

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

DATE: April 25, 2018

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Grading Permit for 590 cubic yards (c.y.) of grading to construct a new single-family residence and basement, and the removal of three (3) significant trees, on the property located at 900 Menlo Oaks Drive in the unincorporated Menlo Oaks area of San Mateo County.

County File Number: PLN 2017-00262 (Mahadevan)

PROPOSAL

Proposal as Presented to the Planning Commission on February 14, 2018

On February 14, 2018, the Planning Commission considered an appeal of staff's decision to approve of a Grading Permit for 590 c.y. of grading, consisting of 540 c.y. of cut and 50 c.y. of fill, in order to construct a new 5,043 sq. ft. single-family residence with a 990 sq. ft. subterranean basement. The grading and construction of the residence proposed at that time involved the removal of three (3) significant trees including one 20.9" diameter at breast height (dbh) Irish yew tree located mid-parcel, one 20.7" dbh coast live oak tree located mid-parcel in the left side yard, one 28.7" dbh incense cedar tree located in the front left yard of the subject property, as well as the removal of ten non-significant sized trees of varying species located throughout the parcel.

The appeal contended that: (1) the noticing for tree removal was inadequate, (2) the house can be redesigned or moved to save the 20.7" dbh coast live oak tree and a smaller 6.9" dbh coast live oak tree proposed for removal, (3) too many trees in general are proposed for removal, and (4) the tree replacement standards for this project are inadequate.

The Planning Commission voted 3-1 to continue the item to a future date to allow staff to draft findings for denial. This action was taken because the Planning Commission could not make the findings required by the Significant Tree Regulations to authorize the removal of the 20.7" dbh coast Live Oak tree (Tree #24). Specifically, a majority of the Planning Commission was unable to conclude that the removal of this tree is necessary to allow the reasonable economic or other enjoyment of the property given that the development could be redesigned to retain Tree #24.

Revised Grading Permit Proposal

The applicant has submitted a revised grading plan in response to the comments and concerns raised during the February 14, 2018 Planning Commission hearing. These plans eliminate the need to remove Tree #24 by reducing the length of the proposed basement light well and reducing the extent of the rear patio to avoid impacting the tree's roots. The applicant has requested that the Planning Commission approve these revised plans and deny the appeal.

RECOMMENDATION

That the Planning Commission approve the Grading Permit application, County File Number PLN 2017-00262, by making the required findings and imposing the conditions of approval found in Attachment A of this staff report. Findings to support denial of the project and approval of the appeal are found in Attachment B.

SUMMARY

At its February 14, 2018 hearing, the Planning Commission considered the appeal of the Grading Permit and heard public comment from the appellant, the Menlo Oaks District Association (MODA), and the Menlo Oaks Tree Advocacy (MOTA). Concerns were raised regarding the removal of one 20.7" dbh coast live oak, and overall loss of canopy within the Menlo Oaks neighborhood.

In response to these concerns, the landowner identified relocation and/or redesign efforts that would be necessary in order to retain the oak tree and was agreeable to providing additional replacement trees. The arborist discussed the condition of the existing oak tree, its conflict with adjacent trees, and its continued lean toward the existing residence, characterizing it having a moderate risk of failure.

At that hearing, the Planning Commission determined that it could not make the findings required by the Significant Tree Regulations to authorize the removal of the oak tree. Specifically, a majority of the Planning Commission was unable to conclude that the subject significant oak tree posed an immediate risk to the proposed structure, or that retaining the oak tree would significantly impact the reasonable economic or other enjoyment of the property given that the development could be redesigned to retain the oak tree. Accordingly, the Planning Commission subsequently determined that the proposed grading and tree removal did not adhere to the provisions of the Significant Tree Ordinance, and voted 3-1 to continue the item to a future date to allow staff to prepare findings of denial.

Since that hearing, the applicant has submitted revised plans that preserve the oak tree of concern. Staff is therefore presenting the Planning Commission with the findings for denial as previously directed, as well as the option of conditionally approving a grading permit for the revised project submitted by the applicant.

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

DATE: April 25, 2018

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Grading Permit, pursuant to Section 9280, for 590 cubic yards (c.y.) of grading to construct a new single-family residence and basement, and the removal of three (3) significant trees, on the property located at 900 Menlo Oaks Drive in the unincorporated Menlo Oaks area of San Mateo County.

County File Number: PLN 2017-00262 (Mahadevan)

PROPOSAL

Background

On February 14, 2018, the Planning Commission considered an appeal of staff's decision to approve of a Grading Permit for 590 c.y. of grading, consisting of 540 c.y. of cut and 50 c.y. of fill, in order to construct a new 5,043 sq. ft. single-family residence with a 990 sq. ft. subterranean basement. The grading and construction of the residence proposed at that time involved the removal of three (3) significant trees including one 20.9" diameter at breast height (dbh) Irish yew tree located mid-parcel, one 20.7" dbh coast live oak tree located mid-parcel in the left side yard, one 28.7" dbh incense cedar tree located in the front left yard of the subject property, as well as the removal of ten non-significant sized trees of varying species located throughout the parcel.

The appeal contended that: (1) the noticing for tree removal was inadequate, (2) the house can be redesigned or moved to save the 20.7" dbh coast live oak tree and a smaller 6.9" dbh coast live oak tree proposed for removal, (3) too many trees in general are proposed for removal, and (4) the tree replacement standards for this project are inadequate.

The Planning Commission voted 3-1 to continue the item to a future date to allow staff to draft findings for denial. This action was taken because the Planning Commission could not make the findings required by the Significant Tree Regulations to authorize the removal of the 20.7" dbh coast Live Oak tree (Tree #24). Specifically, a majority of the Planning Commission was unable to conclude that the removal of this tree is necessary to allow the reasonable economic or other enjoyment of the property given that the development could be redesigned to retain Tree #24.

Revised Grading Permit Proposal

The applicant has submitted revised grading plans in response to the comments and concerns raised during the February 14, 2018 Planning Commission hearing. These plans eliminate the need to remove Tree #24 by reducing the length of the proposed basement light well and reducing the extent of the rear patio to avoid impacting the tree's roots. The applicant has requested that the Planning Commission approve these revised plans and deny the appeal.

RECOMMENDATION

That the Planning Commission approve the Grading Permit application, County File Number PLN 2017-00262, by making the required findings and imposing the conditions of approval found in Attachment A of this staff report. Findings to support denial of the project and approval of the appeal are found in Attachment B.

BACKGROUND

Report Prepared By: Laura Richstone, Project Planner, Telephone 650/363-1829

Appellant: John Danforth

Applicant: Eugene Sakai and Sean Rinde for Studio S Squared Architecture

Owner: Rohan Mahadevan

Location: 900 Menlo Oaks Drive, Menlo Oaks

APN: 062-160-090

Parcel Size: 31,193 square feet

Existing Zoning: R-1/S-100 (Single-Family Residential/Menlo Oaks Combining District)

General Plan Designation: Low Density Residential Urban

Sphere-of-Influence: Menlo Park

Existing Land Use: Single-Family Residential

Water Supply: California Water Service – Bear Gulch

Sewage Disposal: West Bay Sanitary District

Flood Zone: Zone "X" (Area of Minimal Flooding); Panel No. 06081C0306E, effective date October 16, 2012

Setting: The subject parcel is located in the unincorporated residential community of Menlo Oaks. The subject parcel is relatively flat, approximately 100 feet wide, heavily forested, and developed with an existing single-family residence. A total of 47 trees of varying species consisting of 25 significant-sized trees and 22 non-significant sized trees are located throughout and immediately adjacent to the 31,193 sq. ft. parcel. Adjacent parcels are similarly forested and developed with single-family residences.

Chronology:

<u>Date</u>	<u>Action</u>
August 21, 2017	- Application submitted for 590 c.y. of grading and the removal of 3 significant and 10 non-significant sized trees to construct a new single-family residence and subterranean basement.
September 29, 2017	- Application is deemed complete.
October 2, 2017	- Public notice sent out. Public comment period opens.
October 18, 2017	- Public comment period closed. Seventeen comments were received by Planning staff.
October 18, 2017	- Planning staff requests a revised arborist report to address issues raised during the public comment period.
October 25, 2017	- Applicant submits revised arborist report dated October 24, 2017.
November 10, 2017	- Project approved by the Community Development Director. Decision letter sent to the applicant and all interested parties who had comments on the project.
November 27, 2017	- Appeal filed by John Danforth.
February 14, 2018	- The Planning Commission votes 3-1 to continue the item and directed staff to draft findings of denial.
March 21, 2018	- Revised plans submitted for 565 c.y. of grading and the removal of 2 significant and 8 non-significant sized trees. This proposal saves oak Tree #24 by reducing the length of the basement light well.
April 25, 2018	- Planning Commission hearing.

DISCUSSION

A. KEY ISSUES

1. Summary of the February 14, 2018 Planning Commission Meeting

At its meeting, on February 14, 2018, the Planning Commission considered the appeal of the Grading Permit and heard concerns from the public regarding the removal of one 20.7" dbh coast live oak tree (Tree #24) located mid-parcel, in the area of the proposed basement light well, in association with the proposed earthwork. The appellant, members of the Menlo Oaks District Association (MODA), and members of the Menlo Oaks Tree Advocacy (MOTA) group also raised concerns regarding the overall removal of oak trees within the Menlo Oaks neighborhood at accelerated rates due to natural causes (e.g., bark beetle, aging) and residential construction projects resulting in the loss of tree canopy in the neighborhood. Regarding the proposed removal of Tree #24, members of the public raised concerns about insufficient analysis in the arborist report (lack of exploratory root trenching, root monitoring) and disagreed with arborist's and architect's conclusion that the tree posed a hazard to the existing development, that the proposed construction would negatively impact the tree, and that retention of the tree would negatively impact/create a hazard to the proposed residence. Additional concerns were raised regarding the inadequacy of the tree replacement requirements (three 15-gallon trees) and that no mechanism to monitor replacement trees is found within the Significant Tree Removal Ordinance. The appellant and members of MOTA and MODA stated that the proposed residence could be redesigned to retain Tree #24 and that a mixture of 15-gallon and 24-inch box size replacement trees would be necessary to adequately replace the lost canopy.

