAG
- (#) PLAN NOTE



Description	Date
REVISION 5	12/12/2022

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NEW RESIDENCE AT
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REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

(P) EAST ELEVATIONS

12/12/2022

5

A6.2

(P) EAST ELEVATIONS

0' 2' 4' 8' 16'

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

LEGEND

- (#) WALL TAG
- (#) WINDOW TAG
- (#) DOOR TAG
- (T) TEMPERED TAG
- (OBS) OBSCURE TAG
- (#) PLAN NOTE

Description	Date
REVISION 5	12/12/2022

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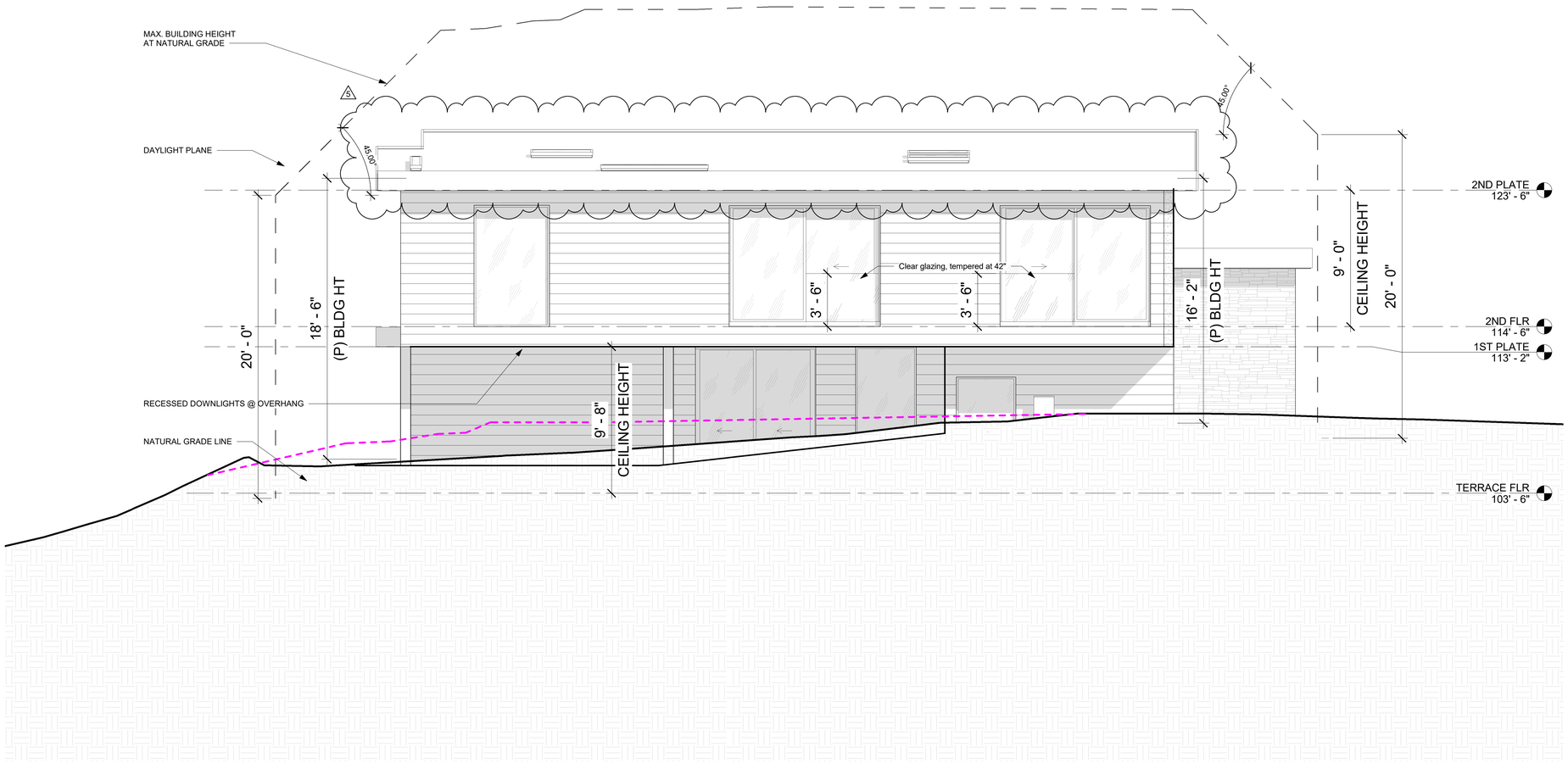


NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

(P) SOUTH ELEVATION

12/12/2022

5

A6.3

(P) SOUTH ELEVATION

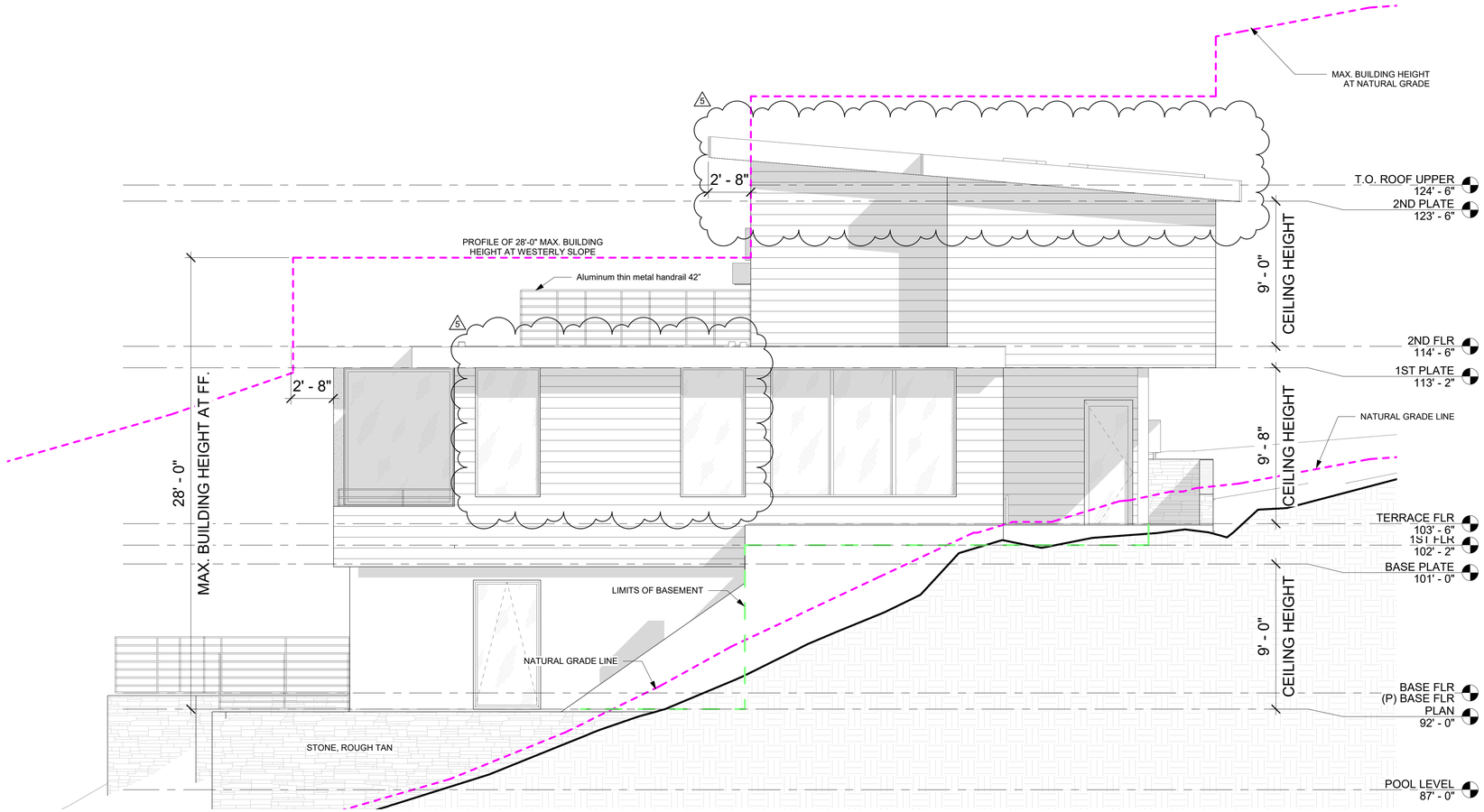
0' 2' 4' 8' 16'

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

LEGEND

- (#) WALL TAG
- (#) WINDOW TAG
- (#) DOOR TAG
- (T) TEMPERED TAG
- (OBS) OBSCURE TAG
- (#) PLAN NOTE

Description	Date
REVISION 5	12/12/2022



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NEW RESIDENCE AT
634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

(P) WEST ELEVATION

12/12/2022

5

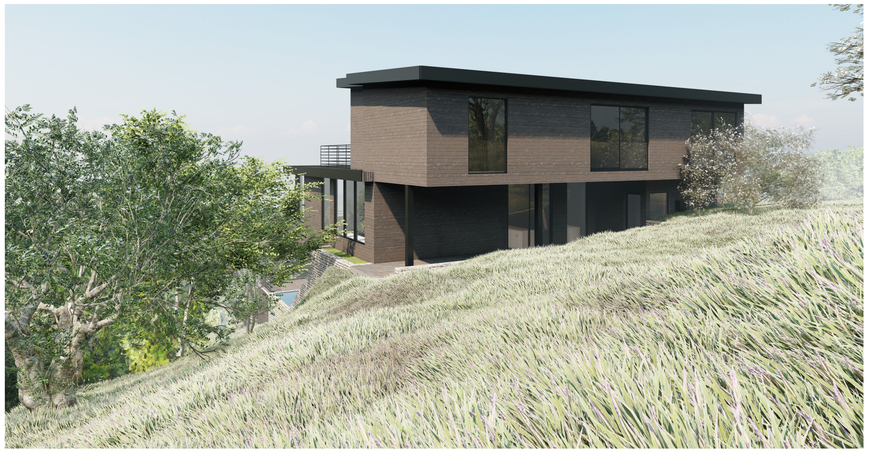
A6.4

(P) WEST ELEVATION

0' 2' 4' 8' 16'

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

FRONT VIEW



REAR VIEW

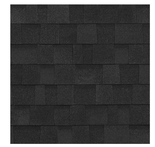
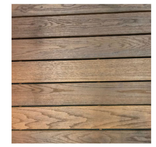
STREET VIEW

M·DESIGNS ARCHITECTS

September 26, 2022

Subject: MATERIALS BOARD

Re: 634 PALOMAR DRIVE
REDWOOD CITY, CA 94062

	
ROOF - MENARD BLACK SHINGLES	WINDOWS & DOORS TRIM- BLACK
	
STONE – CORONADO VEIJO RANCH BLEND	WOOD SIDING – POPULAR WOOD T&G

Description	Date
REVISION 1	12/18/2020
REVISION 4	11/17/2022

M·DESIGNS ARCHITECTS

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NEW RESIDENCE AT
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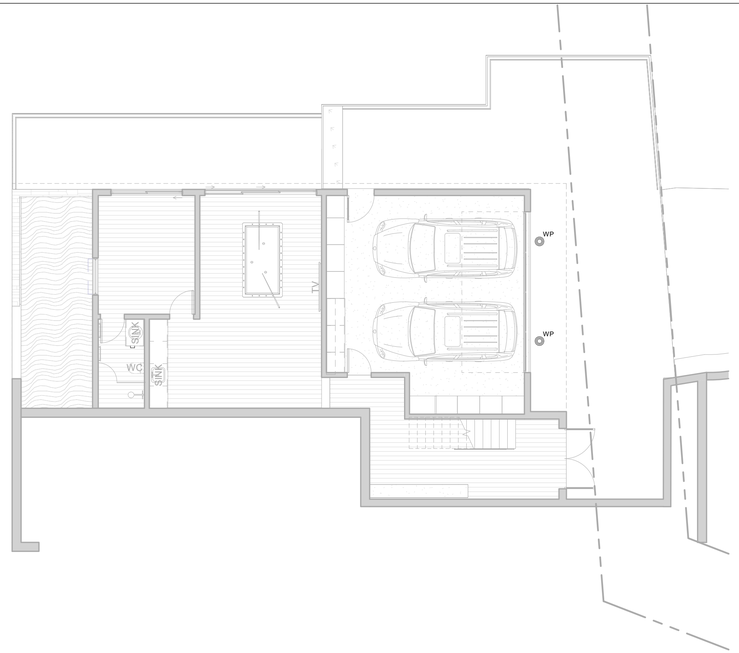
REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

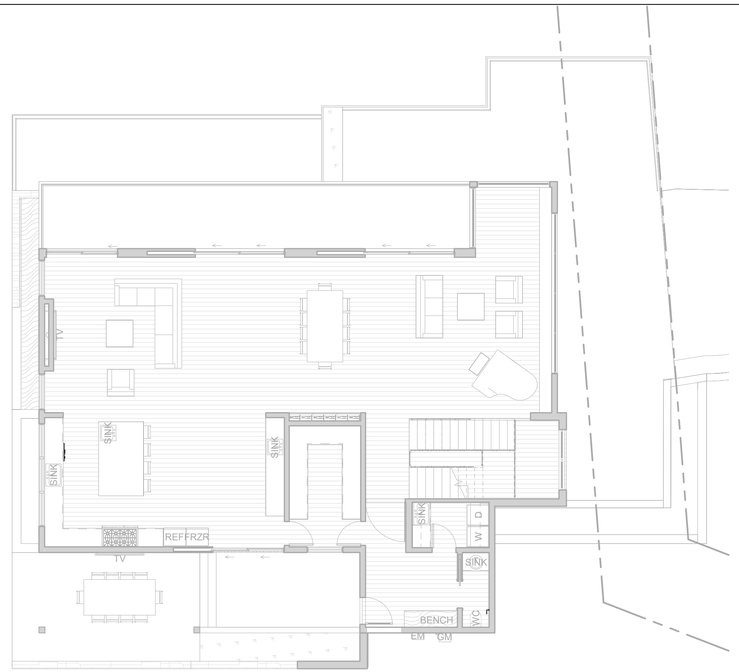
COLOR/MATERIAL BOARD

12/12/2022

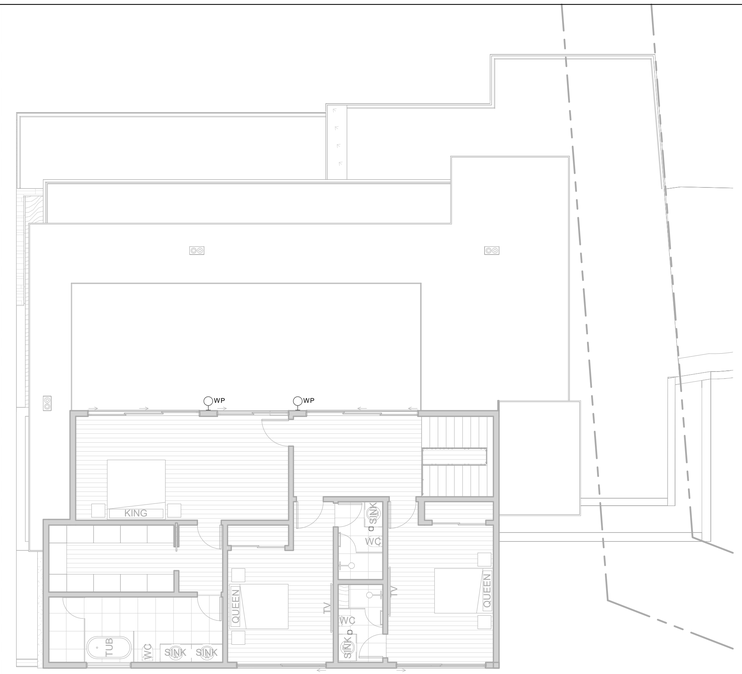
CB.1



BASEMENT FLLOR EXTERIOR LIGHTING PLAN



FIRST FLOOR EXTERIOR LIGHTING PLAN



SECOND FLOOR EXTERIOR LIGHTING PLAN

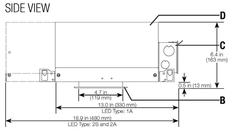
Finiré | 4" LED Recessed Lighting
17 W, 18 W, and 20 W IC LED Round Adjustable

LUTRON IVALO COLLECTION

367-2168x 1 07.08.2019

DIMENSIONS

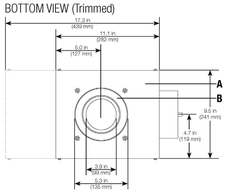
SIDE VIEW



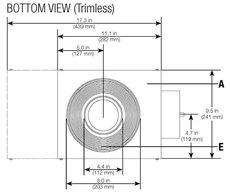
A Frame
B Trim
C Junction Box
D IC Housing
E Mud Ring†

Lutron Hi-lume 1% LED Driver not shown

BOTTOM VIEW (Trimmed)



BOTTOM VIEW (Trimless)



PRINCIPAL FEATURES

- Xicato LEDs: 83 CRI (typical) or 97 CRI, R9=95 (typical).
- 50,000 hours rated LED system life (LED and driver) at 77 °F (25 °C) ambient.
- Powerful adjustable LED module in efficient trim with excellent cutoff.
- Standard Lutron Hi-lume 1% LED Driver delivers continuous, flicker-free dimming from 100% down to 1% of measured light output.
- Hi-lume 1% EcoSystem LED Driver features Soft-on, Fade-to-Black technology.‡
- 20°, 30°, 36°, 40° and 50° beam angles available.
- Trim supports a variety of lens/accessory options.
- IC fixtures must be used for installations containing insulating materials. Non-IC fixtures cannot be used in this type of application.
- IC fixtures meet airtight and Chicago plenum construction requirements for 2.0 CFM or less air leakage.
- Frame constructed of 20 gauge steel.
- UL® and cUL Listed.
- Supplied with 14 in to 24 in (356 mm to 610 mm) adjustable bar hangers.
- LED optics rotate 357° and tilt from 0° to 42°.
- Housings finished with reclaimed black powder coat.
- Adjustable mounting brackets can be mounted on any side of the fixture.
- Field replaceable components:
  - Beam angle reflector
  - Lutron LED driver
  - LED module with integrated heat sink
  - Decorative trim/lens
- 2-wire forward phase controls are generally for residential applications. EcoSystem controls are generally for commercial applications.

SPECIFICATIONS

Operating Temperature: 32 °F to 104 °F (0 °C to 40 °C)
Decibel Rating: Quiet in a 25 dB room
Max Ceiling Thickness: 2.0 in (50 mm)
Mud Ring Thickness†: 0.125 in (3 mm)
Ceiling Cutout: ø 4.8 in (ø 122 mm)
Fixture Weight: 4.0 lb (1.8 kg)
Fixture Size (by LED Type):
– 1A: 13.0 in x 9.5 in x 6.4 in (330 mm x 241 mm x 163 mm)
– 2S and 2A: 18.9 in x 9.5 in x 6.4 in (480 mm x 241 mm x 163 mm)
Junction Box Size: 4.9 in x 3.1 in x 1.75 in (124 mm x 79 mm x 44 mm). See NEC® chart 314.16A for box fill/wiring capacity.

COMPATIBLE CONTROLS

Visit www.lutron.com/finire

† Mud ring is for trimless fixtures only.
‡ PWM dimming below 5% for Hi-lume 1% EcoSystem drivers.

Slant LED Indoor & Outdoor Wall Light

By dwelLED

YLIGHTING
Call Us 866.428.9289

Product Options

Finish: Brushed Aluminum , Black

Details

- May be mounted on wall vertically or upside down
- ACLED driver
- Designed in 2019
- Material: Aluminum
- Dimmable when used with a Electronic low voltage (ELV) Dimmer (Not Included)
- Dimmer Range: ELV Dimming: 100 - 10%
- ADA compliant, Dark Sky compliant, Title 24 compliant
- ETL Listed Wet
- Warranty: 5 Years Functional, 2 Years Finish
- Made In China

Dimensions

Fixture: Length 5", Width 3.25", Height 10.63"

Lighting

- 7 Watt (440 Lumens) 120 Volt Integrated LED: CRI: 90 Color Temp: 3000K Lifespan: 50000 hours

Additional Details

Product URL:
https://www.ylighting.com/slant-led-indoor-and-outdoor-wall-light-by-dwelled-DWEP266554.html

Rating: ETL Listed Wet

Notes:

Product ID: DWEP266554

Prepared by:

Prepared for:
Project:
Room:
Placement:
Approval:

Created December 20th, 2021

Description	Date
REVISION 1	12/18/2020
REVISION 3	12/20/2021

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NEW RESIDENCE AT
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REDWOOD CITY, CA 94062

INTERIOR DESIGN PACKAGE

EXTERIOR LIGHTING

12/12/2022

E2.0

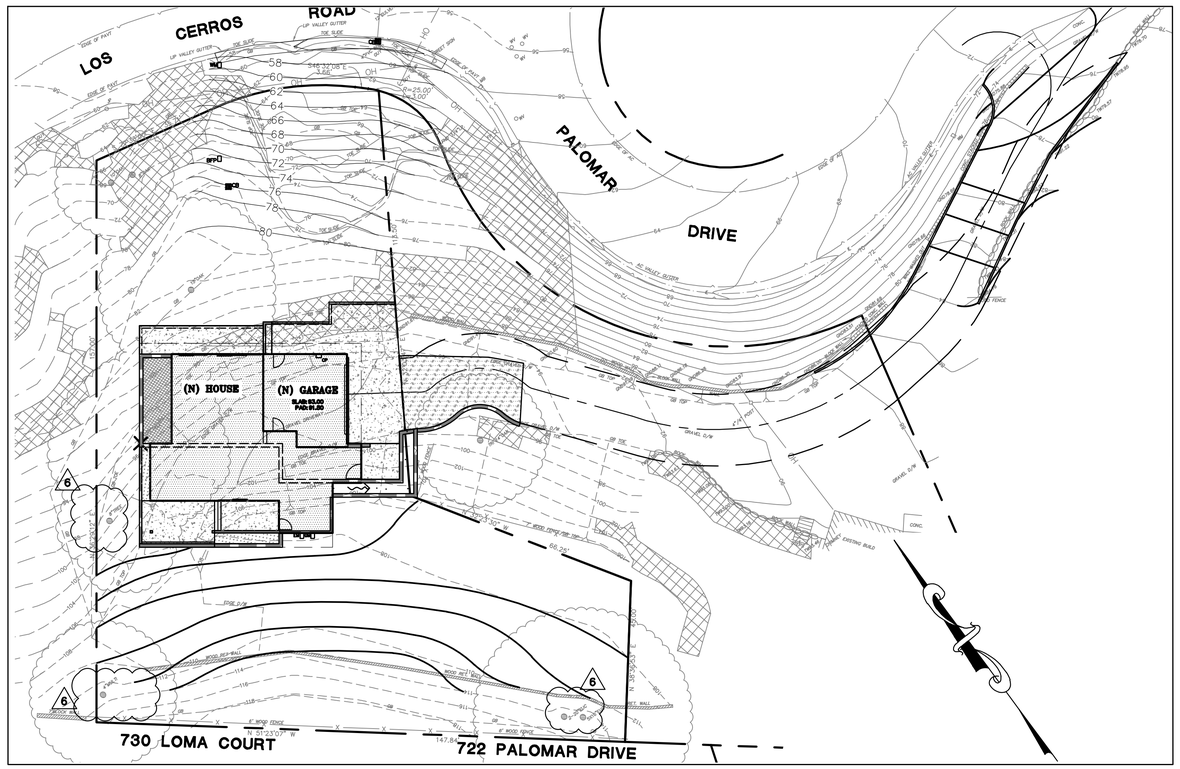
634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA
UNINCORPORATED
SAN MATEO COUNTY

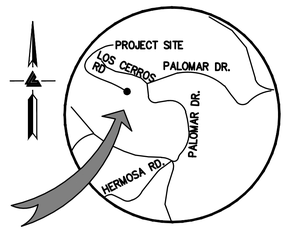
LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BOUNDARY
		PROPERTY LINE
		RETAINING WALL
		LANDSCAPE RETAINING WALL
RW RW	RW RW	RAINWATER TIGHTLINE
SUB	SUB	SUBDRAIN LINE
TL	TL	TIGHTLINE
SD	SD	STORM DRAIN LINE
SS	SS	SANITARY SEWER LINE
W	W	WATER LINE
G	G	GAS LINE
P	P	PRESSURE LINE
JT	JT	JOINT TRENCH
		SET BACK LINE
		CONCRETE VALLEY GUTTER
		EARTHEN SWALE
CB	CB	CATCH BASIN
JB	JB	JUNCTION BOX
AD	AD	AREA DRAIN
		CURB INLET
SDMH	SDMH	STORM DRAIN MANHOLE
		FIRE HYDRANT
SSMH	SSMH	SANITARY SEWER MANHOLE
		STREET SIGN
222.57 INV	222.57 INV	SPOT ELEVATION
		FLOW DIRECTION
	D	DEMOLISH/REMOVE
		BENCHMARK
200	200	CONTOURS
XX" TREE		TREE TO BE REMOVED

ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	MAX	MAXIMUM
ACC	ACCESSIBLE	MH	MANHOLE
AD	AREA DRAIN	MIN	MINIMUM
BC	BEGINNING OF CURVE	MON.	MONUMENT
B & D	BEARING & DISTANCE	(N)	NEW
BM	BENCHMARK	NO.	NUMBER
BW/FG	BOTTOM OF WALL/FINISH GRADE	NTS	NOT TO SCALE
CB	CATCH BASIN	O.C.	ON CENTER
C & G	CURB AND GUTTER	O/	OVER
℄	CENTER LINE	(PA)	PLANTING AREA
CPP	CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR)	PED	PEDESTRIAN
		PIV	POST INDICATOR VALVE
		PSS	PUBLIC SERVICES EASEMENT
CO	CLEANOUT	ℙ	PROPERTY LINE
COTG	CLEANOUT TO GRADE	PP	POWER POLE
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT
CONST	CONSTRUCT or –TION	PVC	POLYVINYL CHLORIDE
CONC COR	CONCRETE CORNER	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DIAMETER	RIM	RIM ELEVATION
DI	DROP INLET	RW	RAINWATER
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
EA	EACH	S	SLOPE
EC	END OF CURVE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATIONS	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
EQ	EQUIPMENT	SHT	SHEET
EW	EACH WAY	S.L.D.	SEE LANDSCAPE DRAWINGS
(E)	EXISTING	SPEC	SPECIFICATION
FC	FACE OF CURB	SS	SANITARY SEWER
FF	FINISHED FLOOR	SSCO	SANITARY SEWER CLEANOUT
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FH	FIRE HYDRANT	ST.	STREET
FL	FLOW LINE	STA	STATION
FS	FINISHED SURFACE	STD	STANDARD
G	GAS	STRUCT	STRUCTURAL
GA	GAGE OR GAUGE	T	TELEPHONE
GB	GRADE BREAK	TC	TOP OF CURB
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TEMP	TEMPORARY
		TP	TOP OF PAVEMENT
HORIZ	HORIZONTAL	TW/FG	TOP OF WALL/FINISH GRADE
HI PT	HIGH POINT	TYP	TYPICAL
H&T	HUB & TACK	VC	VERTICAL CURVE
ID	INSIDE DIAMETER	VCP	VITRIFIED CLAY PIPE
INV	INVERT ELEVATION	VERT	VERTICAL
JB	JUNCTION BOX	W/	WITH
JT	JOINT TRENCH	W, WL	WATER LINE
JP	JOINT UTILITY POLE	WM	WATER METER
L	LENGTH	WWF	WELDED WIRE FABRIC
LNDG	LANDING		





VICINITY MAP
NTS

OWNER'S INFORMATION

OWNER:
DAVID JACKSON AND ANUSHA THALAPANENI
485 BRYANT STREET, APT. B
SAN FRANCISCO, CALIFORNIA

APN: 051-022-380

REFERENCES

THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO:

1. TOPOGRAPHIC SURVEY BY GIULIANI & KULL, INC.,
   ENTITLED;
   "TOPOGRAPHIC SURVEY"
   634 PALOMAR DRIVE
   REDWOOD CITY, CALIFORNIA
   DATED: 3-24-17
   JOB#14144

2. ARCHITECTURAL AND SITE DESIGN PLANS BY M. DESIGN ARCHITECTS.
   ENTITLED:
   "NEW RESIDENCE AT 634 PALOMAR DRIVE"
   634 PALOMAR DRIVE
   REDWOOD CITY, CALIFORNIA
   DATED: 04-22-20
   JOB#:

3. SOIL REPORT BY ATLAS GEOSPHERE CONSULTANTS, INC.,
   ENTITLED:
   "PROPOSED RESIDENTIAL DEVELOPMENT"
   634 PALOMAR DRIVE
   REDWOOD CITY, CALIFORNIA
   DATE: 07-29-2020
   JOB# 91-55905-A

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

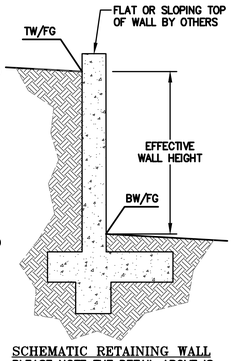
SITE DEVELOPMENT INFORMATION

TOTAL SITE AREA: 18,129 SQFT / 0.42 ACRE
TOTAL DISTURBED AREA: 14,359 SQFT / 0.33 ACRE

RETAINING WALL NOTES

1. TW/FG REPRESENTS FINISHED EARTHEN GRADE OR PAVEMENT ELEVATION AT TOP OF WALL, NOT ACTUAL TOP OF WALL MATERIAL. BW/FG REPRESENTS FINISH EARTHEN GRADE OR PAVEMENT ELEVATION AT BOTTOM OF WALL NOT INCLUDING FILL FOUNDATION. GRADES INDICATED ON THESE PLANS REFER TO THE FINISHED GRADES ADJACENT TO THE RETAINING WALL, NOT INCLUDING FOOTING, FREEBOARD, ETC.
2. DIMENSIONS SHOWN IN BRACKETS SHOWN AS [X.X'] DENOTE THE EFFECTIVE WALL HEIGHT ONLY. THE ACTUAL WALL HEIGHT AND DEPTH MAY DIFFER DUE TO CONSTRUCTION REQUIREMENTS.
3. REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR STRUCTURAL ELEMENTS, FREEBOARD, AND EMBEDMENT.
4. REFER TO ARCHITECTURAL, LANDSCAPE ARCHITECTURE, AND/OR STRUCTURAL PLANS FOR DETAILS, WALL ELEVATIONS, SUBDRAINAGE, WATERPROOFING, FINISHES, COLORS, STEEL REINFORCING, MATERIALS, ETC. PROVIDE CLIPS OR OTHER MEANS OF SECURING FINISH MATERIALS AS NECESSARY (WET SET INTO THE WALL).
5. ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT HYDROSTATIC PRESSURE.
6. SEE DETAIL SHEET FOR SPECIFIC INFORMATION.
7. PROVIDE GUARDRAIL (WHERE APPLICABLE AND DESIGNED BY OTHERS) AS REQUIRED FOR GRADE SEPARATION OF 30 INCHES OR MORE MEASURED 5' HORIZONTALLY FROM FACE OF WALL, PER CBC.

KEY MAP
1" = 20'



SCHEMATIC RETAINING WALL
PLEASE NOTE THE DETAIL ABOVE IS SCHEMATIC ONLY AND DOES NOT PERTAIN TO ANY SPECIFIC RETAINING WALL LOCATED ON-SITE.

ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	SWIMMING POOL(S) AND SPA(S)	OFFSITE/ ROADWAY	TOTAL CUBIC YARDS
CUT	525	290	35	30	880
FILL	0	90	0	0	90
EXPORT					790
NOTE:					

GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.

* BUILDING PAD NOTE:
ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

INSPECTIONS REQUIRED
THE COUNTY OF SAN MATEO REQUIRES LEA & BRAZE ENGINEERING, INC. TO INSPECT ALL STORM DRAINAGE AS IT IS INSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING, INC. PRIOR TO START OF CONSTRUCTION TO SET UP A PRE-CONSTRUCTION MEETING, AND TO CALL AT LEAST 48 HOURS IN ADVANCE OF ANY INSPECTIONS. PIPES ARE TO REMAIN UNCOVERED UNTIL AN INSPECTION PERFORMED BY LEA & BRAZE ENGINEERING, INC. OCCURS.
POINT OF CONTACT:
JIM TOBY
LEA & BRAZE ENGINEERING, INC.
(510)887-4086 jtoby@leabraze.com

SHEET INDEX

REGISTERED PROFESSIONAL ENGINEER JAMES TOBY No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
MAIN OFFICE: 2495 INDUSTRIAL PKWY WEST HAYWARD, CALIFORNIA 94545 (510) 887-4086
REGIONAL OFFICES: ROSEVILLE DUBLIN SAN JOSE
WWW.LEABRAZE.COM

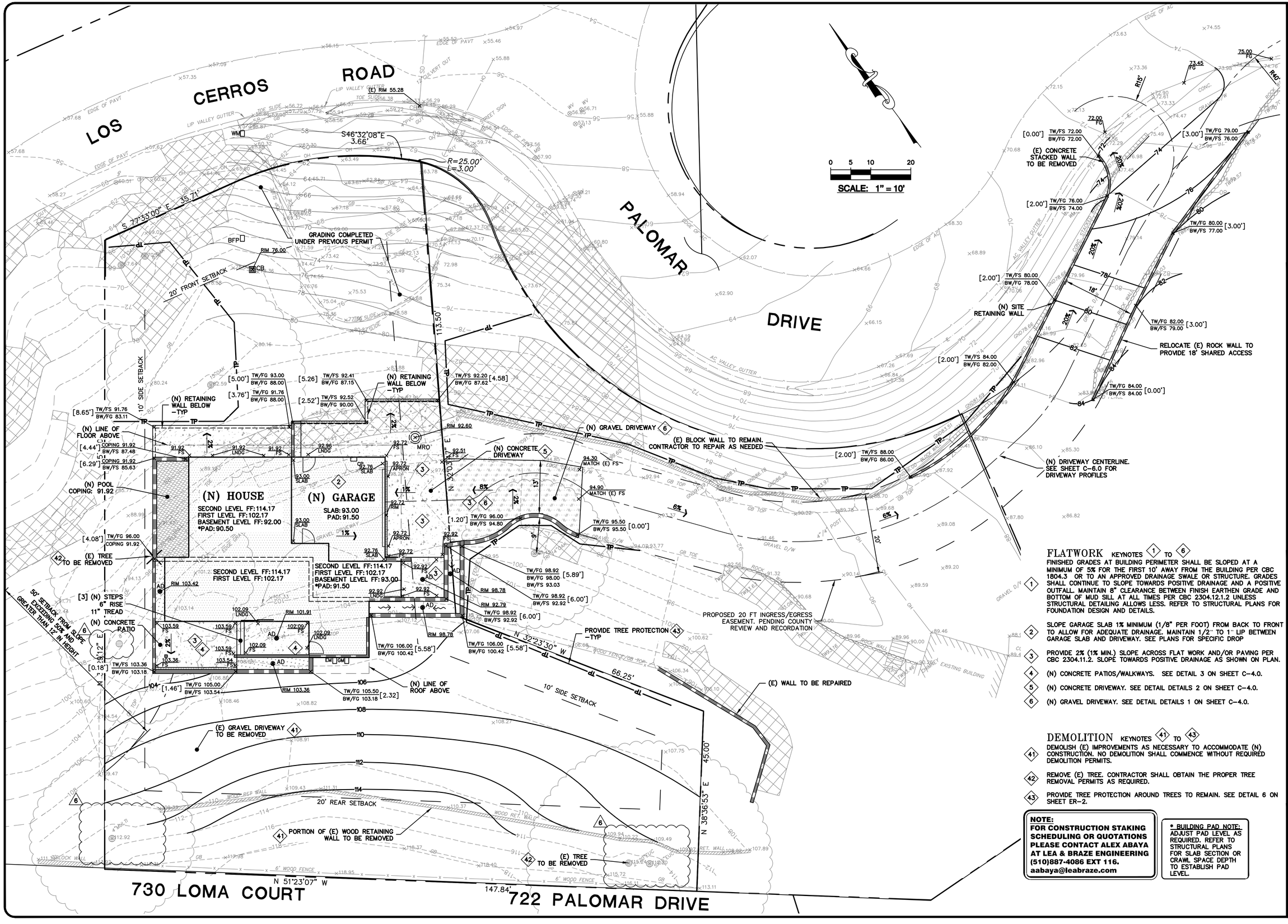
634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA
APN: 051-022-380
SAN MATEO COUNTY

TITLE SHEET

6	PLANCHECK 01-30-23	JOR
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
	REVISIONS	BY

JOB NO:	2200474
DATE:	07-17-20
SCALE:	1"=20'
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	C-1.0

1 OF 9 SHEETS



FLATWORK KEYNOTES 1 TO 6

FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.3 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 8" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.12.1.2 UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.

2 SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP

3 PROVIDE 2% (1% MIN.) SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 2304.11.2. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.

4 (N) CONCRETE PATIOS/WALKWAYS. SEE DETAIL 3 ON SHEET C-4.0.

5 (N) CONCRETE DRIVEWAY. SEE DETAIL DETAILS 2 ON SHEET C-4.0.

6 (N) GRAVEL DRIVEWAY. SEE DETAIL DETAILS 1 ON SHEET C-4.0.

DEMOLITION KEYNOTES 41 TO 43

41 DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.

42 REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.

43 PROVIDE TREE PROTECTION AROUND TREES TO REMAIN. SEE DETAIL 6 ON SHEET ER-2.

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

*** BUILDING PAD NOTE:** ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

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WWW.LEABRAZE.COM

634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA

APN: 051-022-380

SAN MATEO COUNTY

GRADING & DRAINAGE PLAN

REVISIONS	BY
6 PLANCHECK 01-30-23	JOR
5 PLANCHECK 05-24-22	JOR
4 PLANCHECK 04-07-22	JOR
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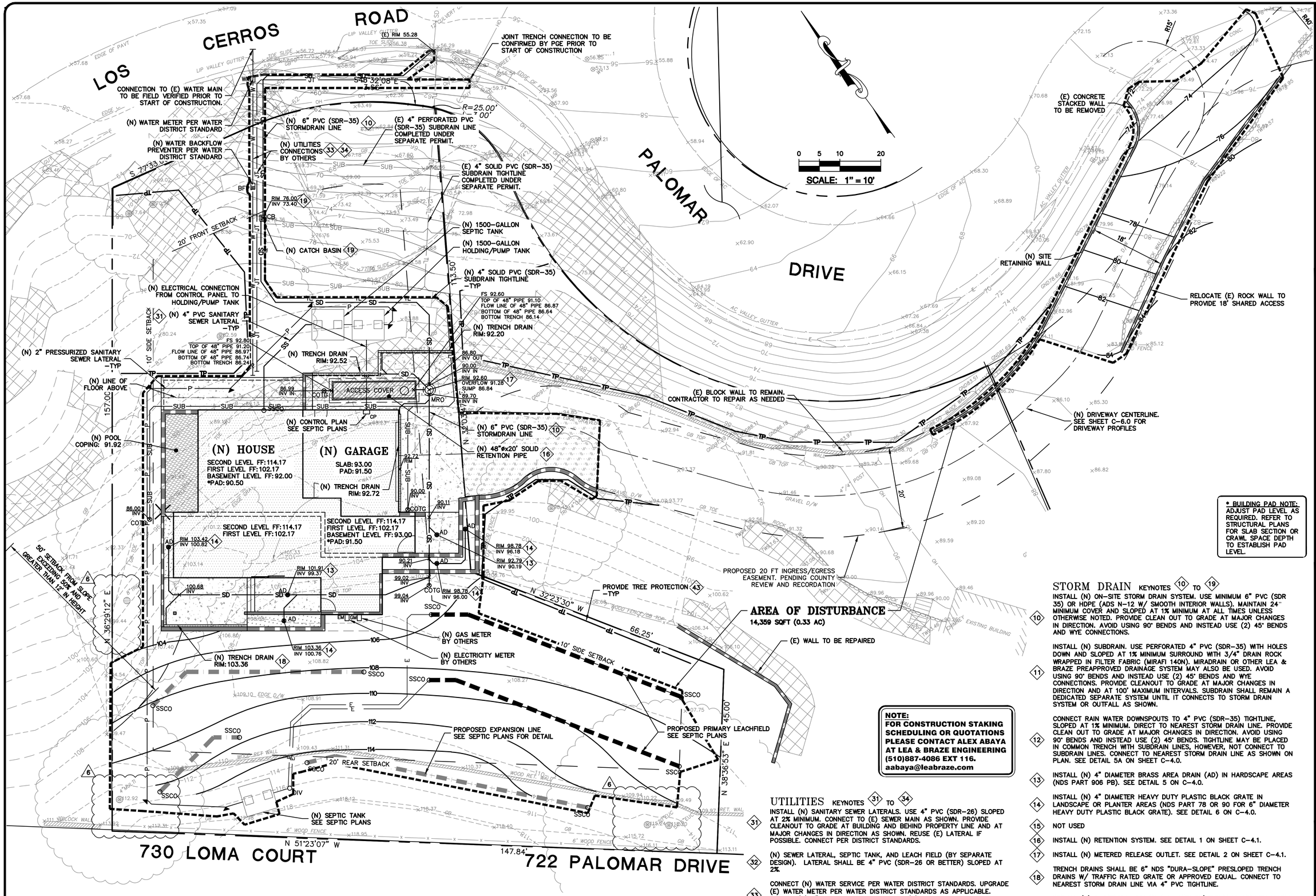
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	C-2.0

2 OF 9 SHEETS



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UTILITIES KEYNOTES 31 TO 34

31 INSTALL (N) SANITARY SEWER LATERALS. USE 4" PVC (SDR-26) SLOPED AT 2% MINIMUM. CONNECT TO (E) SEWER MAIN AS SHOWN. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. REUSE (E) LATERAL IF POSSIBLE. CONNECT PER DISTRICT STANDARDS.

32 (N) SEWER LATERAL, SEPTIC TANK, AND LEACH FIELD (BY SEPARATE DESIGN). LATERAL SHALL BE 4" PVC (SDR-26 OR BETTER) SLOPED AT 2%.

33 CONNECT (N) WATER SERVICE PER WATER DISTRICT STANDARDS. UPGRADE (E) WATER METER PER WATER DISTRICT STANDARDS AS APPLICABLE. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.

34 INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.

STORM DRAIN KEYNOTES 10 TO 19

10 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 6" PVC (SDR 35) OR HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE CLEAN OUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

11 INSTALL (N) SUBDRAIN. USE PERFORATED 4" PVC (SDR-35) WITH HOLES DOWN AND SLOPED AT 1% MINIMUM SURROUND WITH 3/4" DRAIN ROCK WRAPPED IN FILTER FABRIC (MIRAFI 140N). MIRADRAIN OR OTHER LEA & BRAZE PREAPPROVED DRAINAGE SYSTEM MAY ALSO BE USED. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION AND AT 100' MAXIMUM INTERVALS. SUBDRAIN SHALL REMAIN A DEDICATED SEPARATE SYSTEM UNTIL IT CONNECTS TO STORM DRAIN SYSTEM OR OUTFALL AS SHOWN.

12 CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM. DIRECT TO NEAREST STORM DRAIN LINE. PROVIDE CLEAN OUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES, HOWEVER, NOT CONNECT TO SUBDRAIN LINES. CONNECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLAN. SEE DETAIL 5A ON SHEET C-4.0.

13 INSTALL (N) 4" DIAMETER BRASS AREA DRAIN (AD) IN HARDSCAPE AREAS (NDS PART 906 PB). SEE DETAIL 5 ON C-4.0.

14 INSTALL (N) 4" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE IN LANDSCAPE OR PLANTER AREAS (NDS PART 78 OR 90 FOR 6" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE). SEE DETAIL 6 ON C-4.0.

15 NOT USED

16 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 1 ON SHEET C-4.1.

17 INSTALL (N) METERED RELEASE OUTLET. SEE DETAIL 2 ON SHEET C-4.1.

18 TRENCH DRAINS SHALL BE 6" NDS "DURA-SLOPE" PRESLOPED TRENCH DRAINS W/ TRAFFIC RATED GRATE OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 4" PVC TIGHTLINE.

19 INSTALL (N) "CHRISTY V-24" CATCH BASIN W/ CONCRETE BOTTOM FLUSH W/ LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2 AGGREGATE BASE MATERIAL. SEE DETAIL 8 ON SHEET C-4.0.

*** BUILDING PAD NOTE:** ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

REGISTERED PROFESSIONAL ENGINEER JAMES TORY No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA

SAN MATEO COUNTY APN: 051-022-380

UTILITY PLAN

REVISIONS	BY
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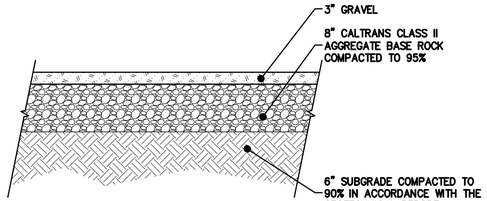
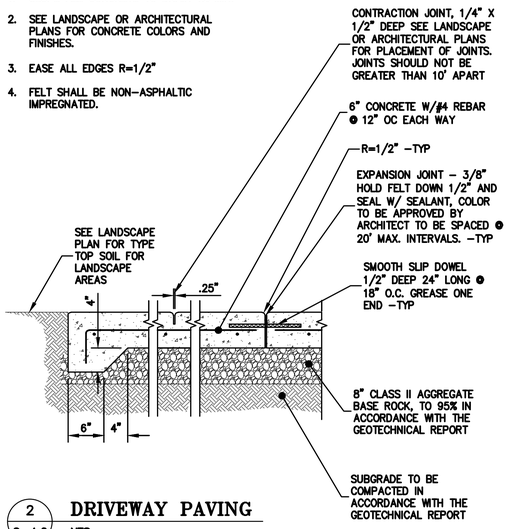
3 OF 9 SHEETS



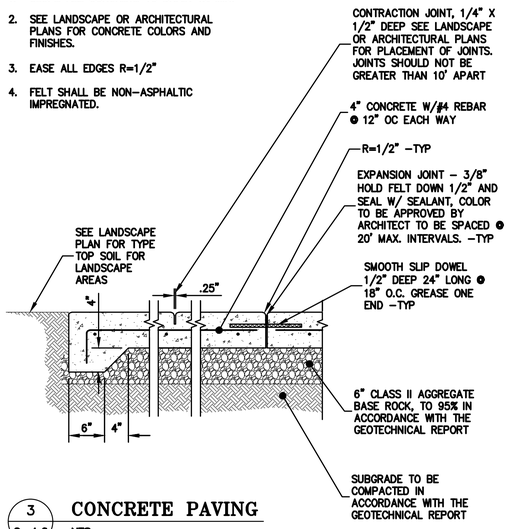
1 C-4.0 **GRAVEL DRIVEWAY SECTION**
NTS

NOTES:
1. SLOPE ALL CONCRETE TO DRAIN 1% MIN.
2. SEE LANDSCAPE OR ARCHITECTURAL PLANS FOR CONCRETE COLORS AND FINISHES.
3. EASE ALL EDGES R=1/2"
4. FELT SHALL BE NON-ASPHALTIC IMPREGNATED.

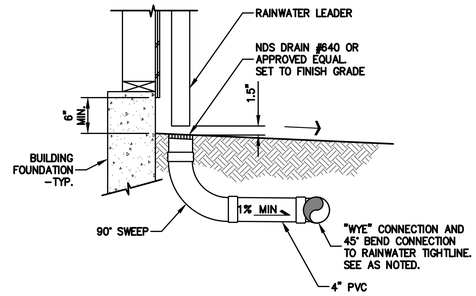


2 C-4.0 **DRIVEWAY PAVING**
NTS

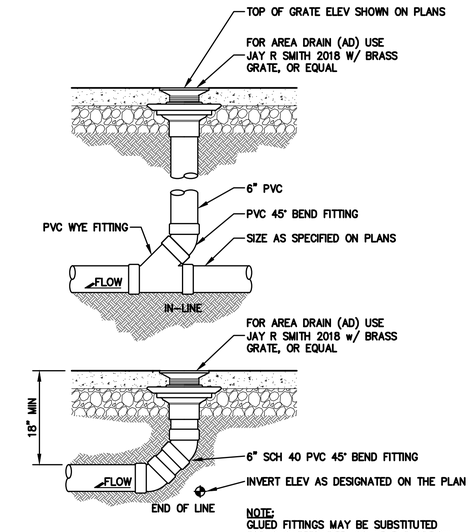
NOTES:
1. SLOPE ALL CONCRETE TO DRAIN 1% MIN.
2. SEE LANDSCAPE OR ARCHITECTURAL PLANS FOR CONCRETE COLORS AND FINISHES.
3. EASE ALL EDGES R=1/2"
4. FELT SHALL BE NON-ASPHALTIC IMPREGNATED.