In response to concerns regarding the condition of Tree #24, the arborist noted that the current lean of the oak tree toward the existing residence, resulting from interference from the adjacent redwood trees, will continue and that this lean poses a risk of failure. In addition, the landowner and architect identified relocation and/or redesign efforts that would be necessary to retain the oak tree. They noted that a larger 27.9" dbh valley oak tree located at the front of the existing residence and additional oak and redwood trees located toward the rear of the property (six oak trees ranging from 12.5" dbh to 26.5" dbh; two redwood trees 32.1" dbh and 52.4" dbh) would be impacted if the proposed residence was shifted toward the street or rear property line. In considering a redesign to retain Tree #24, the architect noted that a redesign would impact the footprint of the residence and basement by 6 to 8 feet. Finally, the landowner stated that he is amenable to providing a greater quantity and size of replacement trees (five 15-gallon and two 24-inch box) but was unwilling to enter into a

maintenance and monitoring agreement since no such agreements are required by the Significant Tree Removal Ordinance.

2. Determination of the Planning Commission

After considering public comment, the Planning Commission requested clarification on the failure risk of Tree #24 (which the arborist indicated was a moderate risk), and discussed the potential reduction of the proposed basement light well. The Planning Commission did not determine that the tree posed an immediate risk to the proposed development, that retaining the oak tree would significantly impact the placement or size of potential development, or that the tree removal action was necessary to allow for the reasonable economic or other enjoyment of the property given that the development could be redesigned to retain the oak tree. The Planning Commission subsequently voted 3-1 to continue the item and directed staff to prepare Findings of Denial for consideration by the Planning Commission at a future date.

3. Revised Project- Reduced Light Well

In response to comments and concerns raised at the February 14, 2018 Planning Commission hearing, the applicant has submitted revised grading plans (Attachment C) and a revised arborist report (Attachment D) for the Planning Commission's consideration. The revised grading proposal saves Tree #24, by reducing the length of the proposed basement light well and the extent of the rear patio.

a. Staff Analysis

The placement, size, and height of the proposed residence have not changed and are still consistent with the Single-Family Residential/ Menlo Oaks Zoning District (R-1/S-100), as detailed in the staff report prepared for the February 14, 2018 Planning Commission meeting, which is incorporated within this staff report by reference and included as Attachment F. The recently submitted changes include revisions to the basement light well, rear patio, grading quantities, and drainage plan. The revised plans reduce the length of the basement light well by approximately 5-feet and the extent of the rear patio to save oak Tree #24. The reduction in the light well has also reduced proposed grading quantities by 25 c.y. The revised project proposes 565 c.y. of grading comprised of 515 c.y. of cut and 50 c.y. of fill.

Kielty Arborist Services LLC performed exploratory root trenching to accurately map the extent of the oak tree's buttress roots to determine if the revised basement light well would impact the tree's health and safety. The root survey (detailed in Attachment D) revealed that no

buttress roots were found in the location of the proposed light well. Instead, the roots of the tree are located both on the tension side of the tree (i.e., in the rear) and extend almost laterally from both sides of the tree. The lateral buttress roots grow at a 45 degree angle from the proposed light well (Attachment E) and extend toward the proposed back patio, on one side, and an existing fence on the other side of the tree. As a result of the root survey, the applicant has also reduced the width and depth of the patio to avoid impacting one of the larger lateral buttress roots of the oak tree.

b. Review by County Arborist

The County Arborist has reviewed the revised project plans (including drainage) and arborist report (see Memorandum/Attachment G). The County Arborist has determined that the proposed construction should minimize stress caused by developmental impacts to Tree #24 with implementation of Conditions of Approval Nos. 19 and 20, relating to the elimination of over-digging for the construction of the basement and utilizing geotextile fabrics for root protection.

The County Arborist has also reviewed the applicant's proposal to replant seven (7) oak trees and has determined that the parcel is too crowded with existing trees to accommodate this quantity of replacement trees. Instead, the County Arborist has recommended that the applicant replant four (4) 15-gallon native oak tree species. The County Arborist recommends 15-gallon replacement trees because they have higher establishment rates and recover from transplant stress faster than 24-inch box sized trees (as requested by the appellant), resulting in a higher canopy density in a shorter span of time.

4. Recommended Findings and Conditions of Approval – Revised Project

Staff has drafted Recommended Findings and Conditions of Approval for the revised project (Attachment A), based on staff's determination that, as revised, the project is consistent with applicable County Policies and Ordinances. The revised project has reduced significant tree removal activities and is consistent with the provisions of the Significant Tree Removal Ordinance. The recommended Conditions of Approval are similar to those presented at the February 14, 2018 with a few minor modifications. Condition No. 13, 14, and 25 have been added to reflect that Tree #24 shall be retained, that the site arborist shall oversee all grading activities for the basement light well to ensure the safety of the tree, and to clarify that the proposed 800 sq. ft. pool depicted on the revised plans is not part of this permit application. Condition No. 22 has been modified to require the planting of four (4) oak trees, as recommended by the County Arborist.

5. Recommended Findings of Denial

Per the Planning Commission's prior directive, Staff has also drafted the following finding of denial (included in Attachment B), based on the Planning Commission's discussion at its previous hearing.

Draft Finding of Denial

The project, as proposed to the Planning Commission on February 14, 2018, is inconsistent with the provisions of the Significant Tree Removal Ordinance, which must be considered and applied as part of the grading permit approval process (Significant Tree Removal Ordinance Section 12.020.1(e)). Specifically, the Planning Commission finds that the criteria for a tree cutting permit approval (Ordinance Section 12,023(a)) are not satisfied, and further finds that the grading plan can be modified to minimize tree removal activities and retain the significant oak tree identified by project plans as Tree #24. The Planning Commission further finds that the modifications to the grading plan required to retain the significant tree will not significantly decrease the size of the proposed home nor interfere with the property owner's reasonable economic enjoyment of the subject property.

ATTACHMENTS

- A. Recommended Findings of Approval – Revised Project
- B. Recommended Finding of Denial
- C. Revised Project Plans, dated March 21, 2018
- D. Revised Arborist Report, dated March 16, 2018
- E. Photos of Root Trenching
- F. Planning Commission Staff Report, dated February 14, 2018
- G. San Mateo County Arborist's Revised Project Review Memorandum, dated April 18, 2018

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County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2017-00262

Hearing Date: April 25, 2018

Prepared By: Laura Richstone
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That the project is exempt pursuant to Section 15303, Class 3 of the California Environmental Quality Act Guidelines, consisting of the construction and location of limited numbers of new, small facilities or structures; in this case, a single-family residence in a residential zone.

Regarding the Grading Permit, Find:

2. That the granting of the permit will not have a significant adverse effect on the environment. As discussed in this staff report, the project has received preliminary approval from the Department of Public Works and the Geotechnical Section and site specific recommendations have been incorporated as conditions of approval to address any adverse environmental effects.
3. That the project conforms to the criteria of Chapter 8, Division VII, of the San Mateo County Ordinance Code, including the standards referenced in Section 8605. Planning Staff, the Geotechnical Section, and the Department of Public Works have reviewed the project and have determined it conforms to the criteria of Chapter 8, Division VII, of the San Mateo County Ordinance Code, including the standards referenced in Section 8605 and the San Mateo County General Plan, including the timing of grading activities, and implementation of dust control and erosion and sediment control measures.
4. That the project is consistent with the General Plan. The subject site has a General Plan land use designation of Low Density Residential Urban. The proposed single-family residence remains consistent with the allowed density and use of the designation. As proposed and conditioned, the project complies with General Plan Policy 2.23 (*Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion*) and Policy 2.17 (*Erosion and*

Sedimentation) because the project includes measures and conditions to address each of these items.

5. The project is consistent with the provisions of the Significant Tree Removal Ordinance, the provisions of which must be considered and applied as part of the grading permit approval process (Significant Tree Removal Ordinance Section 12.020.1(e)). The proposed project has taken steps to minimize the removal of significant trees by reducing the length of the proposed light well and placing the proposed structure in an area of the parcel that is least impactful to the surrounding significant trees.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal as described in the plans, supporting materials, and reports submitted to the Planning Commission on April 25, 2018. Minor revisions or modifications to the project shall be subject to review and approval of the Community Development Director, if they are consistent with the intent of, and in substantial conformance with, this approval.
2. This approval shall be valid for one (1) year from the date of this permit and shall be issued concurrently with the Building Permit (BLD 2017-01804) for the new single-family residence and basement. If the Grading Permit (issued as the “hard card” with all necessary information filled out and signatures obtained) has not been issued within this time period, this approval will expire. No grading activities shall commence until all permits have been issued. An extension of this approval will be considered upon written request and payment of applicable fees sixty (60) days prior to expiration.
3. No grading shall be allowed during the winter season (October 1 to April 30) or during any rain event to avoid potential soil erosion unless a prior written request by the applicant is submitted to the Community Development Director in the form of a completed Application for an Exception to the Winter Grading Moratorium at least two (2) weeks prior to the projected commencement of grading activities stating the date when grading will begin for consideration, and approval is granted by the Community Development Director.

The site is considered a Construction Stormwater Regulated site. Any grading activities conducted during the wet weather season (October 1 to April 30) pursuant to prior authorization from the Community Development Director will also require monthly erosion and sediment control inspections by the Building Inspection Section.

4. Prior to the issuance of the grading permit “hard card,” the applicant shall submit a dust control plan for review and approval by the Planning and Building Department. The plan, at a minimum shall include the following measures:
 - a. Water all construction and grading areas at least twice daily.
 - b. Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard.
 - c. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
5. Per Section 9280 of San Mateo County’s Grading and Land Clearing Ordinance, all equipment used in grading operations shall meet spark arrester and firefighting tool requirements, as specified in the California Public Resources Code.
6. The engineer who prepared the approved grading plan shall be responsible for the inspection and certification of the grading as required by Section 8606.2 of the Grading Ordinance. The engineer’s responsibilities shall include those relating to non-compliance detailed in Section 8606.5 of the Grading Ordinance.
7. Prior to the beginning of any construction, the applicant shall implement the approved erosion and sediment control plan and tree protection plan, which shall be maintained throughout the duration of the project. The goal of the Tree Protection Plan is to prevent significant trees, as defined by San Mateo County’s Significant Tree Ordinance, Section 12,000, from injury or damage related to construction activities. The goal of the Erosion and Sediment Control Plan is also to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program “General Construction and Site Supervision Guidelines,” including:
 - a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and the use passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.
 - b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.
 - c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

- d. Using sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.
 - e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
 - f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.
 - g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
 - h. Performing clearing and earth moving activities only during dry weather.
 - i. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.
 - j. Limiting construction access routes and stabilize designated access points.
 - k. Avoiding tracking dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.
 - l. The contractor shall train and provide instruction to all employees and subcontractors regarding the construction Best Management Practices.
 - m. The approved erosion and sediment control plan shall be implemented prior to the beginning of construction
8. All grading and erosion and sediment control measures shall be in accordance to the plans prepared by ROMIG Engineers, Inc., dated April 11, 2018, and approved by the Department of Public Works and the Current Planning Section. Revisions to the approved grading plan shall be prepared and signed by the engineer, and shall be submitted to the Department of Public Works and the Planning Department concurrently prior to commencing any work pursuant to the proposed revision.
9. It shall be the responsibility of the applicant's engineer to regularly inspect the erosion control measures and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected.
10. For the final approval of the Grading Permit, the applicant shall ensure the performance of the following activities within thirty (30) days of the completion of grading:

- a. The engineer shall submit written certification to the Department of Public Works and the Geotechnical Section that all grading has been completed in conformance with the approved plans, conditions of approval, and the Grading Ordinance.
 - b. All applicable work during construction shall be subject to observation and approval by the geotechnical consultant. Section II of the Geotechnical Consultant Approval form must be submitted to the County's Geotechnical Engineer and Current Planning Section.
11. Erosion control and tree protection inspections are required prior to the issuance of a building permit for grading, construction, and demolition purposes, as the project requires the protection of significant trees. Once all review agencies have approved the Building Permit (BLD 2017-01804), the applicant will be notified that an approved job copy of the Erosion Control and Tree Protection Plans are ready for pick-up at the planning counter of the Planning and Building Department. Once the Erosion Control and Tree Protection measures have been installed per the approved plans, please contact Jeremiah Pons, Building/Erosion Control Inspector, at 650/599-1592 or jpons@smcgov.org, to schedule a pre-site inspection. A \$144.00 inspection fee will be added to the building permit for the inspection. If this initial pre-site inspection is not approved, an additional inspection fee will be assessed for each required re-inspection until the erosion control and tree protection measures are deemed adequate by the Building Inspection Section.
12. Non-significant oak trees #3 and #11, identified on the Erosion Control and Tree Protection plans, shall be retained and protected. Tree protection measures shall include tree protection fencing that extends to the driplines of the trees. Where tree protection fencing does not cover the entire root zone of the trees, a landscape buffer of wood chips spread at a depth of 6" shall be placed where foot traffic is expected to be heavy.
13. Significant oak tree #24 (20.7" dbh), as identified on the Erosion Control and Tree Protection plans shall be retained and protected. The only significant trees permitted for removal are a 28.7" dbh incense cedar (Tree #4) and a 20.9" dbh Irish yew (Tree #23). Additional significant tree removal activities outside the scope of this project shall require a separate Tree Removal Permit.
14. The project arborist shall be on-site to oversee all excavation for the reduced light well as described in the plans submitted to the Planning Commission on April 25, 2018.
15. All excavation for the foundation near the 27.9" dbh valley oak (Tree #5 identified in the arborist report), shall be done by hand. No measuring over 2" in diameter or greater shall be cut without the consent approval, and documentation

- of the site arborist. Roots left exposed for a period of time shall be covered with layers of burlap and kept moist.
16. Any excavation within 30 feet of the 35" dbh redwood tree (Tree #18) shall be inspected and overseen by the site arborist.
 17. Trenching for irrigation, electrical, drainage or any other reason shall be hand dug when beneath the driplines of protected trees.
 18. Storage of construction vehicles, equipment, and materials shall be limited to the existing driveway and front walkway areas when feasible. Storage of construction vehicles, equipment, and materials is prohibited within the driplines of protected trees.
 19. Over-dig for the installation of the basement forms shall be eliminated to further reduce encroachment into the root zone of Tree #24.
 20. Geotextile fabrics (root protection matting) shall be used to minimize the amount of sub-surface digging for the rear patio.
 21. To minimize the impacts to redwood tree #18 the driveway skirt shall be left unimproved until after the construction of the main residence and basement is completed.
 22. The applicant shall plant on site a total of four 15-gallon native oak tree species to replace the trees removed. Staff verification of tree plantings is required prior to the final building inspection of the new home.
 23. The location and placement of the required oak tree plantings shall be determined and overseen by the site arborist to ensure that the trees are planted in an area best suited for long term viability and growth of the trees. No replacement trees shall be planted in the proposed pool area depicted on the plans submitted to the Planning Commission on April 25, 2018. A signed and dated letter from the site arborist verifying that they selected an appropriate location and supervised the plantings shall be required prior to final inspection of construction authorized by Building Permit (BLD 2017-01804).
 24. The existing shed in the rear of the subject property shall be removed by hand, in accordance with the arborist report, to prevent impacts to the adjacent coast live oak trees.
 25. The proposed 800 sq. ft. pool depicted on the March 21, 2018 project plans is not part of this permit application, PLN 2017-00262. Construction of this pool shall require a separate building permit.

Building Inspection Section

26. This project shall require a building permit.
27. This project requires a geotechnical/soils report at the time of building permit submittal.

Geotechnical Section

28. The construction of the proposed residence shall include the recommendations from the project geotechnical engineer as well as include scheduled on site review by the project engineer during all required aspects of construction. The project geotechnical engineer shall complete and sign the County of San Mateo form for project design review and post construction observations.

Department of Public Works

29. Prior to the issuance of the building permit or planning permit (for Provision C3 Regulated Projects), the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.
30. 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.
31. 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.

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County of San Mateo
Planning and Building Department

FINDING OF DENIAL

Permit or Project File Number: PLN 2017-00262

Hearing Date: April 25, 2018

Prepared By: Laura Richstone
Project Planner

For Adoption By: Planning Commission

FINDING OF DENIAL

Regarding the Grading Permit, Find:

1. That the project as proposed to the Planning Commission on February 14, 2018, is inconsistent with the provisions of the Significant Tree Removal Ordinance, which must be considered and applied as part of the grading permit approval process (Significant Tree Removal Ordinance Section 12.020.1(e)). Specifically, the Planning Commission finds that the criteria for a tree cutting permit approval (Ordinance Section 12,023(a)) are not satisfied, and further finds that the grading plan can be modified to minimize tree removal activities and retain the significant oak tree identified by project plans as Tree #24. The Planning Commission further finds that a modifications to the grading plan required to retain this significant tree will not significantly decrease the size of the proposed home nor interfere with the property owner's reasonable economic enjoyment of the subject property.

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ABBREVIATION

AC	ASPHALT CONCRETE
AD	AREA DRAIN
C & C	CURB & GUTTER
CONC.	CONCRETE
DI	DRAIN INLET
EL	ELEVATION
FF	FINISH FLOOR GRADE
FG	FINISH GRADE
FL	FLOOR LINE
FS	FINISH SURFACE
FP	GARAGE FINISH GRADE
H	HEAD
H-1	HEAD FROM UTILITY EXISTENT
H-2	POLYETHYLENE GLASS
H-3	TOP OF CURB

ON-SITE IMPERVIOUS AREAS:

POST-DEVELOPMENT	AREA (SQ. FT.)	PERCENT
BUILDING	4,515	50.00
PATIO	1,678	18.75
DRIVEWAY	3,161	35.25
TOTAL	9,354	100.00

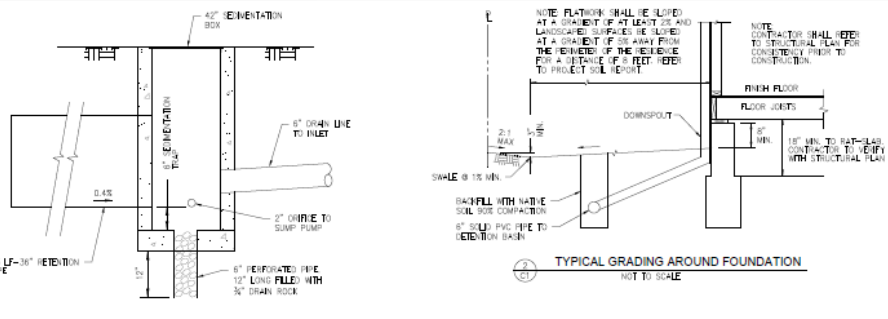
EARTHWORK TABLE

LOCATION	CUT/DEM.	FILL/RET.	EXPORT (CY)	TOTAL (CY)
SITE	10	50		60
HOUSE	35	0		35
BASEMENT	450	0		450
TOTAL	515	50	465	565