3 C-4.0 **CONCRETE PAVING**
NTS

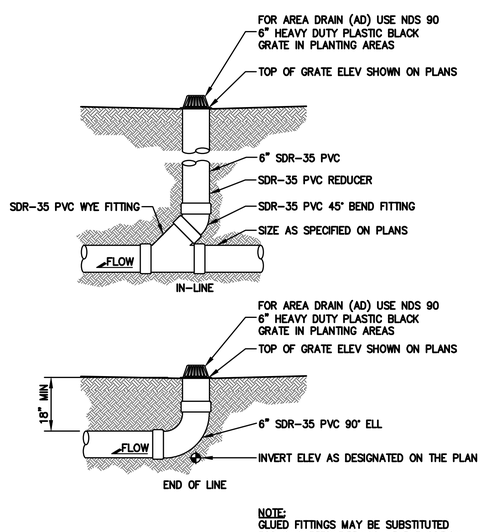


4 C-4.0 **RAIN WATER LEADER TO TIGHTLINE CONNECTION**
NTS



NOTE:
GLUED FITTINGS MAY BE SUBSTITUTED FOR GASKETED FITTINGS AT THE OPTION OF THE INSTALLATION CONTRACTOR.

5 C-4.0 **FLATWORK DRAIN**
NTS



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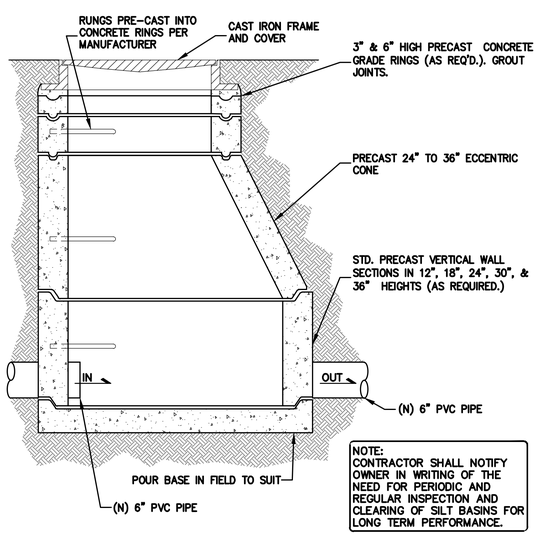
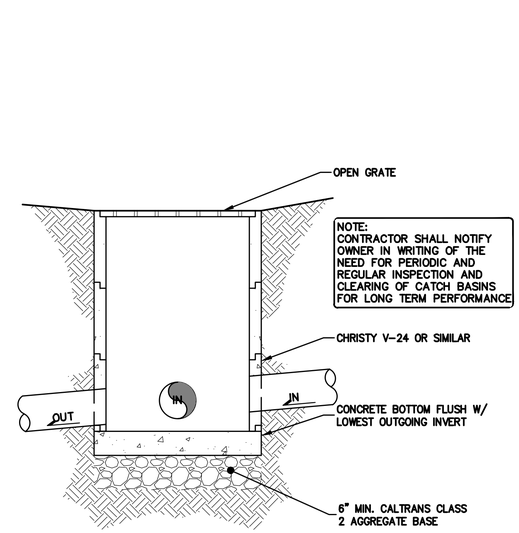
GLUED FITTINGS MAY BE SUBSTITUTED FOR GASKETED FITTINGS AT THE OPTION OF THE INSTALLATION CONTRACTOR.

6 C-4.0 **AREA DRAIN**
NTS



NOTE:
CONTRACTOR SHALL NOTIFY OWNER IN WRITING OF THE NEED FOR PERIODIC AND REGULAR INSPECTION AND CLEARING OF SILT BASINS FOR LONG TERM PERFORMANCE.

7 C-4.0 **STORM DRAIN MANHOLE**
NTS



8 C-4.0 **CATCH BASIN**
NTS

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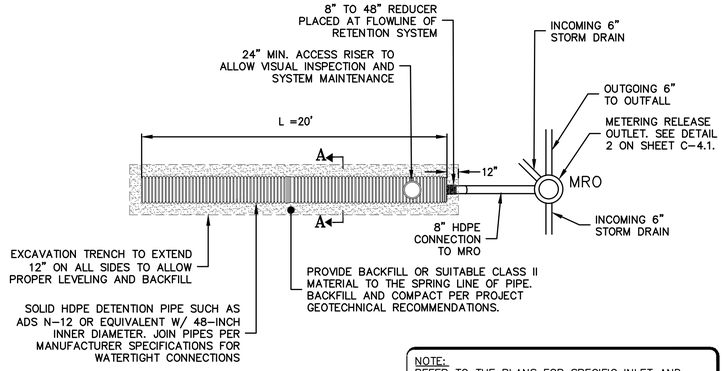
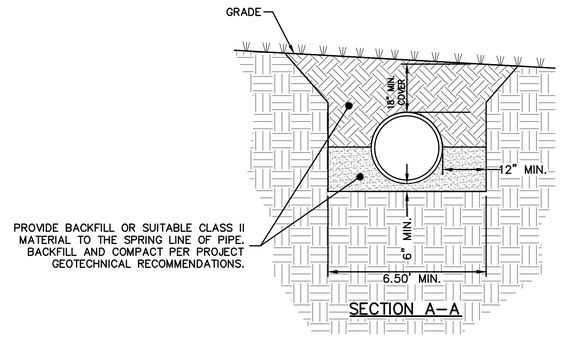


PLAN VIEW



SECTION A-A

NOTE:
REFER TO THE PLANS FOR SPECIFIC INLET AND OUTLET LOCATIONS.
REFER TO THE PLANS FOR SPECIFIC ACCESS COVER LOCATIONS.

STORAGE PIPE NOMINAL I.D.	NOMINAL O.D.	MIN. SIDE COVER
48" (1200 MM)	54" (1372 MM)	12" (292 MM)

1 C-4.1 **DETENTION SYSTEM DETAIL**
NTS

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.

2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.

3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.

4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.

5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

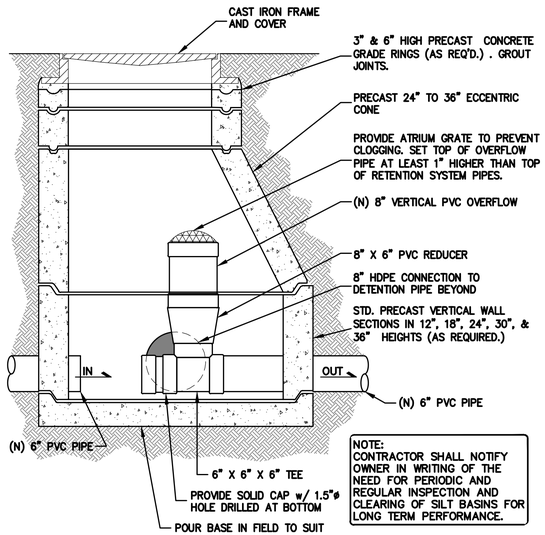
6. BEDDING: SUITABLE MATERIAL SHALL BE SAND OR CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 8" (150mm) FOR 30"-60" (750mm-900mm) COMPACTED TO 90% SPD.

7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE SAND OR CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 18" FROM TOP OF PIPE TO GROUND SURFACE, COMPACT AS RECOMMENDED BY THE SOILS ENGINEER. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 18" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

9. CONECTIONS: ALL CONNECTIONS FOR EACH SEGMENT SHALL BE WATER TIGHT.

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.



2 C-4.1 **METERED RELEASE OUTLET**
NTS

REGISTERED PROFESSIONAL ENGINEER
JAMES TOSE
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
MAIN OFFICE:
2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
(510) 887-4086
REGIONAL OFFICES:
ROSEVILLE
DUBLIN
SAN JOSE
WWW.LEABRAZE.COM

634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA

APN: 051-022-380

SAN MATEO COUNTY

DETAILS

6	PLANCHECK 01-30-23	JOR
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
	REVISIONS	BY

JOB NO:	2200474
DATE:	07-17-20
SCALE:	NTS
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	C-4.1

5 OF 9 SHEETS

GENERAL NOTES

ALL GENERAL NOTES, SHEET NOTES, AND LEGEND NOTES FOUND IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT. IF INCONSISTENCIES ARE FOUND IN THE VARIOUS NOTATIONS, NOTIFY THE ENGINEER IMMEDIATELY IN WRITING REQUESTING CLARIFICATION.

THESE DRAWINGS AND THEIR CONTENT ARE AND SHALL REMAIN THE PROPERTY OF LEA AND BRAZE ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY ANY PERSONS ON OTHER PROJECTS OR EXTENSIONS OF THE PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ENGINEER.

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK INCLUDING, BUT NOT LIMITED TO, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, CALTRANS STANDARDS AND SPECIFICATIONS, AND ALL APPLICABLE STATE AND/OR LOCAL CODES AND/OR LEGISLATION.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO CHECK AND VERIFY ALL CONDITIONS, DIMENSIONS, LINES AND LEVELS INDICATED. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED. SHOULD THERE BE ANY DISCREPANCIES, IMMEDIATELY NOTIFY THE ENGINEER FOR CORRECTION OR ADJUSTMENT THE EVENT OF FAILURE TO DO SO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERROR.

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE JOB BY EACH SUBCONTRACTOR BEFORE HE/SHE BEGINS HIS/HER WORK. ANY ERRORS, OMISSION, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/CONTRACTOR BEFORE CONSTRUCTION BEGINS.

COMMENCEMENT OF WORK BY THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS, OR EXISTING ON SITE, WHICH COULD AFFECT THEIR WORK.

WORK SEQUENCE

IN THE EVENT ANY SPECIAL SEQUENCING OF THE WORK IS REQUIRED BY THE OWNER OR THE CONTRACTOR, THE CONTRACTOR SHALL ARRANGE A CONFERENCE BEFORE ANY SUCH WORK IS BEGUN.

SITE EXAMINATION: THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING HIS/HER WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTIONS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR EXPENSES DUE TO HIS/HER NEGLECT TO EXAMINE, OR FAILURE TO DISCOVER, CONDITIONS WHICH AFFECT HIS/HER WORK.

LEA AND BRAZE ENGINEERING, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF LEA AND BRAZE ENGINEERING, INC. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD HARMLESS LEA AND BRAZE ENGINEERING, INC.

CONSTRUCTION IS ALWAYS LESS THAN PERFECT SINCE PROJECTS REQUIRE THE COORDINATION AND INSTALLATION OF MANY INDIVIDUAL COMPONENTS BY VARIOUS CONSTRUCTION INDUSTRY TRADES. THESE DOCUMENTS CANNOT PORTRAY ALL COMPONENTS OR ASSEMBLIES EXACTLY. IT IS THE INTENTION OF THESE ENGINEERING DOCUMENTS THAT THEY REPRESENT A REASONABLE STANDARD OF CARE IN THEIR CONTENT. IT IS ALSO PRESUMED BY THESE DOCUMENTS THAT CONSTRUCTION REVIEW SERVICES WILL BE PROVIDED BY THE ENGINEER. SHOULD THE OWNER NOT RETAIN THE ENGINEER TO PROVIDE SUCH SERVICES, OR SHOULD HE/SHE RETAIN THE ENGINEER TO PROVIDE ONLY PARTIAL OR LIMITED SERVICES, THEN IT SHALL BE THE OWNER'S AND CONTRACTOR'S RESPONSIBILITY TO FULLY RECOGNIZE AND PROVIDE THAT STANDARD OF CARE.

IF THE OWNER OR CONTRACTOR OBSERVES OR OTHERWISE BECOMES AWARE OF ANY FAULT OR DEFECT IN THE PROJECT OR NONCONFORMANCE WITH THE CONTRACT DOCUMENTS, PROMPT WRITTEN NOTICE THEREOF SHALL BE GIVEN BY THE OWNER AND/OR CONTRACTOR TO THE ENGINEER.

THE ENGINEER SHALL NOT HAVE CONTROL OF OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SITE PROTECTION

PROTECT ALL LANDSCAPING THAT IS TO REMAIN. ANY DAMAGE OR LOSS RESULTING FROM EXCAVATION, GRADING, OR CONSTRUCTION WORK SHALL BE CORRECTED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING SITE UTILITIES AND SHALL COORDINATE THEIR REMOVAL OR MODIFICATIONS (IF ANY) TO AVOID ANY INTERRUPTION OF SERVICE TO ADJACENT AREAS. THE GENERAL CONTRACTOR SHALL INFORM HIM/HERSELF OF MUNICIPAL REGULATIONS AND CARRY OUT HIS/HER WORK IN COMPLIANCE WITH ALL FEDERAL AND STATE REQUIREMENTS TO REDUCE FIRE HAZARDS AND INJURIES TO THE PUBLIC.

STORMWATER POLLUTION PREVENTION NOTES

1) STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

2) CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING SOLID WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENT, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.

3) USE SEDIMENT CONTROL OR FILTRATION TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

4) AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA IN WHICH RUNOFF IS CONTAINED AND TREATED.

5) DELINEATE CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES AND DISCHARGE COURSE WITH FIELD MARKERS.

6) PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OF FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.

7) PERFORM CLEARING AND EARTH MOVING ACTIVITIES DURING DRY WEATHER TO THE MAXIMUM EXTENT PRACTICAL.

8) LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.

9) LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.

10) AVOID TRACKING DIRT OR MATERIALS OFF-SITE; CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS TO THE MAXIMUM EXTENT PRACTICAL.

SUPPLEMENTAL MEASURES

A. THE PHRASE "NO DUMPING - DRAINS TO BAY" OR EQUALLY EFFECTIVE PHRASE MUST BE LABELED ON STORM DRAIN INLETS (BY STENCILING, BRANDING, OR PLAQUES) TO ALERT THE PUBLIC TO THE DESTINATION OF STORM WATER AND TO PREVENT DIRECT DISCHARGE OF POLLUTANTS INTO THE STORM DRAIN.

B. USING FILTRATION MATERIALS ON STORM DRAIN COVERS TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

C. STABILIZING ALL DENUDED AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY FROM OCTOBER 15 AND APRIL 15.

D. REMOVING SPOILS PROMPTLY, AND AVOID STOCKPILING OF FILL MATERIALS, WHEN RAIN IS FORECAST. IF RAIN THREATENS, STOCKPILED SOILS AND OTHER MATERIALS SHALL BE COVERED WITH A TARP OR OTHER WATERPROOF MATERIAL.

E. STORING, HANDLING, AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES SO AS TO AVOID THEIR ENTRY TO THE STORM DRAIN SYSTEMS OR WATER BODY.

F. AVOIDING CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN AN AREA DESIGNATED TO CONTAIN AND TREAT RUNOFF.

GRADING & DRAINAGE NOTES:

1. **SCOPE OF WORK**

THESE SPECIFICATIONS AND APPLICABLE PLANS PERTAIN TO AND INCLUDE ALL SITE GRADING AND EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEARING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, RECOMPACTION PREPARATION FOR SOIL RECEIVING FILL, PAVEMENT, FOUNDATION OF SLABS, EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL, PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPE SHOWN ON THE PROJECT GRADING PLANS.

2. **GENERAL**

A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT BY EARTH INVESTIGATIONS CONSULTANTS; AND THE COUNTY OF SAN MATEO.

B. ALL FILL MATERIALS SHALL BE DENSIFIED SO AS TO PRODUCE A DENSITY NOT LESS THAN 90% RELATIVE COMPACTION BASED UPON ASTM TEST DESIGNATION D1557. FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 3017. THE LOCATION AND FREQUENCY OF THE FIELD DENSITY TEST WILL BE AS DETERMINED BY THE SOIL ENGINEER. THE RESULTS OF THESE TEST AND COMPLIANCE WITH THE SPECIFICATIONS WILL BE THE BASIS UPON WHICH SATISFACTORY COMPLETION OF THE WORK WILL BE JUDGED BY THE SOIL ENGINEER. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED AS SHOWN ON PLANS, BUT NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL THE EARTHWORK IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. NO DEVIATION FROM THESE SPECIFICATIONS SHALL BE MADE EXCEPT UPON WRITTEN APPROVAL BY THE SOILS ENGINEER. BOTH CUT AND FILL AREAS SHALL BE SURFACE COMPLETED TO THE SATISFACTION OF THE SOILS ENGINEER AT THE CONCLUSION OF ALL GRADING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO DOING ANY SITE GRADING AND EARTHWORK INCLUDING CLEARING.

3. **CLEARING AND GRUBBING**

A. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION. ALL EXISTING PUBLIC IMPROVEMENTS SHALL BE PROTECTED. ANY IMPROVEMENTS DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE LOCAL JURISDICTION WITH NO EXTRA COMPENSATION.

B. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ANY SURFACE DEBRIS SHALL BE REMOVED AND DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

C. ALL ABANDONED SEPTIC TANKS AND ANY OTHER SUBSURFACE STRUCTURES EXISTING IN PROPOSED DEVELOPMENT AREAS SHALL BE REMOVED PRIOR TO ANY GRADING OR FILL OPERATION. ALL APPURTENANT DRAIN FIELDS AND OTHER CONNECTING LINES MUST ALSO BE TOTALLY REMOVED.

D. ALL ABANDONED UNDERGROUND IRRIGATION OR UTILITY LINES SHALL BE REMOVED OR DEMOLISHED. THE APPROPRIATE FINAL DISPOSITION OF SUCH LINES DEPEND UPON THEIR DEPTH AND LOCATION AND THE METHOD OF REMOVAL OR DEMOLITION SHALL BE DETERMINED BY THE SOILS ENGINEER. ONE OF THE FOLLOWING METHODS WILL BE USED:

(1) EXCAVATE AND TOTALLY REMOVE THE UTILITY LINE FROM THE TRENCH.

(2) EXCAVATE AND CRUSH THE UTILITY LINE IN THE TRENCH.

(3) CAP THE ENDS OF THE UTILITY LINE WITH CONCRETE TO PREVENT THE ENTRANCE OF WATER. THE LOCATIONS AT WHICH THE UTILITY LINE WILL BE CAPPED WILL BE DETERMINED BY THE UTILITY DISTRICT ENGINEER. THE LENGTH OF THE CAP SHALL NOT BE LESS THAN FIVE FEET, AND THE CONCRETED MIX EMPLOYED SHALL HAVE MINIMUM SHRINKAGE.

4. **SITE PREPARATION AND STRIPPING**

A. ALL SURFACE ORGANICS SHALL BE STRIPPED AND REMOVED FROM BUILDING PADS, AREAS TO RECEIVE COMPACTED FILL AND PAVEMENT AREAS.

B. UPON THE COMPLETION OF THE ORGANIC STRIPPING OPERATION, THE GROUND SURFACE (NATIVE SOIL SUBGRADE) OVER THE ENTIRE AREA OF ALL BUILDING PADS, STREET AND PAVEMENT AREAS AND ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE PLOWED OR SCARIFIED UNTIL THE SURFACE IS FREE OF RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH MAY INHIBIT UNIFORM SOIL COMPACTION. THE GROUND SURFACE SHALL THEN BE DISCED OR BLADED TO A DEPTH OF AT LEAST 6 INCHES. UPON ENGINEER'S SATISFACTION, THE NEW SURFACE SHALL BE WATER CONDITIONED AND RECOMPACTED PER REQUIREMENTS FOR COMPACTING FILL MATERIAL.

5. **EXCAVATION**

A. UPON COMPLETION OF THE CLEARING AND GRUBBING, SITE PREPARATION AND STRIPPING, THE CONTRACTOR SHALL MAKE EXCAVATIONS TO LINES AND GRADES NOTED ON THE PLAN. WHERE REQUIRED BY THE SOILS ENGINEER, UNACCEPTABLE NATIVE SOILS OR UNENGINEERED FILL SHALL BE OVER EXCAVATED BELOW THE DESIGN GRADE. SEE PROJECT SOILS REPORT FOR DISCUSSION OF OVER EXCAVATION OF THE UNACCEPTABLE MATERIAL. RESULTING GROUND LINE SHALL BE SCARIFIED, MOISTURE-CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE.

B. EXCAVATED MATERIALS SUITABLE FOR COMPACTED FILL MATERIAL SHALL BE UTILIZED IN MAKING THE REQUIRED COMPACTED FILLS. THOSE NATIVE MATERIALS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL BE DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

6. **PLACING, SPREADING AND COMPACTING FILL MATERIAL**

A. FILL MATERIALS

THE MATERIALS PROPOSED FOR USE AS COMPACTED FILL SHALL BE APPROVED BY THE SOILS ENGINEER BEFORE COMMENCEMENT OF GRADING OPERATIONS. THE NATIVE MATERIAL IS CONSIDERED SUITABLE FOR FILL; HOWEVER, ANY NATIVE MATERIAL DESIGNATED UNSUITABLE BY THE SOILS ENGINEER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. ANY IMPORTED MATERIAL SHALL BE APPROVED FOR USE BY THE SOILS ENGINEER, IN WRITING, BEFORE BEING IMPORTED TO THE SITE AND SHALL POSSESS SUFFICIENT FINES TO PROVIDE A COMPETENT SOIL MATRIX AND SHALL BE FREE OF VEGETATIVE AND ORGANIC MATTER AND OTHER DELETERIOUS MATERIALS. ALL FILL VOIDS SHALL BE FILLED AND PROPERLY COMPACTED. NO ROCKS LARGER THAN THREE INCHES IN DIAMETER SHALL BE PERMITTED.

B. FILL CONSTRUCTION

THE SOILS ENGINEER SHALL APPROVE THE NATIVE SOIL SUBGRADE BEFORE PLACEMENT OF ANY COMPACTED FILL MATERIAL. UNACCEPTABLE NATIVE SOIL SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER. THE RESULTING GROUND LINE SHALL BE SCARIFIED MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE. GROUND PREPARATION SHALL BE FOLLOWED CLOSELY BY FILL PLACEMENT TO PREVENT DRYING OUT OF THE SUBSOIL BEFORE PLACEMENT OF THE FILL.

THE APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM HORIZONTAL LAYERS NO THICKER THAN 8" IN LOOSE THICKNESS. LAYERS SHALL BE SPREAD EVENLY AND SHALL BE THOROUGHLY BLADE MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. THE SCARIFIED SUBGRADE AND FILL MATERIAL SHALL BE MOISTURE CONDITIONED TO AT LEAST OPTIMUM MOISTURE. WHEN THE MOISTURE CONTENT OF THE FILL IS BELOW THAT SPECIFIED, WATER SHALL BE ADDED UNTIL THE MOISTURE DURING THE COMPACTION PROCESS. WHEN THE MOISTURE CONTENT OF THE FILL IS ABOVE THAT SPECIFIED, THE FILL MATERIAL SHALL BE AERATED BY BLADING OR OTHER SATISFACTORY METHODS UNTIL THE MOISTURE CONTENT IS AS SPECIFIED.

AFTER EACH LAYER HAS BEEN PLACED, MIXED, SPREAD EVENLY AND MOISTURE CONDITIONED, IT SHALL BE COMPACTED TO AT LEAST THE SPECIFIED DENSITY.

THE FILL OPERATION SHALL BE CONTINUED IN COMPACTED LAYERS AS SPECIFIED ABOVE UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED SLOPES AND GRADES AS SHOWN ON THE PLANS. NO LAYER SHALL BE ALLOWED TO DRY OUT BEFORE SUBSEQUENT LAYERS ARE PLACED.

COMPACTION EQUIPMENT SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA UNTIL THE REQUIRED MINIMUM DENSITY HAS BEEN OBTAINED.

7. **CUT OR FILL SLOPES**

ALL CONSTRUCTED SLOPES, BOTH CUT AND FILL, SHALL BE NO STEEPER THAN 2 TO 1 (HORIZONTAL TO VERTICAL). DURING THE GRADING OPERATION, COMPACTED FILL SLOPES SHALL BE OVERFILLED BY AT LEAST ONE FOOT HORIZONTALLY AT THE COMPLETION OF THE GRADING OPERATIONS, THE EXCESS FILL EXISTING ON THE SLOPES SHALL BE BLADED OFF TO CREATE THE FINISHED SLOPE EMBANKMENT. ALL CUT AND FILL SLOPES SHALL BE TRACK WALKED AFTER BEING BROUGHT TO FINISH GRADE AND THEN BE PLANTED WITH EROSION CONTROL SLOPE PLANTING. THE SOILS ENGINEER SHALL REVIEW ALL CUT SLOPES TO DETERMINE IF ANY ADVERSE GEOLOGIC CONDITIONS ARE EXPOSED. IF SUCH CONDITIONS DO OCCUR, THE SOILS ENGINEER SHALL RECOMMEND THE APPROPRIATE MITIGATION MEASURES AT THE TIME OF THEIR DETECTION.