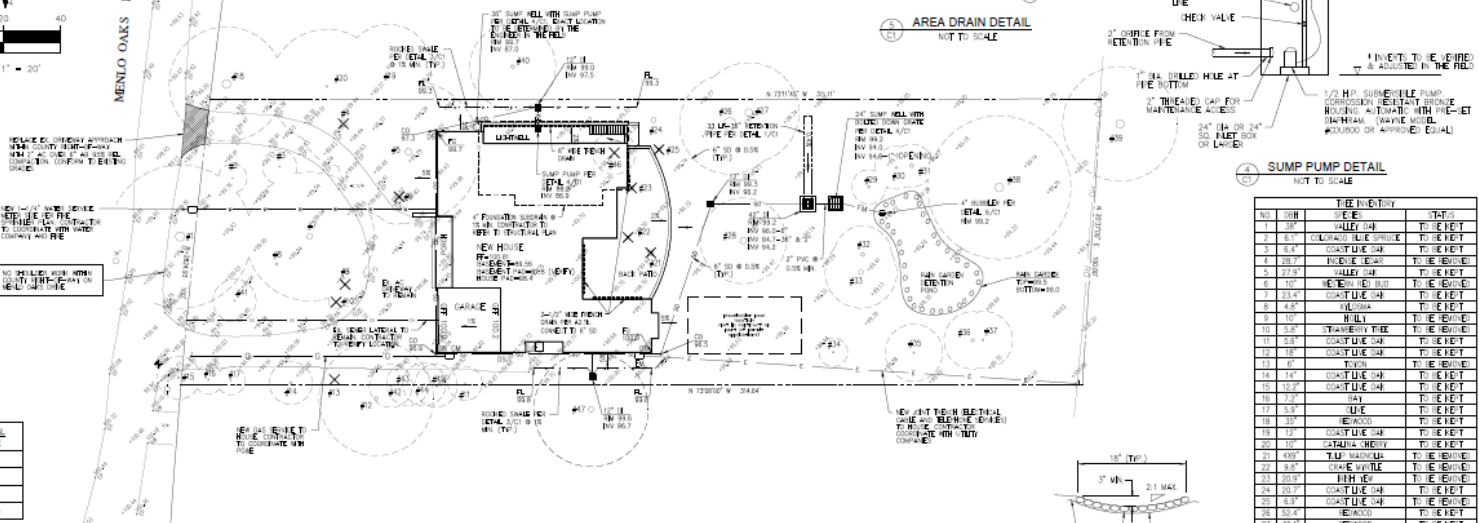
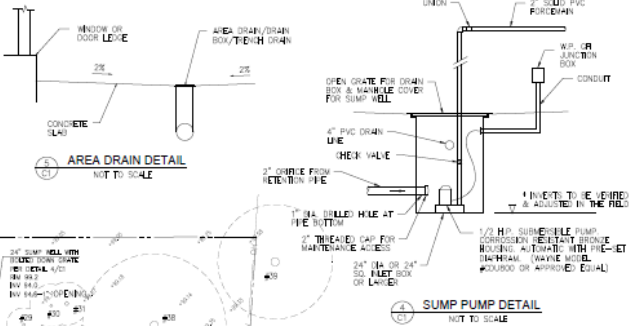
NOTE: EARTHWORK QUANTITIES ON THIS TABLE ARE FOR INFORMATION ONLY. CONTRACTORS ARE TO PERFORM THEIR OWN QUANTITY TAKE-OFF.

SITE BENCHMARK: \blacktriangledown
SET NAIL
ELEVATION=100.00' ASSUMED

BASIS OF BEARINGS:
THE BEARING N037307E (IF THE SOUTH-EASTERLY USE OF LOT 5, BLOCK 24, AS SHOWN ON MAP OF SUBDIVISION OF MENLO OAKS, FILED IN BOOK 17, PAGE 27 AT PAGE 27, SAN MATEO COUNTY RECORDS.



- GRADING NOTES:**
- ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF COUNTY OF SAN MATEO STANDARDS AND SPECIFICATIONS.
 - THE OWNER AND THE ENGINEER OF WORK WILL NOT BE RESPONSIBLE FOR ENFORCING SAFETY MEASURES AND REGULATIONS. THE CONTRACTOR MUST DESIGN, CONSTRUCT, INSTALL AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SIGNING, AND SHALL BE FULLY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
 - PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST VERIFY ALL ADJACENT/CRISSING LOCATIONS, ELEVATIONS, CURB, GUTTER, ORIGINAL FLOW LINES, PAVEMENT, STREETS, AND ALL GRADE JOINTS. IF NECESSARY, IF FOUND, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER AND NOT PROCEED WITH ANY CONSTRUCTION UNTIL VERIFICATION AND RECORD (IF NECESSARY) IS COMPLETED BY THE SAID ENGINEER.
 - THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES/STRUCTURES SHOWN HEREON WERE OBTAINED FROM INFORMATION FURNISHED BY OTHERS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS AND ACCURACY OF SAID INFORMATION. THE CONTRACTOR MUST ASCERTAIN THE TRUE HORIZONTAL AND VERTICAL LOCATION AND DEPTH OF ANY UTILITIES TO BE USED AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES SHOWN OR NOT SHOWN HEREON.
 - THE SOIL REPORTS PREPARED FOR THIS PROJECT BY BROWN ENGINEERS, INC., DATED AUGUST 26, 2016, PROJECT 3538-1 IS A PART OF THIS PLAN. THE MOST STRINGENT REQUIREMENTS BY SOIL ENGINEER OR GOVERNING AGENCIES SHALL PREVAIL.
 - GRADING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE SOIL REPORT FOR THIS SITE TOGETHER WITH ANY SUPPLEMENTAL TESTS. ALL GRADING WORK SHALL BE DONE UNDER THE SUPERVISION OF THE SOIL ENGINEER. THE SOIL ENGINEER SHALL BE NOTIFIED 48 HOURS BEFORE THE START OF ANY GRADING.
 - PRIOR TO START OF ANY WORK, CONTRACTOR MUST REVIEW THE PLANS FOR DESIGN INADEQUACIES AND TYPICAL SUCH AS ELEVATIONS, CURB HEIGHT, DIMENSIONS, SLOPES, ETC. IF INADEQUACIES OR OMISSIONS TYPICAL ARE FOUND, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF WORK FOR VERIFICATION BEFORE PROCEEDING WITH ANY WORK.
 - EXPORT MATERIAL (IF ANY) SHALL BE DEPOSITED OF IN AN ACCEPTABLE LOCATION.
 - ALL STORM DRAIN PIPES SHALL BE 6 INCH MINIMUM DIAMETER AND ALL PIPES CONNECTING DOWNSPOUTS TO STORM DRAINS SHALL BE 4 INCH MINIMUM DIAMETER.
 - THE STORM RUNOFF GENERATED BY THE NEW PROJECT SHALL NOT DRAIN ONTO ADJACENT PROPERTIES. THE EXISTING STORM DRAINAGE FROM THE ADJACENT PROPERTIES SHALL NOT BE OBSTRUCTED BY THE NEW DEVELOPMENT.



THE INDUSTRY

NO.	MIN.	MAX.	DEPTH	TYPE
1	18"	24"	18"	TO BE REVEALED
2	18"	24"	18"	TO BE REVEALED
3	18"	24"	18"	TO BE REVEALED
4	18"	24"	18"	TO BE REVEALED
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47	18"	24"	18"	TO BE REVEALED
48	18"	24"	18"	TO BE REVEALED
49	18"	24"	18"	TO BE REVEALED
50	18"	24"	18"	TO BE REVEALED

IT SHALL BE THE HOMEOWNER'S RESPONSIBILITY TO ENSURE THAT ALL GRADING IMPROVEMENTS SHOWN HEREON ARE MAINTAINED IN GOOD WORKING ORDER. THIS SHALL BE VERIFIED BY THE CITY ENGINEER PRIOR TO ANY GRADING WORK. ANY GRADING WORK SHALL BE VERIFIED BY THE CITY ENGINEER PRIOR TO ANY GRADING WORK. ANY GRADING WORK SHALL BE VERIFIED BY THE CITY ENGINEER PRIOR TO ANY GRADING WORK.

- NOTE TO CONTRACTOR:**
- CONTRACTOR SHALL MAINTAIN AND CONTROL STORMWATER DURING CONSTRUCTION. INTERIM GRADING AND DRAINAGE IMPROVEMENTS SHALL BE PROVIDED TO ENSURE NO STORMWATER WILL FLOW ONTO ADJACENT PROPERTIES AND TO REMAIN AS MUCH UNDISTURBED AS FEASIBLE ON-SITE UNTIL FINAL GRADING AND DRAINAGE IMPROVEMENTS ARE IN PLACE.
 - LOCATION OF DOWNSPOUTS TO BE VERIFIED IN THE FIELD.
 - CONTRACTOR SHALL VERIFY FLOOR ELEVATION WITH ARCHITECTURAL & STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ADJUST ELEVATIONS AS NECESSARY.

RW ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS
505 ALHAMBRA DRIVE
MENLO PARK, CA 94025
TEL: (650) 326-2555
WWW.RWENGINEERING.COM

NEW RESIDENCE
900 MENLO OAKS DRIVE
MENLO PARK, CA
SAN MATEO COUNTY
APN: 052-160-090

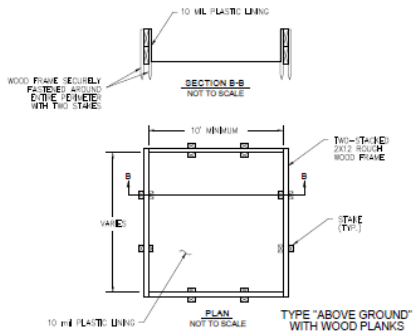
GRADING & DRAINAGE PLAN

DATE: 4/11/25
SCALE: AS NOTED
DRAWN BY: RW
SHEET NO: C-1

San Mateo County Planning Commission Meeting

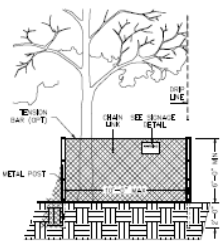
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File Numbers:

Attachment:



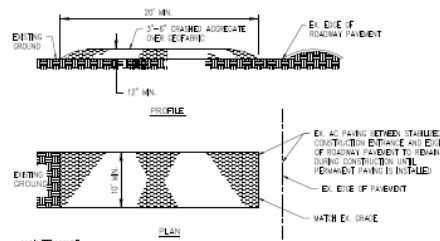
- NOTE:
1. ALL LINES TO THE ETC. (E) IN THE PLAN SHALL BE MAINTAINED WITHIN 30% OF THE TEMPORARY CONCRETE SURFACE AT ALL TIMES.
 2. ALL LINES TO THE ETC. (E) IN THE PLAN SHALL BE MAINTAINED WITHIN 30% OF THE TEMPORARY CONCRETE SURFACE AT ALL TIMES.
 3. ALL LINES TO THE ETC. (E) IN THE PLAN SHALL BE MAINTAINED WITHIN 30% OF THE TEMPORARY CONCRETE SURFACE AT ALL TIMES.
 4. ALL LINES TO THE ETC. (E) IN THE PLAN SHALL BE MAINTAINED WITHIN 30% OF THE TEMPORARY CONCRETE SURFACE AT ALL TIMES.
 5. ALL LINES TO THE ETC. (E) IN THE PLAN SHALL BE MAINTAINED WITHIN 30% OF THE TEMPORARY CONCRETE SURFACE AT ALL TIMES.

CONCRETE WASHOUT
NOT TO SCALE



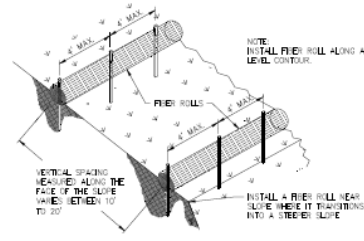
- EXISTING TREE PROTECTION DETAILS
1. PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTIVE FENCING SHALL BE INSTALLED IN ACCORDANCE WITH THE TREE PROTECTION PLAN AND MONITORED BY A REGISTERED ARBORIST. THE ARBORIST SHALL MONITOR CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTIVE MEASURES ARE IMPLEMENTED AND MAINTAINED THROUGHOUT CONSTRUCTION. THE FENCING SHALL BE INCORPORATED INTO THE GRADING PLAN.
 2. FENCING SHALL BE MINIMUM 5 FEET TALL CONSISTING OF STURDY MATERIAL (CHAIN-LINK OR EQUIVALENT STRENGTH DURABILITY).
 3. FENCING SHALL BE SUPPORTED BY METAL POSTS (MINIMUM 2 FEET DIA) INTO THE GROUND AND SHALL NOT BE MORE THAN 12 FEET APART.
 4. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE CONSTRUCTION PERIOD. IMPEDERS SHALL BE REMOVED AND PROPER FUNCTION MAINTAINED AS NECESSARY TO PERMIT A PHYSICAL BARRIED FROM CONSTRUCTION ACTIVITY, AND REMAIN IN PLACE UNTIL THE FINAL INSPECTION.
 5. A SIGN THAT INDICATES THE PURPOSE OF THE FENCING SHALL BE INSTALLED OUTWARDLY. THIS SIGN SHALL NOT BE REMOVED WITHOUT THE EXPRESS PERMISSION OF THE SAN MATEO COUNTY PLANNING DEPARTMENT. IT SHALL BE SECURELY ATTACHED TO THE FENCING IN A VISIBLY PROMINENT LOCATION.

NOTE: REGISTERED ARBORIST CONTROL MEASURES SHOWN ON THIS SHEET ARE THE MINIMUM REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL REGISTERED ARBORIST CONTROL MEASURES AS BECOMES NECESSARY TO ASSURE ADEQUATE PROTECTION DURING THE PROCESS OF CONSTRUCTION AND AT THE CONTRACTOR'S EXPENSE.

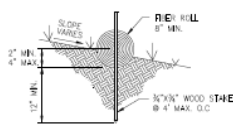


- MAINTENANCE
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PERMIT TRAFFIC OF FLOWING SEWAGE INTO THE STORM DRAIN. THIS MAY REQUIRE CLEANING WITH AN ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY MEASURES USED TO STOP SEWAGE FROM ENTERING THE DRAIN.
 2. ALL SEWAGE (SOLID, LIQUID, GASEOUS, OR TRAPPED) INTO PUBLIC DRAINAGE SHALL BE REMOVED IMMEDIATELY.
 3. WHEN NECESSARY, SIGNAGE SHALL BE USED TO REMOVE SEWAGE FROM THE ENTRANCE INTO PUBLIC DRAINAGE. THE SIGNAGE SHALL BE AT AN APPROVED LOCATION WITH GRADING STONE WHICH POINTS INTO AN APPROVED SEWERAGE TREATMENT PLANT.

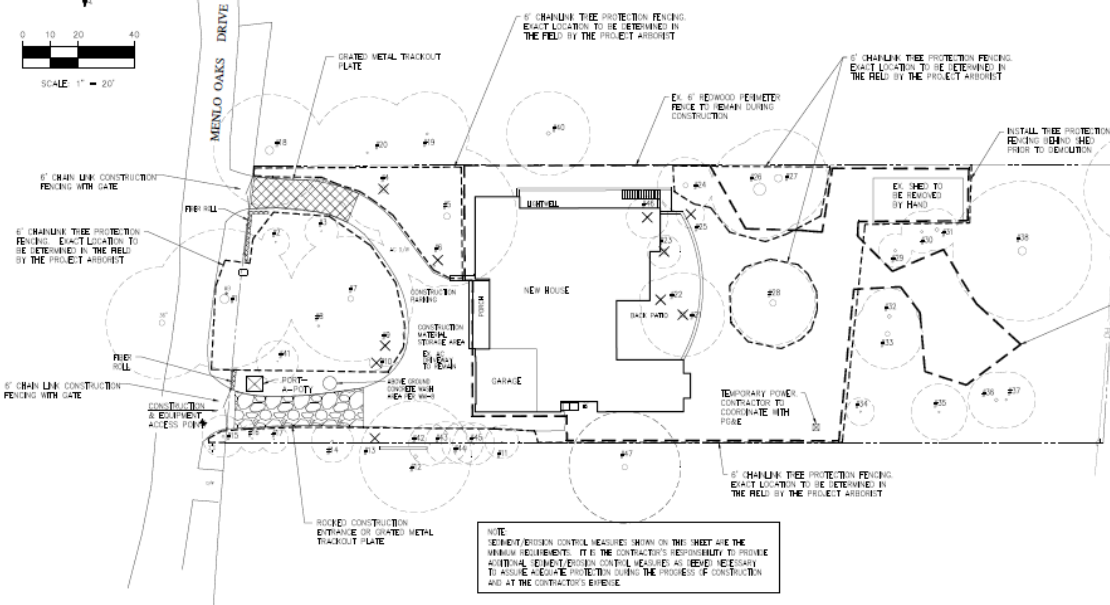
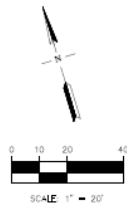
STABILIZED CONSTRUCTION ENTRANCE (TO BE MAINTAINED)
NOT TO SCALE



TYPICAL FIBER ROLL INSTALLATION
NOT TO SCALE

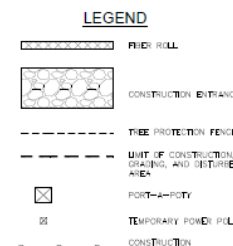


ENTRENCHMENT DETAIL



NO.	DATE	DESCRIPTION	BY
1	01/15/18	ISSUE FOR PERMIT	RW
2	02/15/18	REVISION	RW
3	03/15/18	REVISION	RW
4	04/15/18	REVISION	RW
5	05/15/18	REVISION	RW
6	06/15/18	REVISION	RW
7	07/15/18	REVISION	RW
8	08/15/18	REVISION	RW
9	09/15/18	REVISION	RW
10	10/15/18	REVISION	RW
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15	03/15/19	REVISION	RW
16	04/15/19	REVISION	RW
17	05/15/19	REVISION	RW
18	06/15/19	REVISION	RW
19	07/15/19	REVISION	RW
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22	10/15/19	REVISION	RW
23	11/15/19	REVISION	RW
24	12/15/19	REVISION	RW
25	01/15/20	REVISION	RW
26	02/15/20	REVISION	RW
27	03/15/20	REVISION	RW
28	04/15/20	REVISION	RW
29	05/15/20	REVISION	RW
30	06/15/20	REVISION	RW
31	07/15/20	REVISION	RW
32	08/15/20	REVISION	RW
33	09/15/20	REVISION	RW
34	10/15/20	REVISION	RW
35	11/15/20	REVISION	RW
36	12/15/20	REVISION	RW
37	01/15/21	REVISION	RW
38	02/15/21	REVISION	RW
39	03/15/21	REVISION	RW
40	04/15/21	REVISION	RW
41	05/15/21	REVISION	RW
42	06/15/21	REVISION	RW
43	07/15/21	REVISION	RW
44	08/15/21	REVISION	RW
45	09/15/21	REVISION	RW
46	10/15/21	REVISION	RW
47	11/15/21	REVISION	RW
48	12/15/21	REVISION	RW

UNIT OF CONSTRUCTION, GRADING, AND DISTURBED AREA. CONTRACTOR SHALL MAINTAIN OR COVER WITH A MAT ALL EXPOSED AREAS DURING CONSTRUCTION UNTIL PERMANENT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED. REPAIR ALL EXPOSED AREAS WITHIN 24 HOURS.