8. **SEASONAL LIMITS AND DRAINAGE CONTROL**

FILL MATERIALS SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNSUITABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS INTERRUPTED FOR ANY REASON THE FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TEST PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONDITIONS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED. ALL EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. ALL EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE KEPT DRY.

9. **DUST CONTROL**

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY FOR THE ALLEVIATION OR PREVENTION OF ANY DUST NUISANCE ON OR ABOUT THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE. THE CONTRACTOR SHALL ASSUME ALL LIABILITY INCLUDING COURT COST OF CO-DEFENDANTS FOR ALL CLAIMS RELATED TO DUST OR WIND-BLOWN MATERIALS ATTRIBUTABLE TO HIS WORK. COST FOR THIS ITEM OF WORK IS TO BE INCLUDED IN THE EXCAVATION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

10. **INDEMNITY**

THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER, THE OWNER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

11. **SAFETY**

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

12. **GUARANTEE**

NEITHER THE FINAL PAYMENT, NOR THE PROVISIONS IN THE CONTRACT, NOR PARTIAL, NOR ENTIRE USE OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT OR RELIEVES THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP.

THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THERE FROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

13. **TRENCH BACKFILL**

EITHER THE ON-SITE INORGANIC SOIL OR APPROVED IMPORTED SOIL MAY BE USED AS TRENCH BACKFILL. THE BACKFILL MATERIAL SHALL BE MOISTURE CONDITIONED PER THESE SPECIFICATIONS AND SHALL BE PLACED IN LIFTS OF NOT MORE THAN SIX INCHES IN HORIZONTAL UNCOMPACTED LAYERS AND BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 90% RELATIVE COMPACTION. IMPORTED SAND MAY BE USED FOR TRENCH BACKFILL MATERIAL PROVIDED IT IS COMPACTED TO AT LEAST 90% RELATIVE COMPACTION. WATER JETTING ASSOCIATED WITH COMPACTION USING VIBRATORY EQUIPMENT WILL BE PERMITTED ONLY WITH IMPORTED SAND BACKFILL WITH THE APPROVAL OF THE SOILS ENGINEER. ALL PIPES SHALL BE BEDDED WITH SAND EXTENDING FROM THE TRENCH BOTTOM TO TWELVE INCHES ABOVE THE PIPE. SAND BEDDING IS TO BE COMPACTED AS SPECIFIED ABOVE FOR SAND BACKFILL.

14. **EROSION CONTROL**

A. ALL GRADING, EROSION AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE IS SUBJECT TO ALL TERMS AND CONDITIONS OF THE COUNTY GRADING ORDINANCE AND MADE A PART HEREOF BY REFERENCE.

B. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO ANY PUBLICLY OWNED AND MAINTAINED ROAD CAUSED BY THE AFORESAID CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE.

C. THE EROSION CONTROL MEASURES ARE TO BE OPERABLE DURING THE RAINY SEASON, GENERALLY FROM OCTOBER FIRST TO APRIL FIFTEENTH. EROSION CONTROL PLANTING IS TO BE COMPLETED BY OCTOBER FIRST. NO GRADING OR UTILITY TRENCHING SHALL OCCUR BETWEEN OCTOBER FIRST AND APRIL FIFTEENTH UNLESS AUTHORIZED BY THE LOCAL JURISDICTION.

D. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED AND CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE SOILS ENGINEER.

E. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.

F. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON.

G. WHEN NO LONGER NECESSARY AND PRIOR TO FINAL ACCEPTANCE OF DEVELOPMENT, SEDIMENT BASINS SHALL BE REMOVED OR OTHERWISE DEACTIVATED AS REQUIRED BY THE LOCAL JURISDICTION.

H. A CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ANY POINT OF EGRESS FROM THE SITE TO ROADWAY. A CONSTRUCTION ENTRANCE SHOULD BE COMPOSED OF COARSE DRAIN ROCK (2" TO 3") MINIMUM DIAMETER) AT LEAST EIGHT INCHES THICK BY FIFTY (50) FEET LONG BY TWENTY (20) FEET WIDE UNLESS SHOWN OTHERWISE ON PLAN AND SHALL BE MAINTAINED UNTIL THE SITE IS PAVED.

I. ALL AREAS SPECIFIED FOR HYDROSEEDING SHALL BE NOZZLE PLANTED WITH STABILIZATION MATERIAL CONSISTING OF FIBER, SEED, FERTILIZER AND WATER, MIXED AND APPLIED IN THE FOLLOWING PROPORTIONS:

FIBER, 2000 LBS/ACRE
SEED, 200 LBS/ACRE (SEE NOTE J, BELOW)
FERTILIZER (11-8-4), 500 LBS/ACRE
WATER, AS REQUIRED FOR APPLICATION

J. SEED MIX SHALL BE PER CALTRANS STANDARDS.

K. WATER UTILIZED IN THE STABILIZATION MATERIAL SHALL BE OF SUCH QUALITY THAT IT WILL PROMOTE GERMINATION AND STIMULATE GROWTH OF PLANTS. IT SHALL BE FREE OF POLLUTANT MATERIALS AND WEED SEED.

L. HYDROSEEDING SHALL CONFORM TO THE PROVISIONS OF SECTION 20, EROSION CONTROL AND HIGHWAY PLANTING", OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED.

M. A DISPERSING AGENT MAY BE ADDED TO THE HYDROSEEDING MATERIAL, PROVIDED THAT THE CONTRACTOR FURNISHES SUITABLE EVIDENCE THAT THE ADDITIVE WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE SEEDING MIXTURE.

N. STABILIZATION MATERIALS SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER COMPLETION OF GRADING OPERATIONS AND PRIOR TO THE ONSET OF WINTER RAINS, OR AT SUCH OTHER TIME AS DIRECTED BY THE COUNTY ENGINEER. THE MATERIAL SHALL BE APPLIED BEFORE INSTALLATION OF OTHER LANDSCAPING MATERIALS SUCH AS TREES, SHRUBS AND GROUND COVERS.

O. THE STABILIZATION MATERIAL SHALL BE APPLIED WITHIN 4-HOURS AFTER MIXING. MIXED MATERIAL NOT USED WITHIN 4-HOURS SHALL BE REMOVED FROM THE SITE.

P. THE CONTRACTOR SHALL MAINTAIN THE SOIL STABILIZATION MATERIAL AFTER PLACEMENT. THE COUNTY ENGINEER MAY REQUIRE SPRAY APPLICATION OF WATER OR OTHER MAINTENANCE ACTIVITIES TO ASSURE THE EFFECTIVENESS OF THE STABILIZATION PROCESS. APPLICATION OF WATER SHALL BE ACCOMPLISHED USING NOZZLES THAT PRODUCE A SPRAY THAT DOES NOT CONCENTRATE OR WASH AWAY THE STABILIZATION MATERIALS.

15. **CLEANUP**

THE CONTRACTOR MUST MAINTAIN THE SITE CLEAN, SAFE AND IN USABLE CONDITION. ANY SPILLS OF SOIL, ROCK OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE BY THE CONTRACTOR DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. COST FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE EXCAVATION AND COMPACTION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

NOTE:
THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.

REGISTERED PROFESSIONAL ENGINEER JAMES TOBY No. 63127 CIVIL STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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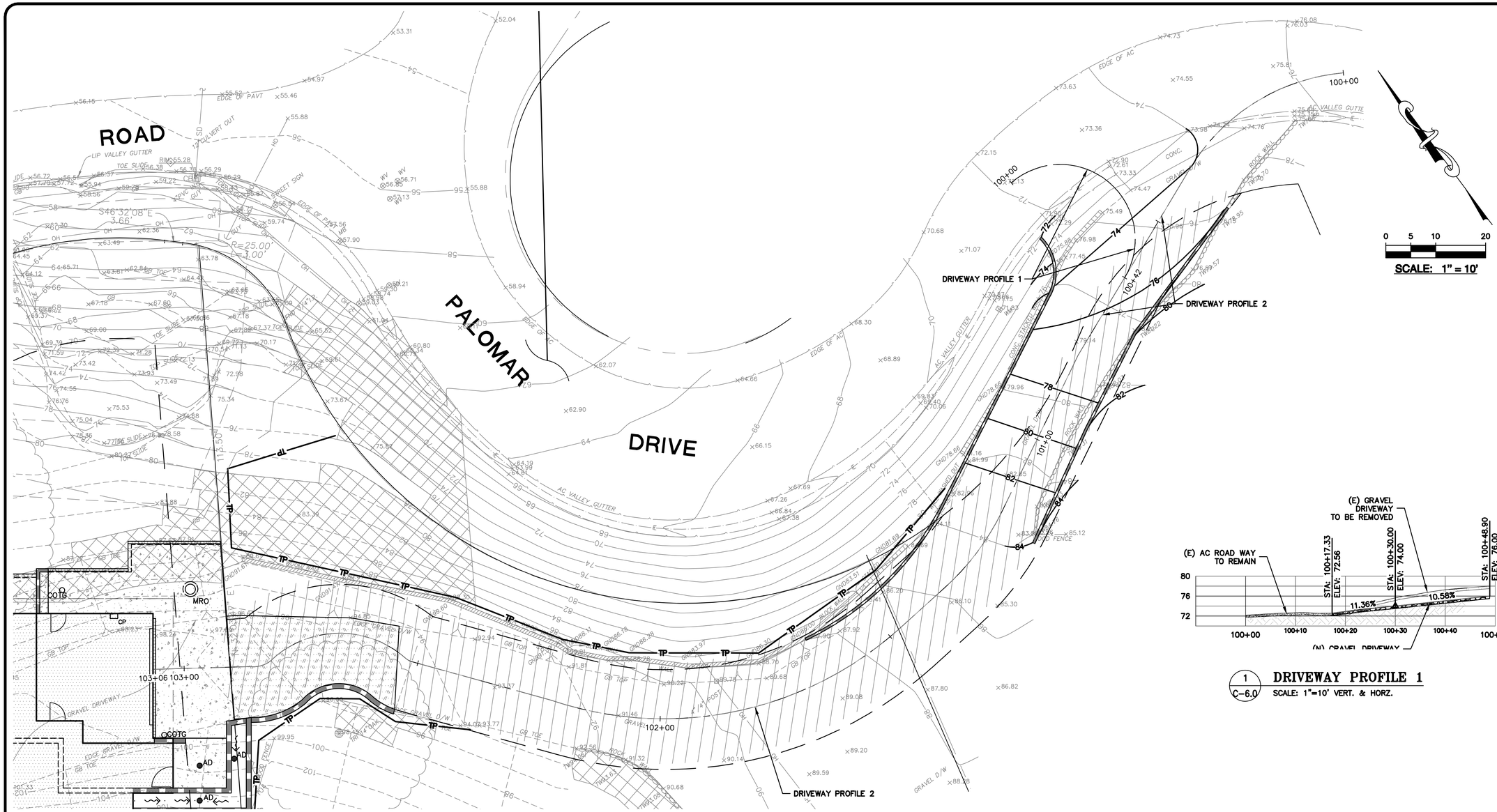
634 PALOMAR DRIVE
REDWOOD CITY, CALIFORNIA
APN: 051-022-380
SAN MATEO COUNTY

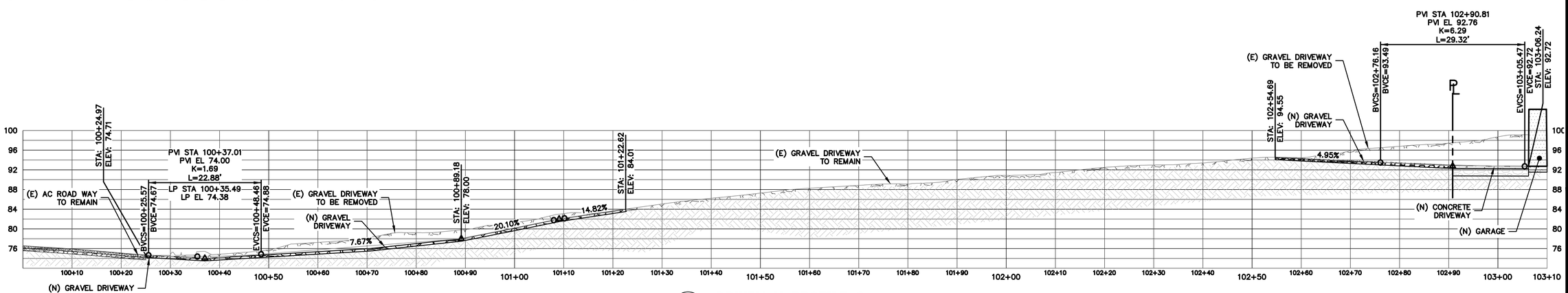
GRADING SPECIFICATIONS

REVISIONS	BY
6 PLANCHECK 01-30-23	JOR
5 PLANCHECK 05-24-22	JOR
4 PLANCHECK 04-07-22	JOR
3 PLANCHECK 11-25-21	JOR

JOB NO:	2200474
DATE:	07-17-20
SCALE:	NO SCALE
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	C-5.0



1 C-6.0 **DRIVEWAY PROFILE 1**
SCALE: 1"=10' VERT. & HORZ.



2 C-6.0 **DRIVEWAY PROFILE 2**
SCALE: 1"=10' VERT. & HORZ.

REGISTERED PROFESSIONAL ENGINEER
JAMES TORY
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SAN MATEO COUNTY

DRIVEWAY PROFILE

6	PLANCHECK 01-30-23	JOR
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
	REVISIONS	BY

JOB NO:	2200474
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SCALE:	1"=10'
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	C-6.0

7 OF 9 SHEETS

PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

1. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
2. THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
8. ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST.
9. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 1ST THROUGH APRIL 30TH, WHICHEVER IS LONGER.
10. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
13. MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
14. EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 30TH.
15. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 1ST THRU APRIL 30TH, WHICHEVER IS GREATER.
16. PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT("MRP") NPDES PERMIT CAS 612008.
17. THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
18. THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
19. THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
20. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INSPECTION OF ANY WORK ONSITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
21. THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
22. STOCKPILED MATERIALS 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 IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
23. EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAYOR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
24. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND

EROSION CONTROL NOTES CONTINUED:

24. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM,
25. DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
26. SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS,TO PUBLIC OWNED FACILITIES.

EROSION CONTROL MEASURES:

1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1ST TO APRIL 30TH. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 1ST OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
2. SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
3. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
4. ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 1ST, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
7. THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
8. STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURES SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

REFERENCES:

1. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
2. CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

PERIODIC MAINTENANCE:

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
   - A. DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
   - B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
   - C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
   - D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1' FOOT.
   - E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   - F. RILLS AND GULLIES MUST BE REPAIRED.
2. GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.
3. STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
4. SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
5. CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
6. ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION

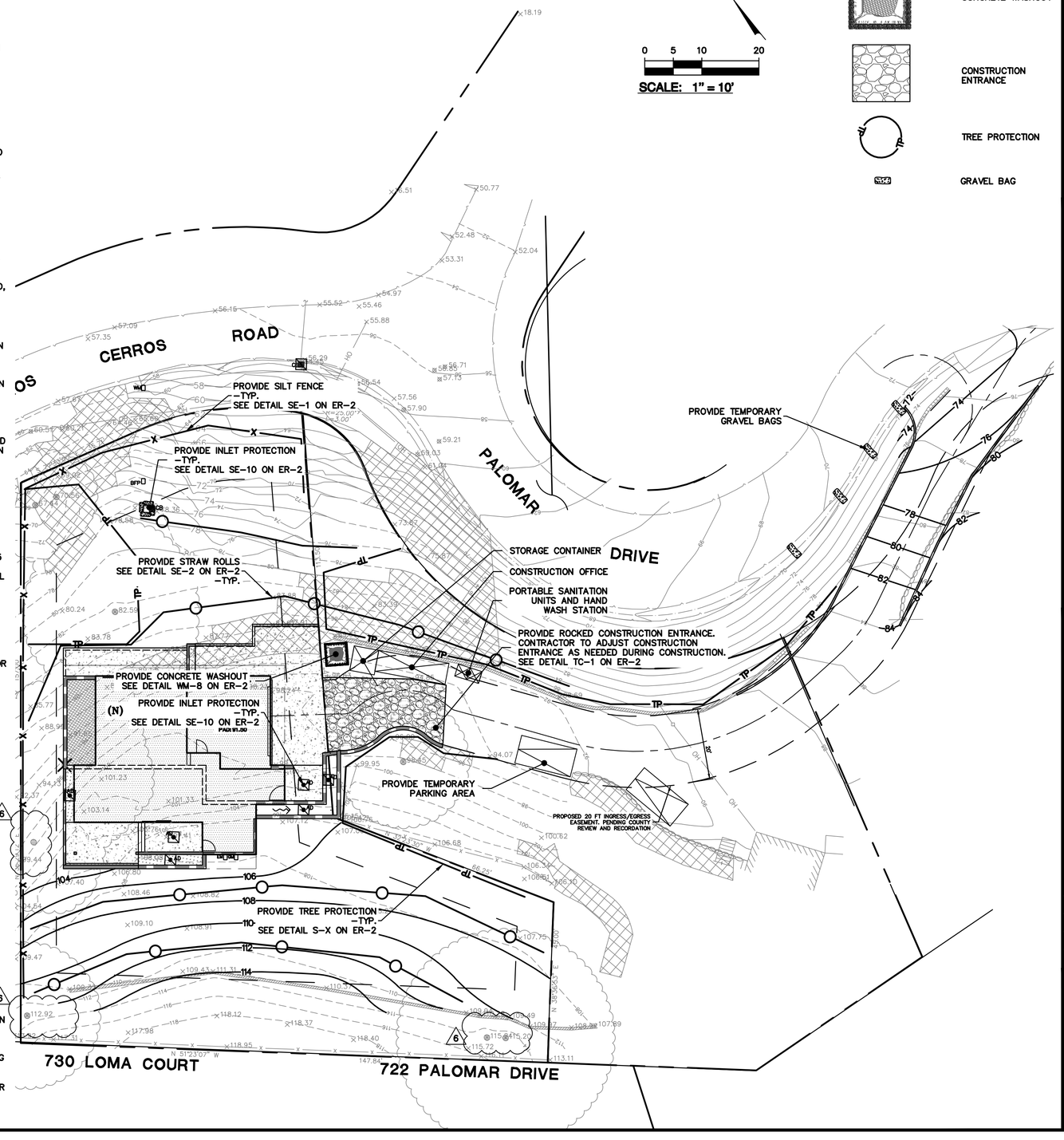
NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP

NOTE:
ACCESS ROAD AND SITE WILL BE RESTORED TO NATURAL CONDITIONS ONCE THE STAGING WORK IS COMPLETED

EROSION CONTROL LEGEND

- INLET PROTECTION
- STRAW ROLL
- SILT FENCE
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE
- TREE PROTECTION
- GRAVEL BAG

SCALE: 1" = 10'



REGISTERED PROFESSIONAL ENGINEER JAMES TOTH No. 63127 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA

APN: 051-022-380

SAN MATEO COUNTY

EROSION CONTROL PLAN

6	PLANCHECK 01-30-23	JOR
5	PLANCHECK 05-24-22	JOR
4	PLANCHECK 04-07-22	JOR
3	PLANCHECK 11-25-21	JOR
	REVISIONS	BY

JOB NO:	2200474
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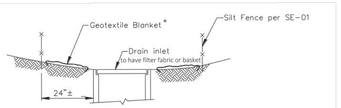
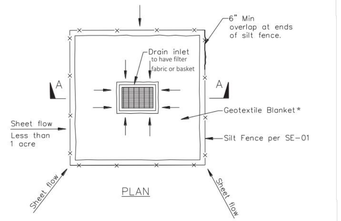
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	ER-1

8 OF 9 SHEETS

Storm Drain Inlet Protection SE-10



SECTION A–A



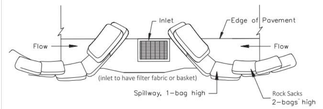
PLAN

DI PROTECTION TYPE 1
NOT TO SCALE

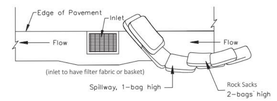
NOTES:

1. For use in areas where grading has been completed and final soil stabilization and seeding are pending.
2. Not applicable in paved areas.
3. Not applicable with concentrated flows.

Storm Drain Inlet Protection SE-10



TYPICAL PROTECTION FOR INLET ON SUMP

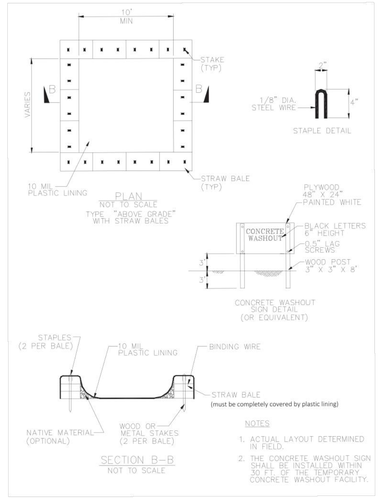


TYPICAL PROTECTION FOR INLET ON GRADE

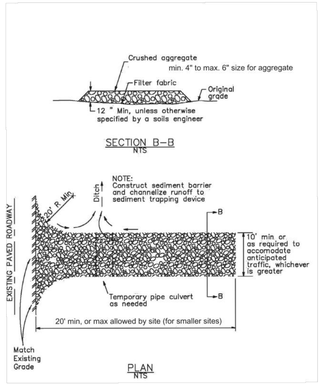
NOTES:

1. Intended for short–term use.
2. Use to inhibit non–storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.
6. Protection can be effective even if it is not immediately adjacent to the inlet provided that the inlet is protected from potential sources of pollution.

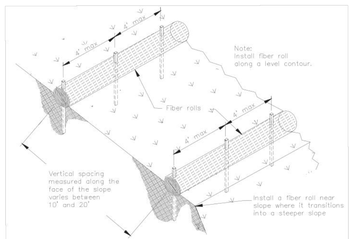
Concrete Waste Management WM-8



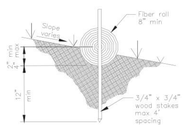
Stabilized Construction Entrance/Exit TC-1



Fiber Rolls SE-5

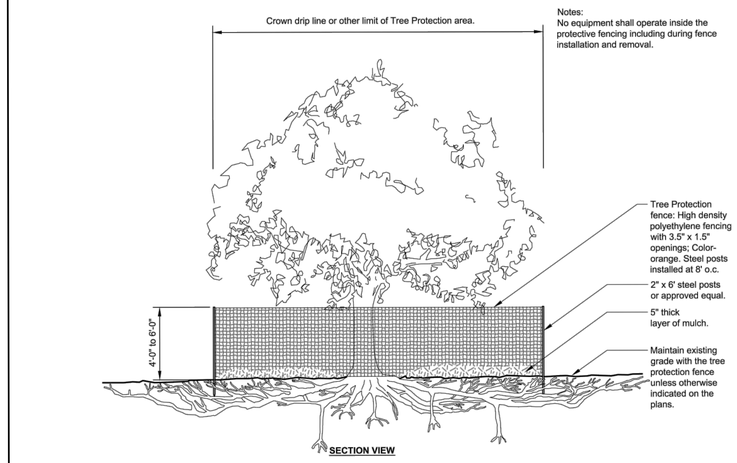


TYPICAL FIBER ROLL INSTALLATION
N.T.S.



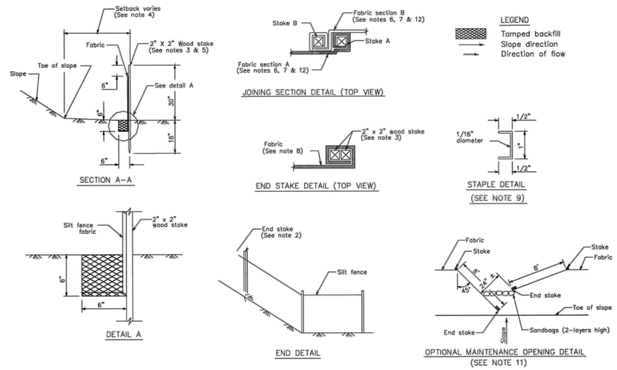
ENTRENCHMENT DETAIL
N.T.S.

NOTES:
If more than one fiber roll is placed in a row, the rolls must be overlapped, not abutted.
Turn the ends of the fiber roll up-slope to prevent runoff from going around the roll.