RW ENGINEERING, INC.
 100 ALVARADO BLVD
 SAN MATEO, CA 94402
 (650) 331-1000
 (650) 331-1001
 Fax: (650) 331-1002
 www.rweng.com

NEW RESIDENCE
900 MENLO OAKS DRIVE
MENLO PARK, CA
 SAN MATEO COUNTY
 APR. 06/16/18-190

EROSION CONTROL PLAN

DATE: 4/17/18
 SCALE: AS SHOWN
 DRAWN BY: RW
 SHEET NO: C-2

San Mateo County Planning Commission Meeting

Owner/Applicant:
 File Numbers:

Attachment:

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THIS PLAN IS INTENDED TO BE USED FOR EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL DETERMINATIONS OR PERMANENT IMPROVEMENTS.
2. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING, AND AFTER STORM EVENTS.
3. RESPONSIBLE CARE SHALL BE TAKEN WHEN HANDLING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAINTS OR ANY OTHER SUBSTANCE ON ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY LEAK, SPILL, OR TRAIL OCCUR AND UPON 540' PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.
4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
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 LAUNCH RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE CHANES AND WATER COURSES.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH.
7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE, AND LOCAL AGENCY REQUIREMENTS.

EROSION AND SEDIMENT CONTROL MEASURES:

1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1 TO APRIL 30. FACILITIES ARE TO BE INSTALLED PRIOR TO OCTOBER 1 OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE EXPOSED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
2. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE MATS.
3. 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 CITY AND COUNTY.
4. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY 10/30, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS OR A THREE-TIER APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TRAPERS AND MULCH.
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 CLOSED TO PREVENT ENTRY OF SEDIMENT.
6. THE 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. NOTIFY THE CITY REPRESENTATIVE OF ANY FIELD CHANGES.

MAINTENANCE NOTES:

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - A. REPAIR DAMAGES CAUSED BY SOIL, EROSION OR CONSTRUCTION AT THE END OF EACH WORKING DAY.
 - B. SLOPES SHALL BE INSPECTED, REPAIRS MADE AND MAINTAINED AS NEEDED.
 - C. SEDIMENT TRAPS, BERMES, AND CHALES 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 DRIFT.
 - F. PILLS AND CHALES MUST BE REPAIRED.
2. ROCK BAG INLET PROTECTION SHALL BE CLEARED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.

HYDROSEEDING:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, CALIFORNIA STANDARD SPECIFICATIONS, AND UNDER THE DIRECTION OF THE SOIL EXPERT IN THE FIELD.
2. 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 AVAILABLE FROM PACIFIC COAST SEED, LIVERMORE (925) 373-4417:

FIBER (HYDROSEED AND TACK MULCH)	2500 LBS/ACRE
COLOR (GREEN TO GOLD)	55 LBS/ACRE
FERTILIZER (16-20-0)	350 LBS/ACRE
WATER	120 LBS/ACRE

 WATER AS REQUIRED FOR APPLICATION

ADDITIONAL NOTES:

1. **EROSION CONTROL LIMIT OF CONTACT:** THIS PERSON WILL BE RESPONSIBLE FOR EROSION CONTROL AT THE SITE AND WILL BE THE COUNTY'S MAIN POINT OF CONTACT IF CONDITIONS ARE REQUIRED. NAME TO BE PROVIDED AT TIME OF PERMIT ISSUANCE. TITLE/COMPARTMENT - FEDERAL CONTRACTOR. PHONE TO BE PROVIDED AT TIME OF PERMIT ISSUANCE.
2. REPAIR CLEANING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER. MEASURES TO ENSURE EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO EARTH-MOVING ACTIVITIES AND CONSTRUCTION.
3. MEASURES TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL ARE REQUIRED YEAR-ROUND. STABILIZE ALL EXPOSED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30.
4. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEM CONTACT WITH UNDERWATER.
5. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAINTS, OILS, WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, INDUSTRIAL WASTEWATER OR SEDIMENTS, AND NON-DETERMINATED DISCHARGES TO STORM DRAINS AND WATERCOURSES.
6. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DETERMINING SITE AND OBTAIN REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) PERMITS AS NECESSARY.
7. AVOID LEAVING VEHICLES OR MAINTAINING VEHICLE ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASHWATER IS CONTAINED AND TREATED.
8. LIMIT AND THE APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTING RUNOFF.
9. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
10. AVOID TRACKING DIRT OR OTHER MATERIAL OFF-SITE. CLEAN OFF-SITE PAVED AREAS AND SIDEWAYS USING DRY BRUSHING METHODS.
11. TRAIN AND PROMOTE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE WATERSHED PROTECTION MAINTENANCE STANDARDS AND CONSTRUCTION BEST MANAGEMENT PRACTICES.
12. PLACEMENT OF EROSION MATERIALS AT THESE LOCATIONS IS REQUIRED ON WEEDS AND DURING RAIN EVENTS:
 - A) CONSTRUCTION MATERIAL STORAGE AREA AS SHOWN ON C-2.
13. THE AREA DESIGNATED ON THE PLANS FOR PARKING, GRUBBING, STORAGE ETC., SHALL NOT BE ENLARGED OR "RUN OVER."
14. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS ON-SITE DURING THE "OFF-SEASON."
15. DUST CONTROL IS REQUIRED YEAR-ROUND.
16. EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
17. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES. WHERE THE STOCKPILE IS ALSO PROTECTED WITH FIBER ROLLS CONTAINING THE BASE OF THE STOCKPILE.
18. THE TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.

TREE PROTECTION NOTES:

LANDSCAPE BUFFER:

1. WHERE TREE PROTECTION DOES NOT COVER THE ENTIRE ROOT ZONE OF THE TREES, A LANDSCAPE BUFFER CONSISTING OF WOOD CHIPS SPREAD TO A DEPTH OF SIX INCHES WILL BE PLACED. WHERE ROOT ZONE IS EXPOSED TO BE HEAVY, THE LANDSCAPE BUFFER WILL HELP TO REDUCE COMPACTION TO THE UNPROTECTED ROOT ZONE.

ROOT CUTTING:

2. ANY ROOTS TO BE CUT SHOULD BE MONITORED AND DOCUMENTED. LARGE ROOTS OR LARGE MASSES OF ROOTS TO BE CUT SHOULD BE NOTIFIED BY THE SITE ARBORIST. THE SITE ARBORIST MAY RECOMMEND IRRIGATION OR FERTILIZING AT THAT THE CUT ALL ROOTS. CLEAN WITH A SAW OR LOWERS ROOTS TO BE LEFT EXPOSED FOR A PERIOD OF THREE TO SIX MONTHS. CUTTING SHOULD BE DONE WITH LAYERS OF BURLAP AND KNOT MATT. ALL ROOTS EXPOSED BEHIND MEASURING 2 INCHES IN DIAMETER OR OVER SHALL BE CUTTED, AND NEARBY DAMAGE FREE FOR THE SITE ARBORIST TO VIEW. IRRIGATION MEASURES WILL BE APPLIED AT THE TREE.

TRENCHING AND EXCAVATION:

3. TRENCHING FOR IRRIGATION, ELECTRICAL, DRAINAGE OR ANY OTHER REASON, SHOULD BE HAND DUG WHEN BENEATH THE CANOPY OF REDWOOD TREES. HAND DIGGING AND CAREFUL PLACEMENT OF PIPES, BELOW OR UNDER PROTECTED ROOTS, WILL DRAMATICALLY REDUCE ROOT LOSS. THIS DIGGING PLACING TO BE DONE. TREES FURNISHED SHOULD BE BACK FILLED AS SOON AS POSSIBLE USING NATIVE MATERIALS AND COMPACTED TO NEAR ORIGINAL LEVELS. TRENCHES TO BE LEFT OPEN WITH EXPOSED ROOTS SHALL BE COVERED WITH BURLAP AND KNOT MATT. FLYWOOD LAD OVER THE TRENCH WILL HELP TO PROTECT ROOTS BELOW.

IRRIGATION:

4. NORMAL IRRIGATION SHOULD BE MAINTAINED THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. ALL OF THE IMPROVED TREES WILL REQUIRE NORMAL IRRIGATION. THIS INCLUDES THE REDWOOD TREE. IRRIGATION SHOULD CONSIST OF SURFACE FLOODING WITH ENOUGH WATER TO WET THE ENTIRE ROOT ZONE. IF THE ROOT ZONE IS TRAUMATIZED THIS TYPE OF IRRIGATION SHOULD BE CARRIED OUT TWO TIMES PER MONTH DURING THE WARM DRY SEASON.

INSPECTION:

5. THE SITE WILL BE INSPECTED AFTER THE TREE PROTECTION MEASURES ARE INSTALLED AND BEFORE THE START OF CONSTRUCTION. OTHER INSPECTIONS WILL BE CARRIED OUT ON AN AS NEEDED BASIS. ADVISE THE WORK IS WITHIN 20 FEET OF THE PROTECTED TREE ON-SITE THE SITE ARBORIST MUST BE NOTIFIED 48 HOURS IN ADVANCE SO THAT A SITE VISIT CAN BE SCHEDULED DURING THE PROPOSED WORK.