S-X TREE PROTECTION

SE-1 Silt Fence



JAMES TOBY No. 63127 CIVIL STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS • LAND SURVEYORS
MAIN OFFICE:
2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
(510) 887–4086
REGIONAL OFFICES:
ROSEVILLE
DUBLIN
SAN JOSE
WWW.LEABRAZE.COM

634 PALOMAR DRIVE
REDWOOD CITY,
CALIFORNIA
SAN MATEO COUNTY
APN: 051–022–380

EROSION CONTROL DETAILS

6	PLANCHECK 01–30–23	JOR
5	PLANCHECK 05–24–22	JOR
4	PLANCHECK 04–07–22	JOR
3	PLANCHECK 11–25–21	JOR
	REVISIONS	BY

JOB NO:	2200474
DATE:	07–17–20
SCALE:	AS NOTED
DESIGN BY:	JOR
DRAWN BY:	JOR
SHEET NO:	ER–2

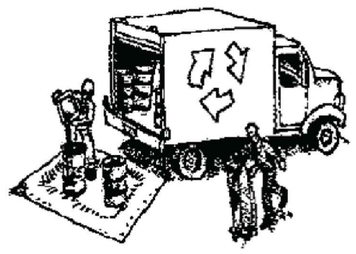
9 OF 9 SHEETS

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

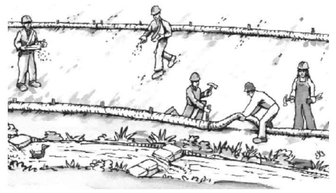
Maintenance and Parking

- ❑ 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.

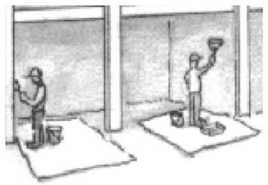
Concrete, Grout & Mortar Application

- ❑ 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!

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
planning.smcgov.org

November 8, 2022

Maurits de Gans, Architect
M Designs Architects
4131 W. El Camino Real Suite 200
Palo Alto, CA 94306

Dear Mr. De Gans:

SUBJECT: Bayside Design Review Recommendation of Approval
634 Palomar Drive, Redwood City
APN 051-022-380; PLN2020-00251

At its October 26, 2022 meeting, Bayside Design Review Committee (Committee) considered your design review recommendation to allow the construction of a new 3-story, 4,282 sq. ft. single-family residence, 315 sq. ft. covered terrace, a 155 sq. ft. deck, and a 554 sq. ft. attached garage, on a 18,122 sq. ft. legal parcel (Lot Line Adjustment recorded on April 26, 1983). The property would be accessed from an improved existing gravel driveway located on 636 Palomar Drive and APN 051-022-250. The project is associated with a Grading Permit involving 880 cubic yards (c.y.) of cut and 90 c.y. of fill; the project involves the removal of 7 significant trees. An Initial Study/ Mitigated Negative Declaration (IS/MND) is available at https://www.smcgov.org/planning/project-ceqa-documents.

The BDRC's review of the project was continued from the August 3, 2022 meeting. During its review, the BDRC stated that the project complies with the design standards, with respect to colors and materials per Section 6565.16.G (Materials and Colors). The proposed colors and materials are consistent with those recommended in the standards and privacy for neighboring parcels is maintained.

All property owners within 300 feet of the subject property were notified a minimum of 10 days before the hearing date. Many emails of correspondence were received and many members of the public spoke at the public hearing. Concerns expressed by the members of the public focused on project design compatibility with existing houses in the neighborhood, privacy impacts, glare from windows, tree removal relative to slope stability, geological/hydrological concerns, and concerns regarding potential stormwater pollution from the proposed septic system. Staff clarified that the BDRC's review is

limited to project compliance with design standards and that other issues are discussed in the IS/MND which will be reviewed by the Planning Commission.

Based on the plans, application forms, and accompanying materials submitted, the BDRC recommended approval of the Design Review Permit, based on the findings and conditions as listed below.

FINDINGS

For the Design Review, Find:

1. After consideration of project plans and public testimony, the Bayside Design Review Committee found that the project, as proposed and conditioned on October 26, 2022, is in compliance with the Design Review Standards based on the site planning and colors and materials which provide compatibility with surrounding residences.

    A. Section 6565.16 G. Materials and Colors - Make varying architectural styles compatible by using similar materials and colors which blend with the natural setting and the immediate area. Avoid the use of building materials and colors which are highly reflective and contrasting by requiring them to blend and harmonize with the natural woodland environment and vegetation of the area. The proposed colors and materials comply with this standard. Reduce the amount glass windows on eastern and northern facades (dining and living room), by eliminating the middle window and replacing it with a wall segment.

    B. Section 6565.16 F. Roofs - Design buildings using primarily pitched roofs. Design buildings with roofs that reflect the predominant architectural styles of the immediate area. Replace low-slope hip roof design with low-slope shed roof. Apply roof changes to all roof elements, including 3rd level roof, and 2nd level roof, all sides as appropriate, for consistent applications around the home. Include overhangs on the uphill side, back side, and upper deck areas with overhangs not to exceed 4 feet.

    C. Section 6565.16 J. Lighting – All overhangs to have soffits with a minimal number of lights.

    D. Section 6565.16 A. Site Planning – Minimize alteration of the natural topography; respect the privacy of neighboring houses and outdoor living areas; and minimize tree removal. Site planning is compliant with this standard and the elevation of building has been kept low to protect views. Please work with your septic system engineer to see if proposed septic system can be modified to save existing trees.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. If and when the project is approved by the Planning Commission, the project shall be constructed in compliance with the plans reviewed by the Bayside Design Review Committee (BDRC) on October 26, 2022. Any changes or revisions to the approved plans shall be submitted for review by the Community Development Director to determine if they are in substantial compliance with the approved plans, prior to being incorporated into the building plans. Adjustments to the design of the project may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Adjustments to the design during the building permit stage may result in the assessment of additional plan resubmittal or revision fees. Alternatively, the Design Review Officer may refer consideration of the adjustments, if they are deemed to be major, to a new BDRC public hearing which requires payment of an additional fee of $1,500.

2. The applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Bayside Design Review Committee:

    a. Reduce the amount glass windows on eastern and northern facades (dining and living room), by eliminating the middle window and replacing it with a wall segment.

    b. Replace low-slope hip roof design with low-slope shed roof. Apply roof changes to all roof elements, including 3rd level roof, and 2nd level roof, all sides as appropriate, for consistent applications around the home. Include overhangs on the uphill side, back side, and upper deck areas with overhangs not to exceed 4 feet.

    c. All overhangs to have soffits with a minimal number of lights.

    d. Minimize tree removal. Please work with your septic system engineer to see if the proposed septic system can be modified to save existing trees.

    e. Suggestion: Prepare a 3D model of the project showing neighboring buildings for the Planning Commission meeting.

3. At the time of building permit application, the applicant shall submit a tree protection plan for any work within tree driplines or adjacent to off-site trees, including the following:

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. Prior to Issuance of a building 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.

4. The approved exterior colors and materials shall be verified prior to final approval of the building permit. The applicant shall provide photographs to the Design Review Officer to verify adherence to this condition prior to a final building permit approval by the Current Planning Section.

5. Prior to the Current Planning Section 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. 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).

6. 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.

7. 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.

8 The applicant shall adhere to all requirements of the Building Inspection Section, the Department of Public Works, and San Mateo County Fire.

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

10. To reduce the impact of construction activities on neighboring properties, comply with the following:

    a. All debris shall be contained on-site; a dumpster or trash bin shall be provided on-site during construction to prevent debris from blowing onto adjacent properties. The applicant shall monitor the site to ensure that trash is picked up and appropriately disposed of daily.

    b. The applicant shall remove all construction equipment from the site upon completion of the use and/or need of each piece of equipment which shall include but not be limited to tractors, back hoes, cement mixers, etc.

    c. The applicant shall ensure that no construction-related vehicles impede through traffic along the right-of-way on Palomar Drive. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on Palomar Drive. There shall be no storage of construction vehicles in the public right-of-way.

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 County Ordinance Code Section 4.88.360).

12. At the building permit application stage, the project shall demonstrate compliance with the Water Efficient Landscape Ordinance (WELO), including requirements for final inspection.

County Arborist

13. At the time of Building permit application, please submit an updated construction entrance detail to include use of Tensar geogrid (or equivalent), per Project Arborist recommendations.

Building Inspection Section

14. A building permit is required.

Drainage Section

15. At the time of the building permit submittal, the project shall be required to comply with the County's "prescriptive" drainage review requirements and provide the following:

    a. Final Drainage Report stamped and signed by a registered Civil Engineer.
    b. Final Grading and Drainage Plan stamped and signed by a registered Civil Engineer depicting a storage and metering stormwater retention system and subdrain system(s) consistent with the requirements in the County's current Drainage Manual.
    c. Final C.3 and C.6 Development Review Checklist.

Geotechnical Section

16. In plans submitted for the building permit application, the project design team shall demonstrate close coordination with the Project Geotechnical Consultant in the design of proposed foundations, retaining walls, and drainage improvements.

17. An updated geotechnical report with supplemental recommendations, design criteria, and supporting data, as appropriate, should be submitted at the time of building permit application for final peer review along with project plans.

18. In plans submitted for the building permit application, project design and final plans should incorporate anticipated geotechnical recommendations and design criteria to mitigate site constraints as identified by the Project Geotechnical Consultant.

San Mateo County Fire

All fire conditions and requirements must be incorporated into your building plans, (see attached conditions) prior to building permit issuance. It is your responsibility to notify your contractor, architect and engineer of these requirements

19. Add Note to plans: New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public

way fronting the building. The letters/numerals for permanent address signs shall be 4 inches in height with a minimum 1/2-inch stroke. Residential address numbers shall be at least six feet above the finished surface of the driveway. Where buildings are located remotely to the public roadway, additional signage at the driveway/roadway entrance leading to the building and/or on each individual building shall be required. This remote signage shall consist of a 6 inch by 18 inch green reflective metal sign with 3 inch reflective Numbers/ Letters similar to Hy-Ko 911 or equivalent. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE).

20. Vegetation Management (LRA) – Add note to plans: A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. This is neither a requirement nor an authorization for the removal of living trees. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 feet above the ground. New trees planted in the defensible space shall be located no closer than 10’ to adjacent trees when fully grown or at maturity. Remove that portion of any existing trees, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5’ of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.

21. Add Note to plans: The building is in a Very High Fire Hazard Severity Zone and will require a Class A roof.

22. Add Note to plans: Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. As per the California Building Code, and State Fire Marshal regulations, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hard wired, interconnected, and have battery backup. These detectors are required to be placed in each new and recondition sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final. Date of installation must be added to exterior of the smoke alarm and will be checked at final. Smoke alarms to be installed per manufactures instruction and NFPA 72.

23. Add Note to plans: Escape or rescue windows shall have a minimum net clear openable area of 5.7 square feet, 5.0 sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor. (CFC 2019 section 1030.2).

24. Identify rescue windows in each bedroom and verify that they meet all requirements. Add this to plans.

25. A plan and profile of the driveway/ roadway will be needed. Add to the plans.

26. Add Note to plans: Dead end emergency access exceeding 150 feet shall be provided with width and turnaround provisions meeting California Fire Code appendix D.

27. Add Note to plans: Fire apparatus access roads to be an approved all weather surface. Grades 15% or greater to be surfaced w/ asphalt, or brushed concrete. Grades 15 % or greater shall be limited to 150 ft. in length with a minimum of 500 ft. between the next section. For roads approved less than 20 ft., 20 ft. wide turnouts shall be on each side of 15% or greater section. No grades over 20%. (Plan and profile required) CFC 503.

28. A Knox padlock or key switch will be required if there is limited access to property. CFC 506.1. For application and instructions please cfpdfiremarshal@fire.ca.gov if you need further assistance please contact Coastside Fire Protection District at 650-726-5213.

29. Gates shall be a minimum of 2 feet wider than the access road/driveway they serve. Overhead gate structures shall have a minimum of 15 feet of vertical clearance. Locked gates shall be provided with a Knox Box or Knox Padlock. Electric gates shall have a Knox Key Switch. Electric gates shall automatically open during power failures. CFC 503.6, 506.

30. Add Note to plans: Fire Hydrant: Due to the size of the structure (over 3600 square feet), as per 2019 CFC, Appendix B and C, an approved fire hydrant (Clow 960) shall be located within 500 feet of the proposed single-family dwelling unit measured by way of drivable access with a minimum fire flow of 875 per minute at 20 pounds per square inch. Contact the local purveyor for water flow details.

31. Show location of fire hydrant on a site plan. A fire hydrant is required within 500 feet of the building and flow a minimum of 875 gpm at 20 psi. This information is to be verified by the water purveyor in a letter initiated by the applicant and sent to San Mateo County Fire/CAL Fire or Coastside Fire District. If there is not a hydrant within 500 feet with the required flow, one will have to be installed at the applicant's expense.

32. Add Note to plans: Automatic Fire Sprinkler System: (Fire Sprinkler plans will require a separate permit). The applicant is required to install an automatic fire sprinkler system throughout the proposed or improved dwelling and garage. All attic

access locations will be provided with a pilot head on a metal upright. Sprinkler coverage shall be provided throughout the residence to include all bathrooms, garages, and any area used for storage. The only exception is small linen closets less than 24 square feet with full depth shelving. The plans for this system must be submitted to the San Mateo County Planning and Building Department. A building permit will not be issued until plans are received, reviewed and approved. Upon submission of plans, the County will forward a complete set to the Coastside Fire District for review.

33. Installation of underground sprinkler pipe shall be flushed and visually inspected by Fire District prior to hook-up to riser. Any soldered fittings must be pressure tested with trench open. Please call the San Mateo County Fire Marshal's office to schedule an inspection.

34. Exterior bell: is required to be wired into the required flow switch on your fire sprinkler system.

35. Add note to the title page that the building will be protected by an automatic fire sprinkler system.

Department of Public Works

36. 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.

37. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

38. 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 #3277.

39. Should the access shown on the plans go through neighboring properties, the applicant shall provide documentation that "ingress and egress" easements exist providing for this access, prior to issuance of planning permit.

County Environmental Health Services

40. At the building permit application stage, the applicant shall submit plans consistent with the On-site Wastewater Treatment System (OWTS) design that has been reviewed and preliminarily approved by Environmental Health Services.

Please note that the decision of the Bayside 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 Grading Permit. A hearing before the Planning Commission on the Initial Study/ Mitigated Negative Declaration, Design Review Permit, and Grading Permit will take place at a later date. The revised project plans, including the septic plans showing saving the tree(s) to the extent feasible, shall be submitted to Planning Staff. The revised septic plans will be reviewed by Environmental Health Services and subject to Environmental Health Services approval, prior to Planning Commission meeting. Staff will set a Planning Commission hearing date once the plans are preliminarily approved by Environmental Health Services.

For more information, please contact Camille Leung, Senior Planner, at cleung@smcgov.org or 650/363-1826, if you have any questions.

Sincerely,

Erica D, Adams
Bayside Design Review Officer

cc: Anusha Thalapaneni and David E. Jackson, Property Owners
Interested Members of the Public
Bayside Design Review Committee

Envelope:
/end

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** Thalapaneni/Jackson Residence, Septic System, and Improved Driveway

2. **County File Number:** PLN2020-00251

3. **Lead Agency Name and Address:** County of San Mateo, Planning and Building Department, 455 County Center, Second Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Camille Leung, Project Planner, 650/363-1826, cleung@smcgov.org (email is preferred method of communication)

5. **Project Location:** Development of vacant parcel located at Palomar Drive and Los Cerros Road (Subject Property), and minor associated work at 636 Palomar Drive and APN 051-022-250, located in the unincorporated Palomar Park area of San Mateo County.

6. **Assessor's Parcel Number and Size of Parcel:** APN 051-022-380 (18,122 sq. ft.; Subject Parcel). Project also involves work on APN 051-022-360 (Approx. 0.359 Acres) at 636 Palomar Drive, the adjoining parcel to east which uses a shared driveway and APN 051-022-250, as well as a vacant parcel to east of 636 Palomar Drive which also uses the shared driveway.

7. **Project Sponsor's Name and Address:** Maurits de Gans, Senior Associate, M Designs Architects, 4131 El Camino Real, Suite 200, Palo Alto, CA 94306

8. **Owner:** Anusha Thalapaneni and David E. Jackson, 3988 Sutherland Drive, Palo Alto, CA 94303

9. **General Plan Designation:** Medium Low Density Residential; Urban

10. **Zoning:** One-Family Residential/Combining District (Minimum Lot Size 10,000 sq. ft.)/Design Review (R-1/S-91/DR)

11. **Description of the Project:** The project requires a Design Review Permit and a Grading Permit for the construction of a new 3-story, 4,214 sq. ft. single-family residence plus a 566 sq. ft. attached garage, on a 18,122 sq. ft. legal parcel (Lot Line Adjustment recorded April 26, 1983). The project also includes a 315 sq. ft. covered terrace and a 324 sq. ft. deck. The property is at the intersection of Palomar Drive and Los Cerros Road and would be accessed from an improved existing gravel driveway located on 636 Palomar Drive and APN 051-022-250. The project includes earthwork of 880 cubic yards (c.y.) of cut and 90 c.y. of fill and the removal of 7 significant trees.

12. **Surrounding Land Uses and Setting:** The property is located within an existing residential neighborhood and adjoins developed parcels on the east, south, and southwest sides. Access is proposed via an access easement and an improved existing gravel driveway on 636

Palomar Drive and APN 051-022-250. The property slopes upward from Los Cerros Road with an average slope of approximately 34%.

13. **Other Public Agencies Whose Approval is Required:** None.

14. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?: No, consultation has not begun.** Planning staff has consulted with the following tribes, as identified by the Native American Heritage Commission (NAHC): Amah Mutsun Tribal Band of Mission San Juan, Coastanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, the Ohlone Indian Tribe, the Wuksasche Indian Tribe/Eschom Valley Band, and the Tamien Nation. On January 25, 2022, a letter was sent to each of the contact persons provided by the NAHC regarding the subject project requesting comment by February 25, 2022. No comments were received to date.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Significant Unless Mitigated” as indicated by the checklist on the following pages.

X	Aesthetics		Energy		Public Services
	Agricultural and Forest Resources		Hazards and Hazardous Materials		Recreation
	Air Quality	X	Hydrology/Water Quality		Transportation/Traffic
X	Biological Resources		Land Use/Planning		Tribal Cultural Resources
	Cultural Resources		Mineral Resources		Utilities/Service Systems
X	Geology/Soils		Noise		Wildfire
	Climate Change		Population/Housing	X	Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1. AESTHETICS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
1.a. Have a substantial adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?			X	
Discussion: The project is not located near any waterbody or scenic roads. The site is located over 2,000 feet north of Edgewood Road, a County-designated Scenic Route from Canada Road to Alameda de las Pulgas. The site is located 350 feet (as the crow flies) from Eaton Park in the City of San Carlos and may be minimally visible from some park trails, but only minimally due to intervening trees and distance. The site is visible from adjoining areas within the residential area in which it is located. As the new residence and driveway would abut developed residential property and blend in with other houses and driveways in the area, the project would not have a significant adverse effect on views from existing residential areas. Source: Site visit; County GIS Maps				
1.b. Substantially damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
Discussion: The project is not located within a designated scenic corridor, nor would it impact areas within a state scenic highway. The site is located over 2,000 feet north of Edgewood Road, a County-designated Scenic Route from Canada Road to Alameda de las Pulgas. Source: County GIS Maps				
1.c. In non-urbanized areas, significantly degrade the existing visual character or quality of the site and its surroundings, including significant change in topography or ground surface relief		X		

features, and/or development on a ridgeline? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				

Discussion: The site is located within an urban residential area. The project site is not located on a ridgeline.

The project would result in the removal of 7 significant trees (those over 6" inches in diameter), including:

- 2 multi-trunk Oak Trees (Tree #14: 21.1", 17.5" diameter at breast height (d.b.h.); Tree #17: 11.1", 7.8" d.b.h.),
- 3 Buckeye trees (Tree #8: 6"; Tree #15: 10", 6.4"; Tree #16: 10" d.b.h.), and
- 2 Eucalyptus trees (Tree # 18: 25.7", 17"; Tree #19: 12", 13.5", 19.5", 14" d.b.h.)

The applicant has submitted a report by Roy Leggitt, Certified Arborist (Project Arborist), dated December 12, 2020. The report states that Tree #8 should be removed as it is located within the area of the landslide repair, Tree #14 should be removed as it is within the footprint of the house, and Tree #15 should be removed as it is located within the area of the proposed leach field. All other trees to be removed have poor structure and, in the case of Tree #17, a decayed trunk.

The report states that another 12 trees would be impacted by the project. Mr. Leggitt includes a recommended construction procedures and a tree protection plan to protect the remaining trees. Mitigation Measure 2 requires project compliance with the recommendations of the Project Arborist.

Section 6565.21 of the Design Review (DR) Zoning District regulations requires replacement of a significant indigenous tree with three (3) or more trees of the same species using at least five (5) gallon size stock. For each loss of a significant exotic tree, there shall be a replacement with three (3) or more trees from a list maintained by the Planning Director. Section 6565.20(f) encourages planting of native and drought-tolerant plant tree species. The applicant proposes to plant two (2), 24" box Australian Willow trees at the front of the residence, as well as various shrubs surrounding the residence, as shown in the Planting Plan.

Staff has added Mitigation Measure 1 which requires the planting of 5 replacement trees, to include minimum of three (3), 24" box Oak trees, and requires the Planting Plan to be approved by the Project Arborist. The mitigation measure satisfies Section 6565.21 in that, while a fewer number of replacement trees is required (3 - 24" box oak trees and 2- 15 gallon trees, for the removal of 2 significant exotic trees and 5 significant indigenous trees), the sizes of the required replacement trees is much larger than the minimum 5 gallon stock required by Section 6565.21.

The project involves a significant amount of grading for the improved existing gravel driveway on 636 Palomar Drive and APN 051-022-250 and the construction of a new residence and septic system on the sloped parcel. However, the proposed grading would not result in a significant change in topography or ground surface relief features, as the existing driveway will be used to serve the project. The septic system would be underground with finished grades contoured to blend in with the natural topography. Also, a slope repair of the front portion of the parcel along Los Cerros Road has been completed and blends with natural topography of the site. As proposed in the Planting Plan, all portions of the property, excluding the area of the new house and driveway, will be planted or seeded.

As proposed and mitigated, the project would not significantly degrade the existing visual character or quality of the site and its surroundings.

Mitigation Measure 1: The applicant shall replace the 2 significant exotic trees and 5 significant indigenous trees proposed for removal with a total of 5 replacement trees, to include minimum of three (3), 24" box Oak trees, with the remaining trees to be a minimum of 15 gallon in size. Prior to the issuance of the building permit for the residence, the Planting Plan shall be reviewed and subject to the approval of the Project Arborist and project planner.

Mitigation Measure 2: Prior to any land disturbance and throughout the grading operation, the applicant shall implement the tree protection measures consistent with the County's Significant Tree Ordinance in addition to the construction procedures and tree protection measures provided by the Project Arborist.

Source: Site visit; County GIS Maps

1.d. Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?			X	

Discussion: The project does not involve the introduction of significant light sources that would adversely affect day or nighttime views in the area, as the project involves the construction of a residence within an existing residential area. Additionally, design review standards of the Design Review (DR) District require downward-directed exterior light fixtures.

Source: Project plans

1.e. Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?			X	

Discussion: The parcel is not located within a State or County Scenic Corridor and is not adjacent to a State Highway. The proposed improvements on the subject parcel would not be visible from Interstate-280 (Junipero Serra Freeway), located over 7,500 feet to the west, due to the distance of the property and proposed structures from the freeway.

Source: County GIS Maps

1.f. If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?			X	

Discussion: The site is located in a Design Review District. The project will require a Design Review Permit and is required to comply with applicable design review standards. The project will be reviewed by the Bayside Design Review Committee for compliance with applicable design review standards. Planning staff has reviewed the proposal and found it to be in substantial compliance with the design review standards.

Source: County GIS Maps; County Zoning Regulations

1.g. Visually intrude into an area having natural scenic qualities?		X		

Discussion: Please see Section 1.c for discussion.

Source: Site visit; County GIS Maps

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

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
2.a. For lands outside the Coastal Zone, convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
Discussion: The project is outside of the Coastal Zone and involves an urban, residential property located within a Single-Family Residential Zoning District within a developed area, which does not contain agricultural lands and is not farmed. There is no project impact to farmland, forestland or timberland. Source: Site visit; County GIS Maps				
2.b. Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X
Discussion: See discussion under Section 2.a. Source: County GIS Maps				
2.c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?				X
Discussion: See discussion under Section 2.a. Source: Project plans; County GIS Maps				

2.d. For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?				X
Discussion: Project site is not located in the Coastal Zone. See discussion under Section 2.a. Source: County GIS Maps				
2.e. Result in damage to soil capability or loss of agricultural land?				X
Discussion: See discussion under Section 2.a. Source: County GIS Maps				
2.f. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*				X
Discussion: See discussion under Section 2.a. Source: County GIS Maps				

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
3.a. Conflict with or obstruct implementation of the applicable air quality plan?		X		
Discussion: The project involves tree removal, grading, and construction activities associated with house and driveway construction within a lower density developed residential area. The site is designated Medium Low Density Residential with a minimum parcel size of 10,000 sq. ft. in the S-91 Zoning District. While the project may result in dust and odors associated with the grading and construction process, these impacts would be temporary and would not affect a significant number of people due to required mitigation measures and intervening trees and the distance of the project site from other development.				

The Bay Area Air Quality Management District (BAAQMD) has established thresholds of significance for construction emissions and operational emissions. As described in the BAAQMD's 2017 California Environmental Quality Act (CEQA) Guidelines, the BAAQMD does not require quantification of construction emissions due to the number of variables that can impact the calculation of construction emissions. Instead, the BAAQMD emphasizes implementation of all control measures to minimize emissions from construction activities. The BAAQMD provides a list of construction-related control measures, *All Basic Construction Mitigation Measures,* and other criteria, that, when fully implemented, would significantly reduce construction-related air emissions to a less than significant level. Mitigation Measure 3.a- 3.i requires the applicant to comply with BAAQMD's *All Basic Construction Mitigation Measures*. Other applicable BAAQMD criteria requires that construction-related activities exclude the below listed activities (followed by staff's evaluation of project compliance):

a. Demolition: The project site is undeveloped and would not require demolition of any existing buildings.

b. Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously): Staff has added this as Mitigation Measure 3.i to require compliance with this criteria.

c. Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development): The project only involves the construction of a single-family residential use.

d. Extensive site preparation (i.e., greater than default assumptions used by the Urban Land Use Emissions Model [URBEMIS] for grading, cut/fill, or earth movement): The project will not require extensive site preparation, and would disturb approximately 14,000 sq. ft.

e. Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity: The project will not extensive material transport requiring off haul of approximately 880 cubic yards (c.y.) of cut.

BAAQMD measures and compliance with criteria b. above are required by the mitigation measure provided below.

Mitigation Measure 3: Upon the start of excavation activities and through to the completion of the project, the applicant shall be responsible for ensuring that the following dust control guidelines are implemented:

a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. All vehicle speeds on unpaved roads shall be limited to 15 mph.

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

h. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

i. Construction-related activities shall not involve simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously).

Source: Project Plans; Bay Area Air Quality Management District.

3.b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?		X		

Discussion: As of December 2012, San Mateo County is a non-attainment area for PM-2.5. On January 9, 2013, the Environmental Protection Agency (EPA) issued a final rule to determine that the Bay Area attains the 24-hour PM-2.5 national standard. However, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour PM-2.5 standard until the BAAQMD submits a "re-designation request" and a "maintenance plan" to EPA and the proposed re-designation is approved by the EPA. A temporary increase in the project area is anticipated during construction since these PM-2.5 particles are a typical vehicle emission. The temporary nature of the proposed construction and California Air Resources Board vehicle regulations reduce the potential effects to a less than significant impact. Mitigation Measure 3 in Section 3.a will minimize increases in non-attainment criteria pollutants generated from project construction to a less than significant level.

Source: Project Plans; Bay Area Air Quality Management District.

3.c. Expose sensitive receptors to significant pollutant concentrations, as defined by Bay Area Air Quality Management District?		X		

Discussion: As proposed and mitigated, potential project-related air quality impacts to sensitive receptors (occupants of the surrounding residential area) would be reduced to a less-than-significant level. See discussion in Section 3.a.

Source: Project Plans; Bay Area Air Quality Management District.

3.d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Discussion: Project-related emissions would not adversely affect a substantial number of people due to the lower residential density of the area. As proposed and mitigated, potential project-related air quality impacts, including odor, to sensitive receptors (occupants of the surrounding residential area) would be reduced to a less-than-significant level. See discussion in Section 3.a.

Source: Project Plans; Bay Area Air Quality Management District.

4. BIOLOGICAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
4.a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service or National Marine Fisheries Service?		X		
Discussion: The project site is located within a developed residential area on a disturbed parcel (previous slope repair completed) and consists of steep grassland with many significant indigenous and exotic trees, as well as other non-significant trees. Due to the disturbed and developed nature of the site, the potential for the presence of protected plant species is low. While the potential for protected wildlife specifies to be present is also low, the following standard mitigation measures have been added to further reduce potential biological impacts of the projects. **Mitigation Measure 4:** Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting) or similar material shall not be used. The applicant shall demonstrate compliance with this requirement in plans submitted at the time of building permit application. **Mitigation Measure 5:** A pre-construction, migratory bird nesting survey shall be conducted prior to any proposed construction-related activities during the nesting bird season (February 1 to August 31). The survey shall be performed both in and within 250 feet of the proposed development area and the results reported to the County. If, for any reason, construction activities do not commence within 10 days of completion of the survey, the survey shall be repeated and results reported to the County. If active nests are discovered, no construction-related activities, including grading and tree removal, are allowed until birds have fledged from nests, as confirmed by a biologist. Sources: Standard biological mitigation measures.				
4.b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
Discussion: Please see the discussion in Section 4.a, above. Sources: Standard biological mitigation measures.				

4.c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
Discussion: The project site is located within a developed residential area on a disturbed parcel (previous slope repair completed) and consists of steep grassland with many significant indigenous and exotic trees, as well as other non-significant trees. There are no federally protected wetlands at the project site. Sources: Planning GIS Map.				
4.d. Interfere significantly with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
Discussion: Please see the discussion in Section 4.a, above. Sources: Planning GIS Map.				
4.e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?			X	
Discussion: See Section 1.c. Sources: Project plans				
4.f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan?				X
Discussion: The project site is not protected by an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan. The proposed area of work is located adjacent to existing residential homes in an area zoned for residential land use. Source: County General Plan; County GIS Maps				
4.g. Be located inside or within 200 feet of a marine or wildlife reserve?				X

Discussion: The project site is not located inside or within 200 feet of a marine or wildlife reserve. Source: County General Plan; County GIS Maps				
4.h. Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: The project would not involve the removal of oak woodlands or other non-timber woodlands. Source: Site visit; County GIS Maps				

5. CULTURAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
5.a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Section 15064.5?			X	

Discussion: The project involves earth-moving and construction impacts that could adversely affect archaeological resources should any exist in areas impacted by this project. The project was referred to the California Historical Resources Information System (CHRIS). In a letter dated February 1, 2022, CHRIS staff stated that, while the general area around the proposed project parcel has some archaeological sensitivity, the proposed project area itself, has a low possibility of containing unrecorded archaeological site(s). Therefore, no further study for archaeological resources is recommended by CHRIS. 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.

The following standard measures have been incorporated below:

Mitigation Measure 6: Although proposed project area itself has low possibility of containing unrecorded archaeological site(s), it is possible that subsurface deposits may yet exist or that evidence of such resources has been obscured by more recent natural or cultural factors such as downslope aggradation and alluviation and the presence of non-native trees and vegetation. Archaeological and historical resources and human remains are protected from unauthorized disturbance by State law, and supervisory and construction personnel therefore must notify the County and proper authorities if any possible archaeological or historic resources or human remains are encountered during construction activities and halt construction to allow qualified Archaeologists to identify, record, and evaluate such resources and recommend an appropriate course of action.

Mitigation Measure 7: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The cost of the qualified archeologist and any recording, protecting, or curating shall be borne solely by the project sponsor. The archeologist shall be required to submit to the Community

Development Director for review and approval a report of the findings and methods of curation or protection of the resources. No further grading or site work within the area of discovery shall be allowed until the preceding has occurred. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

Sources: Letter from California Historical Resources Information System (CHRIS), dated February 1, 2022.

5.b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?			X	

Discussion: Please see Section 5.a for discussion.

Sources: Letter from California Historical Resources Information System (CHRIS), dated February 1, 2022.

5.c. Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion: To minimize potential impacts to human remains, the property owner shall implement the following standard mitigation measure:

Mitigation Measure 8: The applicants and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains, whether historic or prehistoric, during grading and construction. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

Sources: Letter from California Historical Resources Information System (CHRIS), dated February 1, 2022.

6. ENERGY. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
6.a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	

Discussion: Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and are updated every 3 years (Title 24, Part 6, of the

California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

The County has adopted amendments to the 2019 Energy Code which require new buildings to be constructed without natural gas infrastructure and systems and meet solar photovoltaic system requirements, as well as amendments to the Green Building Code that require additional electric vehicle charging infrastructure (EVCI) for the construction of new buildings. The amendments would go into affect if and when the amendments are approved by California Energy Commission, which is pending.

At the time of building permit application, the project would be required to demonstrate compliance with the current Building Energy Efficiency Standards which would be verified by the San Mateo County Building Department prior to the issuance of the building permit. The project would also be required adhere to the provisions of CALGreen and GreenPoints, which establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

Construction

The construction of the project would require the consumption of nonrenewable energy resources, primarily in the form of fossil fuels (e.g., fuel oil, natural gas, and gasoline) for automobiles (transportation) and construction equipment. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Most construction equipment during demolition and grading would be gas-powered or diesel powered, and the later construction phases would require electricity-powered equipment.

Operation

During operations, project energy consumption would be associated with resident and visitor vehicle trips and delivery trucks. The project is a residential development project served by existing road infrastructure and the improved driveway. Pacific Gas and Electric (PG&E) provides electricity to the project area. Due to the proposed construction of a single-family residence, project implementation would result in a permanent increase in electricity over existing conditions. However, such an increase to serve a single-family residence would represent an insignificant percent increase compared to overall demand in PG&E's service area. The nominal increased demand is expected to be adequately served by the existing PG&E electrical facilities and the projected electrical demand would not significantly impact PG&E's level of service. It is expected that nonrenewable energy resources would be used efficiently during operation and construction of the project given the financial implication of the inefficient use of such resources. As such, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Impacts are less than significant, and no mitigation is required.

Source: California Building Code, California Energy Commission, Project Plans.

6.b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.				X

Discussion: The project design and operation would comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. Therefore, the project

does not conflict with or obstruct state or local renewable energy plans and would not have a significant impact. Furthermore, the development would not cause inefficient, wasteful and unnecessary energy consumption.

Source: Project Plans.

7. GEOLOGY AND SOILS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*		X		

Discussion: The project, including associated studies prepared by the Project Geologist and Project Geotechnical Engineers, was reviewed by the County's Geologic and Geotechnical consultant, Cotton, Shires and Associates, Inc. (CSA), and preliminarily approved. Documentation of County review and approval is provided in the documents listed below:

- Geotechnical Peer Review, RE: Onsite Wastewater Treatment System (OWTS), PLN2020-00251, 634 Palomar Drive, prepared by Cotton, Shires and Associates, Inc, dated June 14, 2021
- Supplemental Geotechnical Peer Review, RE: Onsite Wastewater Treatment System (OWTS), PLN2020-00251, 634 Palomar Drive, prepared by Cotton, Shires and Associates, Inc, dated November 5, 2021 [*referred to in this report as "County approval of OWTS"].*
- Email from Craig Stewart, Cotton, Shires and Associates, Inc, to Sherry Liu (County Geotechnical Section), dated August 28, 2020.

The County's review included the following Geotechnical Reports and letters submitted by the applicant (Sources for this Section):

- Geotechnical Report Update, Proposed Residential Development, 634 Palomar Drive, Redwood City, California, prepared by Atlas Geosphere Consultants, Inc., dated July 29, 2020 *[referred to in this report as "2020 Atlas Geosphere Consultants, Inc., Geotechnical Report Update"].*

- Supplemental Geotechnical Investigation, Proposed Single Family Residence, 634 Palomar Drive, Redwood City, California, prepared by Earth Investigations Consultants, dated April 11, 2014.
- Geotechnical Investigation, Proposed Single Family Residence, 634 Palomar Drive, Redwood City, California, prepared by Earth Investigations Consultants, dated October 17, 2013 *[referred to in this report as "2013 Earth Investigations Consultants Geotechnical Investigation"].*
- Supplemental Engineering Geologic Study, Onsite Wastewater Treatment System (OWTS), Proposed Single-Family Residential Development, 634 Palomar Drive, Redwood City, California, prepared by Atlas Geosphere Consultants, Inc., dated October 4, 2021 *[referred to in this report as "2021 Atlas Geosphere Consultants, Inc., Supplemental Engineering Geologic Study, OWTS"].*
- Geotechnical Plan Review, Civil and Landscape (only), prepared by Atlas Geosphere Consultants, Inc., dated May 12, 2022.

Geologic Setting

The 2013 Earth Investigations Consultants (EIC) Geotechnical Investigation states that the site is at an approximate elevation of 450 feet above mean sea level on the northern flank of a dissected spur ridge (Plate 1). This area drains to a seasonal drainage channel tributary to Cordilleras Creek. According to Brabb and others (1998), this area is underlain by tightly folded, Jura-Cretaceous, Franciscan sandstone. In the site area, a strata dip steeply to the southwest. Leighton and Associates (1976) describe this bedrock material to include sandstone, siltstone and shale, and locally conglomerate. Relative stability of slopes ranged from poor to good depending on orientation of discontinuities relative to slopes. Earthquake stability is generally considered good relative to the capacity to support slopes. The site lies in a tectonic block between the active San Andreas fault, mapped approximately 2 miles to the southwest and the Hayward fault mapped approximately 18 miles to the northeast. The active San Gregorio fault is mapped approximately 9 miles to the southwest.

Site Characteristics

The 2013 EIC Geotechnical Investigation states that the site occupies a graded, moderately steep to steep northeasterly slope uphill of Palomar Drive (Plate 2, Site Plan). Undocumented grading that EIC understands occurred in 2012 created a benched topographic profile with an approximately 2-foot high vertical cut supported by post-supported plywood sheeting on the uphill margin of a gently sloping bench made for the proposed residence. A gently sloping gravel-surfaced bench separated from the upper bench by a steep fill slope (approx. 30 degrees) represents the proposed driveway extending across the eastern property line to the upper bench. There is another steep fill slope (approx. 25-35 degrees), which occurs on the downhill side of the driveway. Beyond the toe of the driveway fill slope, there is a steep, native slope (approx. 25 degrees) that extends to the northern property line adjoining Los Cerros Road.

The 2020 Atlas Geosphere Consultants, Inc., Geotechnical Report Update includes observations from recent reconnaissance which confirmed the proposed development area surface conditions at the top of the slope described in the EIC reports have remained generally the same. The report notes that in 2017 a landslide to an approximate depth of 10 feet and involving sheared Franciscan bedrock occurred on the native slope between the proposed development area and Los Cerros Road (Plate 1; Earth Investigations Consultants, Inc., 2017). Geotechnical course-of-construction grading, and drainage of the slope repair approximately delineated on Plate 1 was under the direction of Geosphere. The project was approved by Geosphere and finaled by the County of San Mateo Planning and Building Department in 2019.

As stated in their 2020 Geotechnical Report Update, it is the opinion of Atlas Geosphere Consultants, Inc. (Project Geologist and Geotechnical Engineer), that the area residential

development as planned is feasible from a geotechnical standpoint. It appears undocumented fill in the proposed house development area will be mitigated by grading and/or retaining walls. They state that fill along the proposed driveway should be treated in accordance with the recommendations grading and/or retaining wall recommendations presented in Appendix A of the 2020 Geotechnical Report Update. Also, they provide supplemental recommendations to accommodate design and construction of the proposed swimming pool.

Recommendations from CSA and Atlas Geosphere Consultants, Inc. are included as Mitigation Measures 9 and 10.

Mitigation Measure 9: Prior to the issuance of a building permit for site development, the applicant shall demonstrate compliance with the recommendations of the Project Geologist and Geotechnical Engineer, including but not limited to those pertaining to: 1) mitigation of undocumented fill in the proposed house development area, 2) treatment of fill along the proposed/improved driveway in accordance with the recommendations for grading and/or retaining wall construction presented in Appendix A of the 2020 Geotechnical Report Update and 3) supplemental recommendations to accommodate design and construction of the proposed swimming pool (Source: 2020 Atlas Geosphere Consultants, Inc., Geotechnical Report Update).

Mitigation Measure 10: Prior to the issuance of a building permit for site development, the applicant shall demonstrate compliance with the recommendations of the County's Geologist and Geotechnical Engineer, including but not limited to those pertaining to: 1) Close coordination with the Project Geotechnical Consultant in design of proposed foundations, retaining walls, drainage improvements, and landscape irrigation which may benefit project performance; 2) Submittal of an updated geotechnical report with supplemental recommendations, design criteria, and supporting data, as appropriate; and 3) Project design and final plans should incorporate geotechnical recommendations and design criteria to mitigate site constraints as identified by the Project Geotechnical Consultant (Source: Craig Stewart, CSA, email to County, dated August 28, 2020).

Sources: See sources listed in this Section.

ii. Strong seismic ground shaking?			X	

Discussion: Potential substantial adverse effects related to strong seismic ground shaking was not identified as a potential significant impact by the Project Geologist and Geotechnical Engineer. See Section 7.a.

Sources: Sources listed in Section 7.a.

iii. Seismic-related ground failure, including liquefaction and differential settling?			X	

Discussion: Potential substantial adverse effects related to seismic-related ground failure, including liquefaction and differential settling was not identified as a potential significant impact by the Project Geologist and Geotechnical Engineer. See Section 7.a.

Sources: Sources listed in Section 7.a.

iv. Landslides?		X		

Discussion: In an email dated May 13, 2022, the Project Geotechnical Engineer states that there are no unmitigated landslides within the area of influence to the site. The applicant has submitted reports (as listed in Section 7.a) prepared by the Project Geologist and Project Geotechnical Engineers, which notes past landslides and landslide repair at the property. As stated in their

2020 Geotechnical Report Update, it is the opinion of Atlas Geosphere Consultants, Inc. (Project Geologist and Geotechnical Engineer), that the area residential development as planned is feasible from a geotechnical standpoint. It appears undocumented fill in the proposed house development area will be mitigated by grading and/or retaining walls. They state that fill along the proposed driveway should be treated in accordance with the recommendations grading and/or retaining wall recommendations presented in Appendix A of the 2020 Geotechnical Report Update. Also, they provide supplemental recommendations to accommodate design and construction of the proposed swimming pool. Compliance with the recommendations of the Project Geologist and Geotechnical Engineer is a standard requirement and required by Mitigation Measure 9.

In a letter dated August 2020 from Cotton, Shires and Associates, Inc. (CSA), CSA reviewed the project and associated studies on behalf of the County Planning and Building Department and determined that they do not have geotechnical objections to planning project approval, subject to the following recommendations: 1) that the project performance may benefit greatly from close coordination with the Project Geotechnical Consultant in design of proposed foundations, retaining walls, and drainage improvements; 2) An updated geotechnical report with supplemental recommendations, design criteria, and supporting data, as appropriate, should be submitted at the building permit stage for final peer review along with project plans; and 3) Project design and final plans should incorporate anticipated geotechnical recommendations and design criteria to mitigate site constraints as identified by the Project Geotechnical Consultant. Compliance with the recommendations of the County Geologist and Geotechnical Engineer is required by Mitigation Measure 10.

Investigation of the Proposed Onsite Wastewater Treatment System (OWTS)

The design of the proposed OWTS and associated studies were reviewed by the County's Geologic and Geotechnical consultant, Cotton, Shires and Associates, Inc., on behalf of the Environmental Health Department.

The 2021 Atlas Geosphere Consultants, Inc., Supplemental Engineering Geologic Study, OWTS, includes a description of tasks undertaken to arrive at the findings, conclusions and recommendations presented in this report including the following:

- Review of pertinent in-house documents, and documents by San Mateo County Environmental Health Department files;

- Supplemental characterization of topo-morphology and engineering geology in the OWTS area of influence from supplemental reconnaissance mapping, interpretation of recent drone imagery, 1953 USGS topographic mapping (Plate 1), 1956 vertical, panchromatic stereo aerial photography, interactive Google Earth Pro imagery, and 2017 315-degree azimuth hillshade LiDAR imagery (Plate 3, Geomorphic Map; Plate 4, Photo Gallery);

- Supplemental subsurface exploration and sampling to characterize the geologic profile to a depth of 19 feet at the locations depicted on Plate 2 (Appendix A, Logs of Soil Exploration and Laboratory Test Results);

- Evaluation of the distribution and maintenance of California Water Service mains in the local area of influence (Appendix B, San Carlos District Water System Map and Legend)

- Review and preliminary analysis of available geotechnical, and geohydrologic data pertaining to seepage from perched ground water onto Los Cerros Road, and landsliding on neighboring 13 Los Cerros Road and 738 Loma Court (Appendix C, Evaluation of Seepage and 2017 Landsliding on 13 Los Cerros Road and 738 Loma Court).

The 2021 report states that the supplemental subsurface exploration and surface mapping revealed competent sandstone to be underlying the proposed leachfield. Sandstone exposed in the cut slope above Boring 1 exhibited a favorably steep inclination relative to slope stability, and steep closely spaced jointing relative to optimum OWTS performance over the project lifetime (Plate 2). The 2021 report states that, in the opinion of Atlas Geosphere Consultants, Inc., these findings buttress conclusions and recommendations pertaining to other principal geotechnical aspects of the project presented in their previous reports (Geosphere Consultants, Inc. 2019; Atlas Technical Consultants LLC, 2020).

In a letter dated November 5, 2021, from CSA, CSA reviewed the project and associated studies on behalf of the County Planning and Building Department and determined that they do not have engineering geologic or geotechnical engineering objections to approval of the subject OWTS application. The proposed OWTS has received preliminary approval from County Environmental Health Services.

The County's review also included the following Geotechnical Reports prepared for APN 051-022-310 (Vacant parcel that adjoins the project site to the northwest), provided by the property owner of 738 Loma Court (who also owns APN 051-022-310) and comment letter from the Palomar Park Owner's Association:

- Engineering Geologic Consultations, APN 051-022-180, 738 Loma Court, San Mateo County, California, prepared by Steven F. Connelly, C.E.G., dated August 10, 2021
- Comments on the Proposed Leach Field, Enea Property, 738 Loma Court, Redwood City, California, prepared by GeoForensics Inc., dated March 16, 2020
- Spring Source and Protection Reconnaissance, prepared by Balance Hydrologics, Inc., for APN 051-022-310, dated April 16, 2014
- Landslide Area, 0 Los Cerros APN 051-022-310, prepared by Kilik General Engineering, dated November 4, 2017.
- APN 051-022-301 (vacant) – Mueller, O'Neill, prepared by Lea & Braze Engineering, Inc., dated September 3, 2014
- Letter from Palomar Park Owner's Association, dated October 28, 2021.

Concerns are summarized below, with a response from Planning Staff:

Concern 1: General concern regarding historical landslides at the subject site and neighboring properties and why the County would allow the project site to be developed.

Staff's Response to Concern 1: As discussed in this Section, the applicant has submitted comprehensive, site-specific reports, including subsurface exploration and testing, for the proposed residence and septic system, which have reviewed by the Project Geologist and Geotechnical Engineer as well as by the County's Geologist and Geotechnical Engineer, and received preliminary approval from County Environmental Health Services.

Concern 2: A 2014 Balance Hydrologics, Inc. letter for APN 051-022-310 (undeveloped parcel to the immediate west of the subject site) has found near-surface groundwater and a flowing spring on that parcel, as well as on the parcel at 738 Loma Court (developed parcel which adjoins APN 051-022-310 to the west). A 2017 Kilik General Engineering letter also identifies subterranean water sources emanating from the subject site. In general, both letter recommend proceeding with caution as earthwork and additional water into the slope (such as from a septic system) could cause unstable conditions elsewhere. A 2020 letter from GeoForensics, Inc., the letter recommends that a leach field should be located no higher than 20 feet above the elevation of Los Cerros Road, with 50 feet of horizontal separation between the work conducted at the off-site properties listed. A 2014 Lea & Braze Engineering, Inc. letter also describes a spring and water seep in the area and warns against the removal of vegetation at the property which may contribute

to slope instability. A 2021 Engineering Geologic Consultation by Steven F. Connelly, C.E.G. of 738 Loma Court, APN 051-022-310, and the subject site includes a review of previous investigations at the site, as well as a 2021 Geotechnical Peer Review letter by CSA for the OWTS, and states that effluent from the adjacent proposed leachfield system should not be allowed to contribute to the drainage system of the landslide repair at 738 Loma Court and should be carefully assessed.