EROSION CONTROL DURING TREE REMOVAL PHASE:

- DURING THE TREE REMOVAL PHASE, THE APPLICANT SHALL PURSUANT TO CHAPTER 4.100 OF THE SAN MATEO COUNTY ORDINANCE CODE, MINIMIZE THE TRANSPORT AND DISCHARGE OF STORMWATER RUNOFF FROM THE CONSTRUCTION SITE BY:
 - 6. STABILIZING ALL EXPOSED AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30.
 - 7. REMOVING SOILS PROMPTLY AND AVOIDING 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.
 - 8. STORING, HANDLING, AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO AVOID THEIR ENTRY TO THE STORM DRAIN SYSTEM OR WATER BODY.
 - 9. USING FILTRATION OR OTHER MEASURES TO REMOVE SEDIMENT FROM DETERMINING EFFLUENT.
 - 10. AVOIDING CLEANING, FILLING, OR MAINTAINING VEHICLE ON-SITE EXCEPT IN AN AREA DESIGNATED TO CONTAIN TREAT RUNOFF.
 - 11. LIMITING AND TRAINING APPLICATION OF PESTICIDES AND FERTILIZERS TO AVOID POLLUTING RUNOFF.
- COUNTY RIGHT-OF-WAY:
 - 12. PRIOR TO THE REMOVAL OF ANY TREES LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY, THE APPLICANT SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS. ADDITIONALLY, PRIOR TO PLANTING ANY TREES WITHIN THE PUBLIC RIGHT-OF-WAY, THE APPLICANT SHALL OBTAIN A LANDSCAPE ARCHITECTURE PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS.
 - 13. THE APPLICANT SHALL CLEAR ALL DEBRIS FROM THE PUBLIC RIGHT-OF-WAY.

DATE									
REVISION									
NO.									

RW ENGINEERING, INC.
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEER
 200 ALVARADO AVE
 ALHAMBRA, CA 91803
 (626) 444-8888
 FAX: (626) 444-8888
 www.rwengr.com

NEW RESIDENCE
900 MENO OAKS DRIVE
MENLO PARK, CA
 SAN MATEO COUNTY
 APN: 062-2161-090

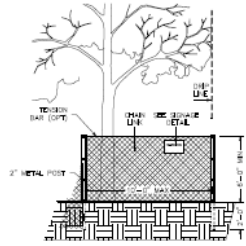
EROSION CONTROL & TREE PROTECTION NOTES

DATE:	4/27/08
SCALE:	AS NOTED
DRAWN BY:	RM
CHECKED BY:	RM
SHEET NO.	C-3

San Mateo County Planning Commission Meeting

Owner/Applicant: _____ Attachment: _____

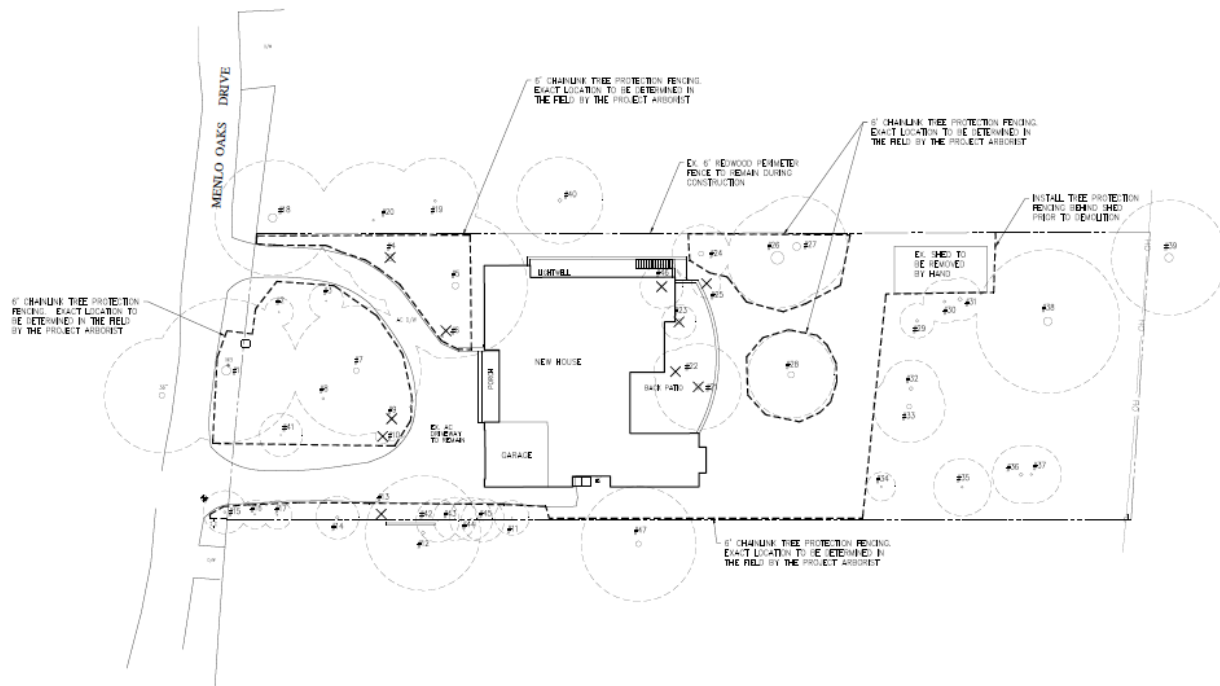
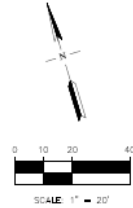
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EXISTING TREE PROTECTION DETAILS

1. PRIOR TO THE COMMENCEMENT OF ANY GRADING, THE PROTECTIVE FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PRESERVATION PLAN AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTION MEASURES ARE IMPLEMENTED AND ADHERED TO DURING CONSTRUCTION. THIS CONDITION SHALL BE INCORPORATED INTO THE GRADING PLANS.
2. FENCE SHALL BE MINIMUM 6 FEET TALL, CONSTRUCTED OF STURDY MATERIAL (WHAHMUN OR EQUIVALENT STRENGTH/CAPACITY).
3. FENCE SHALL BE SUPPORTED BY VERTICAL POSTS DRIVEN 2 FEET INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART.
4. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE CONSTRUCTION PERIOD, INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION. REPAIRS AS NECESSARY TO PREVENT A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE UNTIL THE FINAL INSPECTION.
5. A SIGN THAT INCLUDES THE WORDS "TREE PROTECTION ZONE-KEEP OUT" HANGING. THE FENCE SHALL NOT BE REMOVED WITHOUT THE EXPRESS PERMISSION OF THE SAN MATEO COUNTY PLANNING OFFICE. SHALL BE PERMANENTLY ATTACHED TO THE FENCE IN A VISUALLY PROMINENT LOCATION.

NO.	DIM.	TREE SPECIES	STATUS
1	38"	VALLEY OAK	TO BE DET.
2	17"	ORANGE LEE SHRUB	TO BE DET.
3	6.4"	COAST UE OAK	TO BE DET.
4	28.7"	REDWOOD	TO BE REMOVED
5	27.9"	VALLEY OAK	TO BE DET.
6	4.0"	WINDY RED BUD	TO BE REMOVED
7	23.4"	COAST UE OAK	TO BE DET.
8	4.8"	ALBIONIA	TO BE DET.
9	10"	HULL	TO BE REMOVED
10	5.5"	STRAWBERRY TREE	TO BE REMOVED
11	5.8"	COAST UE OAK	TO BE DET.
12	18"	COAST UE OAK	TO BE DET.
13	18"	YEW	TO BE REMOVED
14	14"	COAST UE OAK	TO BE DET.
15	12.2"	COAST UE OAK	TO BE DET.
16	22"	YEW	TO BE DET.
17	5.9"	YEW	TO BE DET.
18	35"	REDWOOD	TO BE DET.
19	12"	COAST UE OAK	TO BE DET.
20	10"	CANYON CHERRY	TO BE DET.
21	4.9"	YEW	TO BE REMOVED
22	9.8"	ORANGE LEE	TO BE REMOVED
23	20.4"	YEW	TO BE REMOVED
24	20.7"	COAST UE OAK	TO BE DET.
25	8.9"	COAST UE OAK	TO BE REMOVED
26	32.4"	REDWOOD	TO BE DET.
27	30.1"	REDWOOD	TO BE DET.
28	26.9"	COAST UE OAK	TO BE DET.
29	19.9"	COAST UE OAK	TO BE DET.
30	19.5"	COAST UE OAK	TO BE DET.
31	19.4"	COAST UE OAK	TO BE DET.
32	19.2"	COAST UE OAK	TO BE DET.
33	18.7"	COAST UE OAK	TO BE DET.
34	8.1"	HULL	TO BE DET.
35	8.9"	TREE OF HEAVEN	TO BE DET.
36	18.9"	COAST UE OAK	TO BE DET.
37	10"	CANYON CHERRY	TO BE DET.
38	39.2"	COAST UE OAK	TO BE DET.
39	39.2"	COAST UE OAK	TO BE DET.
40	18"	COAST UE OAK	TO BE DET.
41	8.5"	VALLEY OAK	TO BE DET.
42	4.9"	COAST UE OAK	TO BE DET.
43	3.9"	COAST UE OAK	TO BE DET.
44	3.3"	COAST UE OAK	TO BE DET.
45	8.8"	COAST UE OAK	TO BE DET.
46	5.9"	COAST UE OAK	TO BE REMOVED
47	22.7"	COAST UE OAK	TO BE DET.