Staff's Response to Concern 2: With the exception of the 2021 Connelly letter, the letters by the listed firms describe recommendations based on brief reviews of the adjoining off-site properties at 738 Loma Court and APN 051-022-310. It is unclear if the letters represent a study of the project site, which make general reference to the site address, with no enclosed maps and no mention of specific site locations or the site APN. The 2021 Connelly report includes a review of the subject site but does not include subsurface exploration and testing.

The applicant has submitted comprehensive, site-specific reports, including subsurface exploration and testing, for the proposed residence and septic system, which have been reviewed by the Project Geologist and Geotechnical Engineer as well as by the County's Geologist and Geotechnical Engineer, and received preliminary approval from County Environmental Health Services. In an email dated May 13, 2022, the Project Geotechnical Engineer states that the 2013 Earth Investigations Consultants Geotechnical Investigation mentions no observed seepage from the ground surface (i.e., spring), and all the borings drilled on 634 Palomar Drive site encountered no ground water, with the exception of in the 2017 Earth Investigations Consultants Geotechnical Investigation when slight seepage perched at the top of bedrock 3' below the ground surface B-2 in the lower northeast corner (approx. site elevation 68), well below subdrains on neighboring property. Numerous other borings encountered no ground water to support pervasive springs on the project site.

As listed above, the Project Geotechnical Engineer has submitted a Geotechnical Plan Review letter (Attachment C6), dated May 12, 2022, stating that he has reviewed the geotechnical aspects of the Drainage Plan and Landscape Improvement Plan, and found the plans to be in general conformance with the recommendations presented in the geotechnical study report performed for the current project. Additionally, Mitigation Measure 10 requires, at the time of building permit application for final County peer review, that the Project Geotechnical Consultant review relevant aspects of the project, including drainage improvements, submit an updated geotechnical report with supplemental recommendations, design criteria, and supporting data, and for the applicant to incorporate geotechnical recommendations and design criteria into project plans to mitigate site constraints as identified by the Project Geotechnical Consultant. Therefore, as proposed and mitigated, potential substantial adverse effects related to landslides would be reduced to a less than significant level.

Sources: See sources listed in this Section.

v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X
Discussion: The project site is not located on or adjacent to a coastal cliff or bluff. Source: County GIS Maps.				
7.b. Result in substantial soil erosion or the loss of topsoil?		X		

Discussion: In an email dated May 13, 2022, the Project Geotechnical Engineer states that there are no areas of existing significant unmitigated soil erosion within the area of influence to the project site.

The project includes earthwork of 880 cubic yards (c.y.) of cut and 90 c.y. of fill, with a total area of land disturbance of less than 1 acre (14,369 sq. ft.). The applicant proposes an Erosion Control Plan which includes measures that would contain and slow run-off, while allowing for natural infiltration. Due to the potential for erosion and sedimentation during land disturbing and earth-moving activities, the following mitigation measures have been included.

As stated above, the Project Geotechnical Engineer has submitted a Geotechnical Plan Review letter (Attachment C6), dated May 12, 2022, stating that he has reviewed the geotechnical aspects of the Drainage Plan and Landscape Improvement Plan, and found the plans to be in general conformance with the recommendations presented in the geotechnical study report performed for the current project. Staff has added Mitigation Measure 10 to require the Project Geotechnical Engineer to review proposed landscape irrigation at the site to minimize infiltration or drainage which may have a negative impact to site stability. To prevent unauthorized/unpermitted use of fill on the subject site or other off-site properties, staff has added Mitigation Measure 11. Mitigation Measures 12 and 13 require revision of the Erosion Control Plan to include additional stormwater pollution prevention measures and to require compliance with the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines." Mitigation Measures 14 and 15 require implementation and monitoring of erosion control measures throughout the term of the grading permit and building permit.

Mitigation Measure 11: Prior to issuance of the grading permit hard card, the applicant shall demonstrate that all cut spoils will be hauled off-site to a County-approved location.

Mitigation Measure 12: Prior to the issuance of the building permit for the residence, the applicant shall revise the Erosion Control Plan to include the additional measure as follows, subject to the review and approval of the Community Development Director:

Construction Entrance: The Project Civil Engineer shall propose a method for stabilizing the area of the existing driveway (access easement) that will be re-graded on APN 051-022-250, while still allowing access over the driveway by the neighbors. The applicant shall move the temporary parking area, storage container, construction office, and sanitation unit to an area which does not block the construction entrance.

Mitigation Measure 13: The applicant shall adhere to the San Mateo County-wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

a. Delineation with field markers 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 (on and off-site) and maintenance of erosion control measures continuously between October 1 and April 30. Stabilization shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as re-vegetating disturbed areas with plants propagated from seed collected in the immediate area.

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 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 applications 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 site shall be clear and running slowly at all times.

Mitigation Measure 14: Once approved, erosion and sediment control measures of the revised Erosion Control Plan shall be installed prior to beginning any site work and maintained throughout the term of grading and construction, until all disturbed areas are stabilized. Failure to install or maintain these measures will result in stoppage of construction until corrections have been made and fees paid for staff enforcement time. Revisions to the approved erosion control plan shall be prepared and signed by the engineer and submitted to the Building Inspection Section.

Mitigation Measure 15: It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.

Source: Project C3C6 form, Project Plans.

7.c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, severe erosion, liquefaction or collapse?		X		

Discussion: Regarding potential for landslide and erosion, see discussion in Sections 7.a and 7.b, above. Liquefaction, lateral spreading, subsidence, and collapse were not identified as potential geological concerns by the Project Geologist or Project Geotechnical Engineer.

Source: See source list in Section 7.a.

7.d. Be located on expansive soil, as defined in Table 18-1-B of Uniform Building Code, creating substantial direct or indirect risks to life or property?		X		

Discussion: The 2020 Geotechnical Report Update prepared by Atlas Geosphere Consultants, Inc., provide recommendations for construction as highly expansive colluvium and undocumented fill may be encountered. Recommendations from CSA and Atlas Geosphere Consultants, Inc. are included as Mitigation Measures 9 and 10.

Source: See source list in Section 7.a.

7.e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?			X	

Discussion: The 2021 Supplemental Engineering Geologic Study, OWTS, prepared by Atlas Geosphere Consultants, Inc., states that, given the apparent satisfactory OWTS performance on neighboring residential properties, it is their opinion that operation of the proposed OWTS over the project lifetime presents a Low Risk for surfacing of effluent on the descending site slope below the proposed/improved driveway. In addition, they judge the proposed OWTS presents a Low Risk for contaminating water quality in the site slope repair subdrain system adequately located approximately 70 feet downslope from the Primary Leachfield (PL) and approximately 80 feet from the Expansion Leachfield (EL) (Plates 2 and 3). Similarly, the proposed PL and EL are respectively located approximately 170 and 102 feet from the southern margin of the slope repair subdrain system spanning 13 Los Cerros into 738 Loma Court (Plate 3).

As discussed in Section 7.a, the proposed location of the septic system has been reviewed by the Project Geologist and Geotechnical Engineer as well as by the County's Geologist and Geotechnical Engineer, and received preliminary approval from County Environmental Health Services. With the implementation of mitigation measures as discussed in this Section, the potential for soils to be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems is less than significant.

Source: Project plans

7.f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Discussion: Mitigation Measure 22 requires that, in the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery, County staff shall be notified, and the applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. As mitigated, the project would result in less than significant impacts related to the direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.

Sources: Standard condition.

8. CLIMATE CHANGE. Would the project:

	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
8.a. Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?		X		

Discussion: Greenhouse Gas Emissions (GHG) include hydrocarbon (carbon monoxide; CO2) air emissions from vehicles and machines that are fueled by gasoline. Grading involves GHG emissions mainly from exhaust from vehicle trips (e.g., construction vehicles and personal cars of construction workers, and operation of grading equipment). Due to the site's hilly, suburban location and assuming construction vehicles and workers are based largely in city or larger urban areas, potential project GHG emission levels from construction would be increased from general levels.

The project includes earthwork of 880 cubic yards (c.y.) of cut and 90 c.y. of fill. Excavated materials would be hauled off-site to an approved location, requiring off-haul of 880 c.y. (approximately 88 truckloads). At this time, the applicant proposed to haul the spoils to Guadalupe Rubbish Disposal Facility in San Jose (approximately 34 miles from the project site). The project would also require importation of drain rock and aggregate rock, however the volume of imported rock is also anticipated to be small.

To ensure new development projects are compliant with the County's Energy Efficiency Climate Action Plan (EECAP), the County provides the EECAP Development Checklist. According to the Applicant-completed EECAP Development Checklist (Attachment H), the project incorporates several EECAP measures, including tree plantings to provide shade, non-propane heating, CALGreen Tier 1 efficiency standards, use of "cool" exterior surfaces, solar photovoltaic system, pre-wired solar, use of smart water meters, compliance of construction equipment with BAAQMD guidance for idling, and electrification of outdoor household equipment. The project would be required to comply with the California Green Building Standards Code (CALGreen).

While the above described measures would reduce GHG emissions associated with project construction and operation, the BAAQMD encourages lead agencies to incorporate Best Management Practices (BMPs) to reduce GHG emissions during construction, including, but are not limited to: using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet; using local building materials of at least 10 percent; and recycling or reusing at least 50 percent of construction waste or demolition materials. These Best Management Practices have been included in Mitigation Measure 17 in order to further reduce project-related GHG emissions.

Compliance with and/or consideration of EECAP and BAAQMD measures is required in order to reduce project-related GHG emissions.

Mitigation Measure 16: At the time of building permit application, the applicant shall demonstrate compliance with the measures indicated on the applicant-completed EECAP Development Checklist (Attachment H) or equivalent measures, to the extent feasible. Such measures shall be shown on building plans.

Mitigation Measure 17: At the time of building permit application, the applicant shall demonstrate compliance with the following measures, to the extent feasible, where such measures shall be shown on building plans:

a. BAAQMD BMP: Use alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;
b. BAAQMD BMP: Use local building materials of at least 10 percent;
c. BAAQMD BMP: Recycle or reuse at least 50 percent of construction waste.

Source: Project plans; San Mateo County Energy Efficiency Climate Action Plan (EECAP); Bay Area Air Quality Management District, California Environmental Quality Act, Air Quality Guidelines, Updated May 2011.

8.b. Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Discussion: The project involves construction of a single family residence and associated driveway. The Bay Area Air Quality Management District (BAAQMD) exempts construction and operation of residential uses from permit requirements (Regulation 2-1-113).

Source: Bay Area Air Quality Management District

8.c. Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				X

Discussion: The project would not result in the loss of forestland or conversion of forestland to non-forest use, as the project site does not contain forestland.

Sources: County GIS Maps; Project plans

8.d. Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X

Discussion: The project is not located on or adjacent to a coastal cliff or bluff.

Source: County GIS Maps

8.e. Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X

Discussion: The project is not located on or adjacent to the San Francisco Bay or Pacific Ocean.

Source: County GIS Maps

8.f. Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project site is located in Flood Zone X (Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level), per FEMA Panel No. 06081C0282E, effective October 16, 2012. Source: County GIS Maps				
8.g. Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See discussion in Section 8.f. Source: County GIS Maps				

9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
9.a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?				X
Discussion: No such use is proposed. The project involves the construction and operation of a single-family residence. Source: Project plans				
9.b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
Discussion: No use involving the storage or release of hazardous materials is proposed. The project involves the construction and operation of a single-family residence. Source: Project plans				
9.c. Emit hazardous emissions or handle hazardous or acutely hazardous				X

materials, substances, or waste within one-quarter mile of an existing or proposed school?				
Discussion: No use involving the emission or handling of hazardous materials or waste is proposed. The project involves the construction and operation of a single-family residence. Source: Project plans; County GIS Maps				
9.d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
Discussion: The project site is not a listed hazardous materials site. Source: County GIS Maps				
9.e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?				X
Discussion: The project is not located within an airport land use plan or, where such a plan has not been adopted or within 2 miles of a public airport or public use airport. Source: County GIS Maps				
9.f. For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project site is located within a residential area and, based on a review of aerial satellite imagery, is not within the immediate vicinity of a private airstrip. Source: County GIS Maps				
9.g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
Discussion: The project involves the construction and operation of a single-family residence only and would not permanently or significantly impede access on existing public roads. However, temporary construction street parking may impede pedestrian and vehicle access on nearby narrow, windy roads. Mitigation Measure 18 has been added should on-street construction vehicle parking become necessary.				

Mitigation Measure 18: Any and all project-related on-street construction parking is subject to review and approval by the Project Planner and the County Department of Public Works. Prior to issuance of the building permit, the applicant shall show location of all on-street construction parking on plans submitted for the building permit application. Sources: Project plans, County GIS Maps				
9.h. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	
Discussion: The project site is located within a designated State Responsibility Area (SRA) Very High fire hazard zone. Requirements pertaining to the fire rating of exterior building materials in fire severity zones are incorporated into the adopted Fire Code. Compliance with applicable requirements will be reviewed during the building permit application process and confirmed prior to issuance of a building permit. Source: County GIS Maps.				
9.i. Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project site is located in Flood Zone X (Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level), per FEMA Panel No. 06081C0282E, effective October 16, 2012. Source: County GIS Maps.				
9.j. Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: See discussion in Section 9.i. Source: County GIS Maps.				
9.k. Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See discussion in Section 9.i. Source: County GIS Maps.				

10.	**HYDROLOGY AND WATER QUALITY**. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
10.a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?		X		
Discussion: Regarding the potential impact of construction-related erosion and sedimentation to water quality, please see discussion in Section 7.b, above. Regarding potential post-construction impacts to water quality, see Section 10.d, below. Source: Project plans; See Section 7.a for source list.					
10.b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
Discussion: While the project would involve the construction of impervious surfaces, most of the project site will remain pervious. The project would be connected to public water system, California Water Service - San Carlos, for domestic water service and would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Source: Project plans					
10.c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
	i. Result in substantial erosion or siltation on- or off-site;			X	
Discussion: According to the project Hydrology Study, the Gross Lot Area of the project site is 18,122 sq. ft. (0.416 acre). The Existing Site Impervious Area is 2,638 sq, ft. (0.061 acre). The Proposed Site Impervious Area is 4,294 sq. ft. (0.099 acre). The Net Change of Impervious Area is +1,656 sq. ft. (+ 0.038 acre).					

The project could potentially alter the existing drainage pattern of the site or area. The project proposes new drainage facilities, which have been reviewed by the County's Planning and Building Department's Drainage Section, to handle post-construction drainage from the house other new impervious surfaces. As a standard building permit requirement, a site drainage plan is required that demonstrates how roof drainage and site runoff will be directed to an approved location. In compliance with the County's Drainage Manual, this plan must demonstrate that post-development flows and velocities to adjoining private property and the public right-of-way shall not exceed those that existed in the pre-developed state.

Additionally, Mitigation Measure 10 requires, at the time of building permit application for final County peer review, that the Project Geotechnical Consultant review relevant aspects of the project, including drainage improvements, submit an updated geotechnical report with supplemental recommendations, design criteria, and supporting data, and for the applicant to incorporate geotechnical recommendations and design criteria into project plans to mitigate site constraints as identified by the Project Geotechnical Consultant.

Project compliance with these regulations would prevent the substantial alteration of existing drainage patterns of the site and area. The project does not involve alteration of the course of a stream or river.

Sources: Project C3C6 form, Project Site Plan and Drainage Plan.

	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			X	

Discussion: Please see Section 10.c.i for discussion. The project would not result in the alteration of the course of a stream or river.

Sources: Project plans

	iii. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	

Discussion: Please see Section 10.c.i, above, for discussion.

Sources: Project plans

10.d.	Significantly degrade surface or groundwater water quality?			X	

Discussion: An Engineering Geologic Consultation by Steven F. Connelly, C.E.G. of 738 Loma Court, APN 051-022-310, submitted by a neighbor, includes a review of previous investigations at the site, as well as a 2021 Geotechnical Peer Review letter by CSA for the OWTS, and states that effluent from the adjacent proposed leachfield system should not be allowed to contaminate natural spring water on 738 Loma Court or contribute to the drainage system of the landslide repair at 738 Loma Court and should be carefully assessed.

The 2021 Atlas Geosphere Consultants, Inc., Supplemental Engineering Geologic Study, OWTS, submitted by the applicant states that, given the apparent satisfactory OWTS performance on

neighboring residential properties, is their opinion operation of the proposed OWTS over the project lifetime presents a Low Risk for surfacing of effluent on the descending site slope below the proposed/improved driveway.

In addition, they judge the proposed OWTS presents a Low Risk for contaminating water quality in the site slope repair subdrain system adequately located approximately 70 feet downslope from the Primary Leachfield (PL) and approximately 80 feet from the Expansion Leachfield (EL) (Plates 2 and 3). Similarly, the proposed PL and EL are respectively located approximately 170 and 102 feet from the southern margin of the slope repair subdrain system spanning 13 Los Cerros into 738 Loma Court (Plate 3).

As discussed in Section 7a., the applicant has submitted comprehensive, site-specific reports, including subsurface exploration and testing, for the proposed residence and septic system, which have reviewed by the Project Geologist and Geotechnical Engineer as well as by the County's Geologist and Geotechnical Engineer, and received preliminary approval from County Environmental Health Services.

With the implementation of mitigation measures as discussed in Section 7, potential project impacts related to degraded surface or groundwater water quality is less than significant.

Sources: Project plans

10.e.	Result in increased impervious surfaces and associated increased runoff?			X	

Discussion: Please see Section 10.c.i for discussion.

Sources: Project plans

	iv. Impede or redirect flood flows?				X

Discussion: The project would not impede or redirect flood flows There is no work proposed within an existing drainage channel or creek.

Sources: Project plans

10.f.	In flood hazard, tsunami, or seiche zones, create or contribute runoff water which would risk release of pollutants due to project inundation?				X

Discussion: The site is not located within proximity of a flood hazard, tsunami, or seiche zone.

Sources: Project plans

10.g.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Discussion: The site is not located within the area of a water quality control plan or sustainable groundwater management plan. The proposed OWTS has received preliminary approval from County Environmental Health Services.

Sources: Project plans

11. LAND USE AND PLANNING. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a. Physically divide an established community?				X
Discussion: The project proposes a new residential to be located within an existing residential neighborhood. Development of the property with a residential use would not result in the physical division of an established community. Sources: County GIS Maps				
11.b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X
Discussion: The project complies with the R-1/S-91/DR Zoning District, the County's Local Coastal Program, and the County's General Plan. Source: County GIS Maps				
11.c. 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)?				X
Discussion: The site is a vacant parcel located at the end of an existing driveway. The site will be served from the water main in Los Cerros Road. The site would be served by an on-site wastewater treatment system, that would not be used by any other properties. Sources: Project plans; County GIS Maps				

12. MINERAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
12.a. Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: The project does not involve any mining or extraction of minerals. Sources: Project plans				
12.b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
Discussion: The project would not affect any nearby mineral resource recovery site, if such a site should exist nearby. Sources: Project plans; County GIS Maps				

13. NOISE. Would the project result in:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
13.a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
Discussion: The project will generate additional non-substantial, temporary noise associated with grading and construction. However, such noises will be temporary, where volume and hours are regulated by Section 4.88.360 (Exemptions) of the County Ordinance Code. Sources: Project plans				
13.b. Generation of excessive ground-borne vibration or ground-borne noise levels?			X	
Discussion: Per the 2013 Earth Investigations Consultants Geotechnical Investigation, the proposed foundation will be a drilled pier foundation, not a pile-driven pier foundation. Mitigation Measure 19 prohibits use of a pile-driven pier foundation. As proposed and mitigated, the project				

would not result in the generation of excessive ground-borne vibration or ground-borne noise levels.

Mitigation Measure 19: The project shall not use a pile-driven pier foundation.

Sources: Project plans

12.e. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?				X

Discussion: The project site is not in the vicinity of a private airstrip. Please see discussion in Section 9.e, above.

Sources: Project plans; Planning GIS Map.

14. POPULATION AND HOUSING. Would the project:

	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
14.a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X

Discussion: Please see discussion in Section 11.c, above.

Sources: Project plans

14.b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion: The project site is an undeveloped, residential parcel and proposed improvements support this use. The project would provide one additional single-family residential unit of housing and would not displace any existing housing.

Sources: Project plans

15.	**PUBLIC SERVICES**. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
15.a.	Fire protection?			X	
15.b.	Police protection?			X	
15.c.	Schools?			X	
15.d.	Parks?			X	
15.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?			X	
Discussion: The project involves the construction of one single-family residence on a legal parcel within an existing residential neighborhood in unincorporated Palomar Park, California. The project has been reviewed and preliminarily approved by the County Fire Department. The project site is located in an established residential neighborhood, where police, school and park services presently exist in this area. Sources: Project plans					

16.	**RECREATION**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
16.a.	Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
Discussion: The project involves the construction of one single-family residence on a legal parcel and would not significantly increase the use of existing neighborhood or regional parks or other recreational facilities. The parcel is legal, resulting from a Lot Line Adjustment (LLA 82-10) recorded on April 26, 1983. Sources: Project plans					
16.b.	Include recreational facilities or require the construction or expansion of				X

	recreational facilities which might have an adverse physical effect on the environment?				

Discussion: The project does not involve the construction of any recreational facilities. The project involves the construction of one single-family residence on a residential parcel and would not require the construction or expansion of existing recreational facilities.

Sources: Project plans

17. TRANSPORTATION/TRAFFIC. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a.	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and parking?			X	

Discussion: The project involves the construction of one single-family residence and an associated driveway and would result in a temporary increase in traffic levels during construction and a negligible permanent increase in traffic levels after construction. The proposed use is a private single-family residential use and provides adequate on-site parking. Therefore, the project does not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system.

Sources: Project plans, Local Coastal Program (LCP)

17.b.	Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) *Criteria for Analyzing Transportation Impacts*? *Note to reader: Section 15064.3 refers to land use and transportation projects, qualitative analysis, and methodology.*			X	

Discussion: CEQA Guidelines Section 15064.3, Subdivision (b) *Criteria for Analyzing Transportation Impacts,* describes specific considerations for evaluating a project's transportation impacts. It states that, generally, vehicle miles traveled is the most appropriate measure of transportation impacts. “Vehicle miles traveled” refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. The project involves the construction of one single-family residence within an existing residential neighborhood. The project will result in a temporary increase in traffic levels during construction and a negligible permanent increase in traffic levels after construction. Therefore, the project does not conflict with CEQA Guidelines Section 15064.3.

Sources: Project plans

17.c. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
Discussion: The project site involves the improvement of an existing gravel driveway accessed from Palomar Drive. The configuration of the driveway relative to Palomar Drive and two other properties which use the driveway would not change. Sources: Project plans				
17.d. Result in inadequate emergency access?		X		
Discussion: Mitigation Measure 12 requires the applicant to move the temporary parking area storage container, construction office and sanitation unit to an area which does not block the construction entrance. The project has been reviewed and preliminarily approved by the County Fire Department and would not result in inadequate emergency access. Sources: Project plans				

18. TRIBAL CULTURAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
18.a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				X
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)				X
Discussion: There are no structures on the property. The project site is not listed or eligible for listing in the California Register of Historical Resources. Furthermore, the project is not listed in a local register of historical resources, pursuant to any local ordinance or resolution as defined in Public Resources Code Section 5020.1(k).				

Sources: Letter from California Historical Resources Information System (CHRIS), dated February 1, 2022.				
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1. (In applying the criteria set forth in Subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.)				

Discussion: Staff requested a Sacred Lands file search of the project vicinity, which was conducted by the Native American Heritage Council (NAHC), and resulted in no found records (Attachment F2). Planning staff has consulted with the following tribes, as identified by the NAHC:

- Amah MutsunTribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the SF Bay Area
- The Ohlone Indian Tribe
- Wuksache Indian Tribe/Eschom Valley Band

On January 25, 2022, a letter was sent to each of the contact persons provided by the NAHC regarding the subject project requesting comment by February 25, 2022. A letter was also sent to the Tamien Nation, a traditionally or culturally affiliated tribe, as the tribe has requested in writing to the County, to be informed of proposed projects in the geographic project area, per Assembly Bill 52 for California Native American tribal consultation requirements. No comments were received to date.

Based on the NAHC's recommended best practices, the following mitigation measures are recommended to minimize any potential significant impacts to unknown tribal cultural resources.

Mitigation Measure 20: Should any traditionally or culturally affiliated Native American tribe respond to the County's issued notification for consultation, such process shall be completed and any resulting agreed upon measures for avoidance and preservation of identified resources be taken prior to implementation of the project.

Mitigation Measure 21: Any inadvertently discovered tribal cultural resources shall be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

Mitigation Measure 22: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery, County staff shall be notified, and the applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate.

Source: Native American Heritage Council (NAHC) letter, dated January 21, 2022.

19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
19.a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?		X		
Discussion: The project is required to demonstrate compliance with the County's Drainage Policy and Provision C.3.i of the San Francisco Bay Region Municipal Regional Permit, which require the construction of new site design measures to reduce stormwater runoff and associated negative environmental impacts. The project proposes a new on-site wastewater treatment system (OWTS) which will only serve the subject site. Please see Section 7a.iv for potential significant unless mitigated impacts related to construction and operation of the OWTS. The project will connect to California Water Service - San Carlos for domestic water service. California Water Service - San Carlos has reviewed the project plans and the project will be subject to service requirements. Therefore, the project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Source: Project Plans; County Planning GIS Maps.				
19.b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
Discussion: The project includes proposes to connect to the California Water Service - San Carlos for domestic water services. California Water Service - San Carlos has reviewed the project plans and the project will be subject to service requirements. Project landscape irrigation will be subject to the Water Efficiency Landscape Ordinance (WELO). Source: Project Plans				
19.c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
Discussion: Not applicable; Please see discussion in Section 19.a, above.				

Source: Project Plans				
19.d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
Discussion: The project involves the construction of one single-family residence and would result in a negligible increase in solid waste disposal needs. Source: Project Plans				
19.e. Comply with Federal, State, and local statutes and regulations related to solid waste?				X
Discussion: The project involves the construction of one single-family residence and would result in a negligible increase in solid waste disposal needs. Source: Project Plans				

20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	***Potentially Significant Impacts***	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
20.a. Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
Discussion: The project site is located within a designated State Responsibility Area (SRA) in a Very High fire hazard severity zone. Requirements pertaining to the fire rating of exterior building materials in fire severity zones are incorporated into the adopted Fire Code. Compliance with applicable requirements will be reviewed during the building permit application process and confirmed prior to issuance of a building permit. Source: County GIS Map.				
20.b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
Discussion: The site is steeply sloped. Please see discussion in Section 20.a. Source: County GIS Map.				

20.c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
Discussion: The project would not require any new roads, fuel breaks, emergency water sources, power lines or other utilities. The site is located at the end of an existing driveway. Also, new electrical line will be undergrounded. Please see discussion in Sections 20.a and 20.b. Source: County GIS Map.				
20.d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X
Discussion: Please see discussion in Sections 20.a and 20.b. Source: County GIS Map.				

21. MANDATORY FINDINGS OF SIGNIFICANCE.				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
21.a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
Discussion: Yes, as discussed in this document, the project has the potential to result in environmental impacts as discussed in this report. Implementation of mitigation measures included in this document would adequately reduce project impacts to a less than significant level. Source: Subject document.				

21.b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
Discussion: The project involves the construction and operation of a single-family residence within an existing residential neighborhood on a previously undeveloped property, located at the end of an existing driveway. Due to the infill nature of the proposed residential construction, proposed OWTS, and existing water service in the area, the project is not likely to result in a cumulatively considerable impact when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Source: Subject document.				
21.c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	
Discussion: As discussed in this document, the project could result in environmental impacts that could both directly and indirectly cause impacts on human beings. However, implementation of mitigation measures included in this document would adequately reduce project impacts to less than significant levels. Source: Subject document.				

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

AGENCY	YES	NO	TYPE OF APPROVAL
Bay Area Air Quality Management District		X	
CalTrans		X	
City		X	
Coastal Commission		X	
County Airport Land Use Commission (ALUC)		X	
Other: None		X	
National Marine Fisheries Service		X	
Regional Water Quality Control Board		X	

AGENCY	YES	NO	TYPE OF APPROVAL
San Francisco Bay Conservation and Development Commission (BCDC)		X	
Sewer/Water District: MWSD		X	
State Department of Fish and Wildlife		X	
State Department of Public Health		X	
State Water Resources Control Board		X	

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.	X	
Other mitigation measures are needed (as listed below):	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: The applicant shall replace the 2 significant exotic trees and 5 significant indigenous trees proposed for removal with a total of 5 replacement trees, to include minimum of three (3), 24" box Oak trees, with the remaining trees to be a minimum of 15 gallon in size. Prior to the issuance of the building permit for the residence, the Planting Plan shall be reviewed and subject to the approval of the Project Arborist and project planner.

Mitigation Measure 2: Prior to any land disturbance and throughout the grading operation, the applicant shall implement the tree protection measures consistent with the County's Significant Tree Ordinance in addition to the construction procedures and tree protection measures provided by the Project Arborist.

Mitigation Measure 3: Upon the start of excavation activities and through to the completion of the project, the applicant shall be responsible for ensuring that the following dust control guidelines are implemented:

a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. All vehicle speeds on unpaved roads shall be limited to 15 mph.

e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control

measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

h. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

i. Construction-related activities shall not involve simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously).

Mitigation Measure 4: Tightly woven fiber netting or similar material shall be used for erosion control or other purposes to ensure amphibian and reptile species do not get trapped. Plastic monofilament netting (erosion control matting) or similar material shall not be used. The applicant shall demonstrate compliance with this requirement in plans submitted at the time of building permit application.

Mitigation Measure 5: A pre-construction, migratory bird nesting survey shall be conducted prior to any proposed construction-related activities during the nesting bird season (February 1 to August 31). The survey shall be performed both in and within 250 feet of the proposed development area and the results reported to the County. If, for any reason, construction activities do not commence within 10 days of completion of the survey, the survey shall be repeated and results reported to the County. If active nests are discovered, no construction-related activities, including grading and tree removal, are allowed until birds have fledged from nests, as confirmed by a biologist.

Mitigation Measure 6: Although proposed project area itself has low possibility of containing unrecorded archaeological site(s), it is possible that subsurface deposits may yet exist or that evidence of such resources has been obscured by more recent natural or cultural factors such as downslope aggradation and alluviation and the presence of non-native trees and vegetation. Archaeological and historical resources and human remains are protected from unauthorized disturbance by State law, and supervisory and construction personnel therefore must notify the County and proper authorities if any possible archaeological or historic resources or human remains are encountered during construction activities and halt construction to allow qualified Archaeologists to identify, record, and evaluate such resources and recommend an appropriate course of action.

Mitigation Measure 7: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The cost of the qualified archeologist and any recording, protecting, or curating shall be borne solely by the project sponsor. The archeologist shall be required to submit to the Community Development Director for review and approval a report of the findings and methods of curation or protection of the resources. No further grading or site work within the area of discovery shall be allowed until the preceding has occurred. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

Mitigation Measure 8: The applicants and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains, whether historic or prehistoric, during grading and construction. In the event that any human remains are

encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

Mitigation Measure 9: Prior to the issuance of a building permit for site development, the applicant shall demonstrate compliance with the recommendations of the Project Geologist and Geotechnical Engineer, including but not limited to those pertaining to: 1) mitigation of undocumented fill in the proposed house development area, 2) treatment of fill along the proposed/improved driveway in accordance with the recommendations for grading and/or retaining wall construction presented in Appendix A of the 2020 Geotechnical Report Update and 3) supplemental recommendations to accommodate design and construction of the proposed swimming pool (Source: 2020 Atlas Geosphere Consultants, Inc., Geotechnical Report Update).

Mitigation Measure 10: Prior to the issuance of a building permit for site development, the applicant shall demonstrate compliance with the recommendations of the County's Geologist and Geotechnical Engineer, including but not limited to those pertaining to: 1) Close coordination with the Project Geotechnical Consultant in design of proposed foundations, retaining walls, drainage improvements, and landscape irrigation which may benefit project performance; 2) Submittal of an updated geotechnical report with supplemental recommendations, design criteria, and supporting data, as appropriate; and 3) Project design and final plans should incorporate geotechnical recommendations and design criteria to mitigate site constraints as identified by the Project Geotechnical Consultant (Source: Craig Stewart, CSA, email to County, dated August 28, 2020).

Mitigation Measure 11: Prior to issuance of the grading permit hard card, the applicant shall demonstrate that all cut spoils will be hauled off-site to a County-approved location.

Mitigation Measure 12: Prior to the issuance of the building permit for the residence, the applicant shall revise the Erosion Control Plan to include the additional measure as follows, subject to the review and approval of the Community Development Director:

Construction Entrance: The Project Civil Engineer shall propose a method for stabilizing the area of the existing driveway (access easement) that will be re-graded on APN 051-022-250, while still allowing access over the driveway by the neighbors. The applicant shall move the temporary parking area, storage container, construction office, and sanitation unit to an area which does not block the construction entrance.

Mitigation Measure 13: The applicant shall adhere to the San Mateo County-wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

a. Delineation with field markers 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 (on and off-site) and maintenance of erosion control measures continuously between October 1 and April 30. Stabilization shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as re-vegetating disturbed areas with plants propagated from seed collected in the immediate area.

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 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 applications 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 site shall be clear and running slowly at all times.

Mitigation Measure 14: Once approved, erosion and sediment control measures of the revised Erosion Control Plan shall be installed prior to beginning any site work and maintained throughout the term of grading and construction, until all disturbed areas are stabilized. Failure to install or maintain these measures will result in stoppage of construction until corrections have been made and fees paid for staff enforcement time. Revisions to the approved erosion control plan shall be prepared and signed by the engineer and submitted to the Building Inspection Section.

Mitigation Measure 15: It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.

Mitigation Measure 16: At the time of building permit application, the applicant shall demonstrate compliance with the measures indicated on the applicant-completed EECAP Development Checklist (Attachment H) or equivalent measures, to the extent feasible. Such measures shall be shown on building plans.

Mitigation Measure 17: At the time of building permit application, the applicant shall demonstrate compliance with the following measures, to the extent feasible, where such measures shall be shown on building plans:

a. BAAQMD BMP: Use alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet;
b. BAAQMD BMP: Use local building materials of at least 10 percent;
c. BAAQMD BMP: Recycle or reuse at least 50 percent of construction waste.

Mitigation Measure 18: Any and all project-related on-street construction parking is subject to review and approval by the Project Planner and the County Department of Public Works. Prior to issuance of the building permit, the applicant shall show location of all on-street construction parking on plans submitted for the building permit application.

Mitigation Measure 19: The project shall not use a pile-driven pier foundation.

Mitigation Measure 20: Should any traditionally or culturally affiliated Native American tribe respond to the County's issued notification for consultation, such process shall be completed and any resulting agreed upon measures for avoidance and preservation of identified resources be taken prior to implementation of the project.

Mitigation Measure 21: Any inadvertently discovered tribal cultural resources shall be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

Mitigation Measure 22: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery, County staff shall be notified, and the applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate.

DETERMINATION (to be completed by the Lead Agency).

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 Planning Department.
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 MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

(Signature)

July 2, 2022 — Date

Camille Leung, Project Planner — (Title)

ATTACHMENTS:

A. Vicinity Map

B. Project Plans

C. Geotechnical Reports provided by the Applicant:
   1. Supplemental Engineering Geologic Study, Onsite Wastewater Treatment System (OWTS), Proposed Single-Family Residential Development, 634 Palomar Drive, Redwood City, California, prepared by Atlas Geosphere Consultants, Inc., dated October 4, 2021.
   2. Geotechnical Report Update, Proposed Residential Development, 634 Palomar Drive, Redwood City, California, prepared by Atlas Geosphere Consultants, Inc., dated July 29, 2020.
   3. Geotechnical Investigation, Landslide Mitigation, Lower Slope at 634 & 636 Palomar Drive, Redwood City, California, prepared by Earth Investigations Consultants, Inc., dated June 16, 2017.
   4. Supplemental Geotechnical Investigation, Proposed Single Family Residence, 634 Palomar Drive, Redwood City, California, prepared by Earth Investigations Consultants, dated April 11, 2014.
   5. Geotechnical Investigation, Proposed Single Family Residence, 634 Palomar Drive, Redwood City, California, prepared by Earth Investigations Consultants, dated October 17, 2013.
   6. Geotechnical Plan Review, Civil and Landscape (only), prepared by Atlas Geosphere Consultants, Inc., dated May 12, 2022.

D. Reports and Comments provided by Neighbors:
   1. Letter from Palomar Park Owner's Association, dated October 28, 2021.
   2. Engineering Geologic Consultations, APN 051-022-180, 738 Loma Court, San Mateo County, California, prepared by Steven F. Connelly, C.E.G., dated August 10, 2021
   3. Comments on the Proposed Leach Field, Enea Property, 738 Loma Court, Redwood City, California, prepared by GeoForensics Inc., dated March 16, 2020
   4. Landslide Area, 0 Los Cerros APN 051-022-310, prepared by Kilik General Engineering, dated November 4, 2017.
   5. APN 051-022-301 (vacant) – Mueller, O'Neill, prepared by Lea & Braze Engineering, Inc., dated September 3, 2014

E. County Geotechnical Approval Letters
   1. Email from Craig Stewart, Cotton, Shires and Associates, Inc, to Sherry Liu (County Geotechnical Section), dated August 28, 2020.
   2. Supplemental Geotechnical Peer Review, RE: Onsite Wastewater Treatment System (OWTS), PLN2020-00251, 634 Palomar Drive, prepared by Cotton, Shires and Associates, Inc, dated November 5, 2021.

F. Cultural Resource Letters

1. Letter from California Historical Resources Information System, dated February 1, 2021.
2. Letter from Native American Heritage Council (NAHC), dated January 21, 2022.

G. Arborist Report for 634 Palomar Drive, Ca, prepared by Roy C. Leggit, III, dated December 12, 2020.

H. EECAP Development Checklist

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT F

Camille Leung

From: Denise Charlebois <decharlebois1@gmail.com>
Sent: Thursday, July 21, 2022 2:37 PM
To: Camille Leung
Subject: Mitigated Negative Declaration for 634 Palomar Dr (PLN2020-00251).

Dear Ms. Leung –

I have reviewed the prepared Neg Dec declaration for this project and have found it to be grossly lacking of critical and accurate information in multiple sections. I understand the County wants more housing however not all parcels in the County are buildable without significant neighborhood impacts and significant health and safety risks to surrounding properties and residents. Unfortunately, the County planners and geologists whom were most familiar with the volatility, hydrology and instability of this hillside have long retired an unable to provide special insight and knowledge of the area's dramatic history and unique issues.

I. Environmental Factors Potentially Affected

Traffic & Transportation

a. Your report leaves out the potential factor of a negative impact on traffic and transportation. Palomar Park has only one roadway into and out of the community. Traffic and the public roadway of Palomar Dr. was severely affected when pier drilling for a retaining wall was attempted by a previous owner on the hillside at 634 Palomar. The construction of the wall was abandon because so much water was erupting out of the hillside. The underground spring which runs through this parcel was diverted by the drilling and large amounts of water erupted out of the street and eroded the pavement. Multiple down hill driveways were also eroded. The water sheared across the roadway and even became icy is some instances. The water erupting out of the roadway effected traffic in a negative way and eroded private and public property for months. There are currently large cracks in Los Cerros which were not there before the attempted pier drilling on 634 Palomar. If grading and pier drilling is once again attempted on this parcel there is a 99% chance that a large amount of water will erupt again in the roadway and once again erode private driveways and become a traffic challenge and impact. There is no mitigation for this potential impact as the water flows underground and daylights off the subject property. The drainage swale in front of 634 Palomar currently has a visual flow of water running through it. This is a significant impact and potentially very dangerous and destructive to the entire neighborhood.

1. Aesthetics

a. Your report leaves out that the building of this house will affect the views of the property at 730 Loma Ct and 722 Palomar Dr.

7. Geology/Soils

a. Your CEQA declaration significantly underplays and leaves out critical information regarding the long history of dangerous and destructive landslides on and directly adjacent to this parcel. Three homes have been destroyed over the years at this hillside location. Your checklist report does not mention this. The past landslides have been repaired to only fail again. The most recent landslides were enormous and full mature trees were swept away with the lava like flow of mud. The public roadway of Los Cerros has been affected by each of these landslides. My house at 738 Loma Ct. also sustained foundation damage. There is a large retaining wall, (12' H x 50' W) above and slightly to the north of the 634 property. The wall retains the backyard soils and leach field of the property at 730 Loma Ct. The wall was damaged in the last series of landslides. Additional grading and subsequent disturbance of previous landslide sections as well as disrupting the underground spring will have a significant chance of impacting this wall. The impact of this wall failing is a major concern and would have a significant impact on the property at 730 Loma Ct. as well as the detached garage at 738 Loma Ct. Your report underplays and neglects to mention that Kilik Engineering, Geoforensics, Steven Connelly C.E.G. as well as Jeff Lea of Lea & Braze all warn of disturbance of soils and vegetation within 50ft of any of the previous landslides and the critical avoidance of adding any irrigation water or OWTS water to these hillsides above 20ft high from the level of Los Cerros. These professionals have first hand knowledge of the dangerous instability issues and hydrology and their opinions should be adhered to. The CEQA declaration also lacks critical information regarding the landslide at 634 Palomar Dr. Building over such significant hydrology will indeed have major impacts. We have already seen the impacts from other attempts to conduct limited grading and drilling with Cotton & Shires, Geosphere and Lea & Braze approved plans and engineering and it was a complete failure due to the heavy spring flow that is impossible to capture.

10. Hydrology

a. Your CEQA declaration does not include a vital report which I submitted to you. The hydrology report by

Balance Hydrologic of 2014 examines and lays out the existence of a significant ground water supply which runs

from the top of Loma Ct. thru the 634 Palomar parcel as well as the 738 Loma Ct and 0 Los Cerros parcel. This ground water is the basis for the instability of the all the parcels. The year round flow of spring water is critical and when altered by piers, grading drilling poses a significant impact to multiple surrounding structures, downhill properties, roadways. The spring daylights at Los Cerros and at 634 Palomar. This is clear pure Aquaphor water and potential contamination by the OWTS is predicted by Kilik Engineering, Jeff Lea of Lea & Braze, Geoforensics and Steven Connelly C.E.G. The constant flow of water is also a large issue because grading, drilling, piers, retaining walls alter the flow of the water. The water flows freely underground throughout the entire hillside of the 634 Palomar and 0 Los Cerros. The water cannot be all captured by drains. Altering the path of water can and will have negative impacts on all surrounding properties. There is current evidence that water is accumulating at the toe of the slide on 0 Los Cerros and another small landslide in 2022 occurred on 0 Los Cerros higher on the slope. This landslide is currently active and unmitigated. Your declaration states that the Geotechnical Engineer as of May 13, 2022 states there are no significant unmitigated soil erosion within the sphere of influence for the project site. This statement is untrue and only confirms that the Geologists and Engineers are not well versed with the current and most recent landslide, hydrology and instability issues of this area.

In the County's own document, it states that within the CEQA declaration; "All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts." The declaration prepared **does not** reflect the "whole action involved" in many sections of the checklist. Most of the checklist prepared seems to insert cookie cutter answers. There are no special mitigations inserted to mitigate the landslide and underground spring water flow. This CEQA checklist and its answers seem to deviate away from all the land instability issues, hydrology issues and actually has more information and content on the potential for archeological artifacts than it does on the multitude of significant landslides and the three homes that have been destroyed in the past.

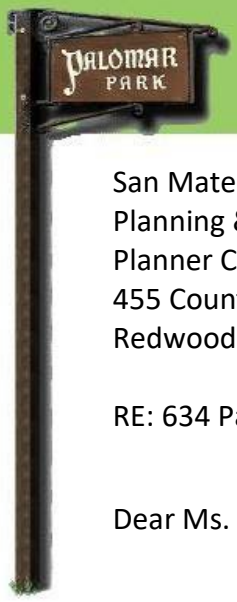
I understand the County would like to infill all vacant parcels with homes, however by underplaying the CEQA checklist declaration the County potentially exposes the neighborhood of Palomar Park (especially the 6-7 properties who are adjacent or downhill from this parcel. The ground instability and large volume of year round spring water can not be ignored. None of the mitigations the County has listed remove Potentially Significant Impact status of the environmental impact this project would have. This is why there are more than 5 professionals in the field of engineering and geology who warn against disturbing such a volatile hillside.

I feel the CEQA declaration is not accurate and needs to be recompleted in a more through and accurate way. I would like to know the exact next steps in having the County amend and edit the CEQA checklist declaration to reflect accurate answers and incorporate a "whole action involved" off site, on site, indirect, direct and cumulative impacts.

Denise Enea

738 Loma Ct.

650 740-9883



San Mateo County
Planning & Building Department
Planner Camille Leung
455 County Center
Redwood City, CA 94063

July 22, 2022

RE: 634 Palomar Dr. PLN-2020-00251 CEQA

Dear Ms. Leung,

The Palomar Park Owners' Association has reviewed the CEQA declaration prepared by SMC Planning. We are very disappointed at the lack luster detail and accuracy of the declaration and its answers. The Board and the Palomar Park residents have quite a bit of historical knowledge regarding Palomar Park. The volatile destructive history, ground instability and problematic hydrologic attributes of the Los Cerros/Palomar hillsides are something we have endured and are very familiar with.

In Summary the following sections of the CEQA declaration are either missing critical information or inaccurate.

- Traffic/Roadways/Transportation - Missing completely

- Aesthetics - The removal of so many trees is not only a major aesthetic issue it also becomes a Geology/Soils issue. Removing mature trees upsets the erosion/geology/hydrology balance. We know this because the adjacent vacant parcel had extensive mature vegetation removed and it triggered a large landslide in this hydrologic zone. This was warned against in a previous Lea & Braze Engineering letter and the County ignored the recommendation of the engineer and subsequently severe property and structure damage was incurred.

- Geology/Soils – This section of the CEQA declaration is very understated and does not provide the critical warnings by geologists and engineers who are very familiar with the area and conducted extensive projects. The declaration doesn't mention the numerous landslides along Los Cerros and the multitude of hydrologic issues at 634 Palomar Dr. It doesn't mention the multiple structures that have been destroyed due to large reoccurring landslides. There is SMC historical documentation that three homes have been previously destroyed on the 634 Palomar and Los Cerros parcels due to landslides.

- Hydrology - There is a documented prolific spring that flows from Loma Rd. down through the hillside of Palomar Park and daylights in various parcels along Loma Ct., Palomar Dr. and

Los Cerros. The prolific spring is flowing and visible throughout the entire year and even now during a drought there is active water flow. The County CEQA declaration ignores that disruption of the springs flow path will have a significant impact to multiple properties and the public roadway. The spring water flows underground like a river and daylights in various places. The CEQA declaration also does not address well enough the potential for OWTS contamination of this pure spring water which flows throughout the creeks, daylights into various drainage swales and which wildlife use as a source of water.

The Palomar Park Board has knowledge of the various professional engineers and geologists who warn against building at 634 Palomar or within 50 – 100 feet of any of the previous landslides in this area. We are disappointed that the County is ignoring this critical information and only depending on the applicant for information of potential significant impacts.

It seems unconceivable that with the knowledge of existing substantial documentation, reports, professional recommendations and historical SMC documentation of significant structure damage, that SMC Planning would even consider the development of a single-family home within such a volatile hillside and endanger and compromise further the surrounding properties.

We would like to understand your reasoning for ignoring the reports and not engaging to seek information with the engineers, geologists and hydrologic professionals who have actually conducted work on a multitude of these landslides and understand the magnitude of the instability due to the hydrologic factors.

Preparing a CEQA declaration that is not truthful, and which does not address all these well known issues is negligent and does not follow the legal CEQA process which is intended to review all the potential impacts of the **whole project**. This includes off site impacts, cumulative impacts, indirect, direct and project level impacts. The Palomar Park Board is deeply concerned that the County is turning a blind eye to obvious foreseeable significant impacts which will likely affect many neighboring structures and properties, contaminate and disrupt our native spring water flow and quality, our public roadways and our public safety.

The Palomar Park Owners' Association is not in agreement with many of the answers within this CEQA declaration and feel it is lacking quite a bit of pertinent informative data. This CEQA declaration should not be recorded due to lack of information and inaccuracies.

Please mail any responses, notices or project documentation to: PPO 419 Palomar Dr. Palomar Park, CA 94062 and email to Palomarnews@gmail.com

Sincerely,

Rich Landi, President
Palomar Park Owners' Association

Cc.

Steve Monowitz, Director of Planning
Don Horsley, SMC Board of Supervisors