LEGEND
 - - - - - TREE PROTECTION FENCING

DATE: _____
 SCALE: AS NOTED
 DESIGNED BY: RW
 DRAWN BY: RW
 SHEET NO. **C4**

RW ENGINEERING, INC.
 200 ALABAMA DRIVE
 MENLO PARK, CA 94025
 (415) 321-2000
 (415) 321-2009
 email:rw@rweng.com

RW
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA
 LICENSE NO. 45678

NEW RESIDENCE
900 MENLO OAKS DRIVE
MENLO PARK, CA
 SAN MATEO COUNTY
 APN: 062-169-090

TREE PROTECTION PLAN

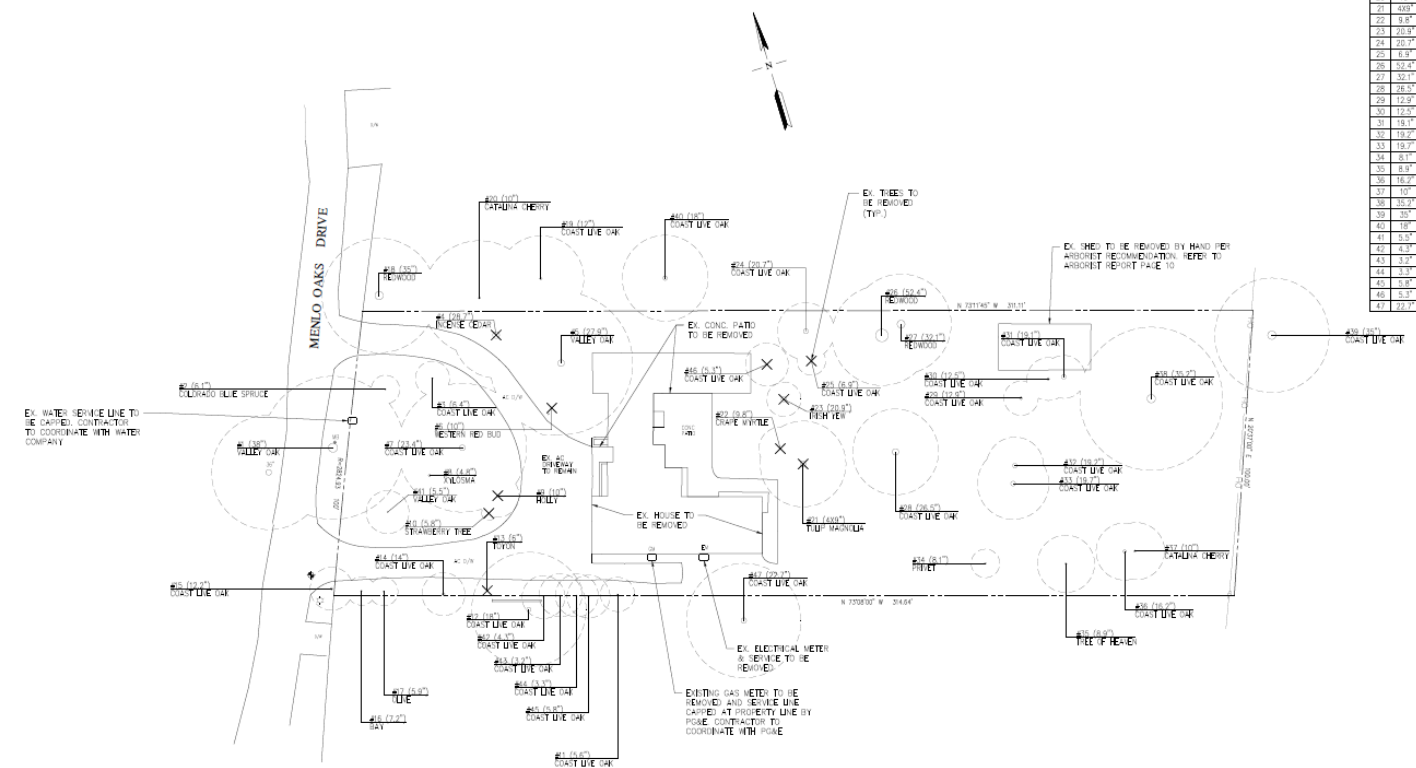
San Mateo County Planning Commission Meeting

Owner/Applicant: _____ Attachment: _____
 File Numbers: _____

DEMOLITION NOTES:

1. THIS PROJECT MUST COMPLY WITH THE COUNTY'S CONSTRUCTION AND DEMOLITION ORDINANCES AND REGULATIONS.
2. PRIOR TO ANY DEMOLITION WORK, ALL EROSION CONTROL MEASURES SHOWN ON C-2 SHALL BE FULLY IMPLEMENTED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING SAFETY MEASURES AND REGULATIONS IN CONFORMANCE TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
4. EXPORT MATERIAL SHALL BE DISPOSED OF IN AN ACCEPTABLE LOCATION.
5. THE PRIME CONTRACTOR IS TO HIRE A STREET CLEANING CONTRACTOR TO CLEAN UP DIRT AND DEBRIS FROM CITY STREETS THAT ARE ATTRIBUTABLE TO THE DEVELOPER'S CONSTRUCTION ACTIVITIES. THE STREET CLEANING CONTRACTOR IS TO HAVE THE CAPABILITY OF SWEEPING THE STREETS WITH BOTH A BROOM-TYPE HEADER AND A REGENERATIVE AIR VACUUM HEADER, AS DIRECTED BY THE PUBLIC WORKS DIRECTOR, OR HIS/HER DESIGNATED REPRESENTATIVE.

NO.	DIM	THE INVENTORY	STATUS
1	30'	VALLEY OAK	TO BE KEPT
2	6.1'	COASTAL BLUE SCRUB	TO BE KEPT
3	6.4'	COAST OAK	TO BE KEPT
4	28.7'	REDWOOD	TO BE REMOVED
5	27.9'	VALLEY OAK	TO BE KEPT
6	10'	NETSUN RED BUD	TO BE REMOVED
7	23.4'	COAST OAK	TO BE KEPT
8	4.6'	YULONIA	TO BE KEPT
9	10'	HILLY	TO BE REMOVED
10	9.5'	STRAWBERRY TREE	TO BE REMOVED
11	9.5'	COAST OAK	TO BE KEPT
12	18'	COAST OAK	TO BE KEPT
13	4'	YULONIA	TO BE REMOVED
14	14'	COAST OAK	TO BE KEPT
15	12.2'	COAST OAK	TO BE KEPT
16	7.2'	RAY	TO BE KEPT
17	5.9'	YULONIA	TO BE KEPT
18	35'	REDWOOD	TO BE KEPT
19	12'	COAST OAK	TO BE KEPT
20	10'	CATAJUA HERRY	TO BE KEPT
21	400'	YULONIA	TO BE REMOVED
22	9.8'	ORANGE WHOLE	TO BE REMOVED
23	20.3'	RAY	TO BE REMOVED
24	20.7'	COAST OAK	TO BE KEPT
25	6.9'	COAST OAK	TO BE REMOVED
26	52.4'	REDWOOD	TO BE KEPT
27	32.1'	REDWOOD	TO BE KEPT
28	28.2'	COAST OAK	TO BE KEPT
29	12.9'	COAST OAK	TO BE KEPT
30	12.5'	COAST OAK	TO BE KEPT
31	18.1'	COAST OAK	TO BE KEPT
32	19.2'	COAST OAK	TO BE KEPT
33	19.7'	COAST OAK	TO BE KEPT
34	8.1'	YULONIA	TO BE KEPT
35	4.9'	TREE TRUNKS	TO BE KEPT
36	16.2'	COAST OAK	TO BE KEPT
37	10'	CATAJUA HERRY	TO BE KEPT
38	35.9'	COAST OAK	TO BE KEPT
39	35'	COAST OAK	TO BE KEPT
40	18'	COAST OAK	TO BE KEPT
41	3.5'	VALLEY OAK	TO BE KEPT
42	4.9'	COAST OAK	TO BE KEPT
43	3.3'	COAST OAK	TO BE KEPT
44	3.3'	COAST OAK	TO BE KEPT
45	5.9'	COAST OAK	TO BE KEPT
46	5.3'	COAST OAK	TO BE REMOVED
47	22.7'	COAST OAK	TO BE KEPT



PRIOR TO THE COMMENCEMENT OF ANY WORK ZONE IN THE PUBLIC RIGHT-OF-WAY, A PERMIT TO OPEN STREET AND/OR AN ENGAGEMENT PERMIT WILL BE REQUIRED.



DATE	REVISION	NO.	BY				
				RW ENGINEERING, INC. CIVIL ENGINEER • LAND SURVEYOR 500 APARTMENT DRIVE MENLO PARK, CA 94025 (415) 321-0800 (FAX) (415) 321-0555 rwin@rwengr.com			
				NEW RESIDENCE 900 MENLO OAKS DRIVE MENLO PARK, CA SAN MATEO COUNTY APN: 0622-160-090			
DEMOLITION PLAN				DATE: 3/21/15 SCALE: AS NOTED DESIGNED BY: JH DRAWN BY: JH SHEET NO.: D-1			

San Mateo County Planning Commission Meeting

Owner/Applicant: _____

Attachment: _____

File Numbers: _____

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THIS PLAN IS INTENDED TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
2. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING, AND AFTER STORM EVENTS.
3. REASONABLE CARE SHALL BE TAKEN WHEN HANDLING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY BLOW, SPILL, OR TRACK OVER AND UPON SUCH PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.
4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
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 LAUNCH RUNOFF TO ANY STORM DRAINAGE SYSTEM INCLUDING EXISTING DRAINABLE SWALES AND WATER COURSES.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH.
7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE, AND LOCAL AGENCY REQUIREMENTS.

EROSION AND SEDIMENT CONTROL MEASURES

1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1 TO APRIL 30. FACILITIES ARE TO BE OPERATIVE PRIOR TO OCTOBER 1 OF ANY YEAR. GRADING OPERATIONS DURING THE DRY SEASON (WHEN LEAVE EXPOSED SOILS) SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPE.
2. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE TRACS.
3. 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 IMMEDIATELY AND AS REQUIRED BY THE CITY AND COUNTY.
4. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY 10/10, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED SUCH AS EROSION CONTROL BLANKETS, OR A THREE-SITE APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) SLOW STRAW 3) TOPPING AND MULCH.
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 CLOSED TO PREVENT ENTRY OF SEDIMENT.
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. NOTIFY THE CITY WHENEVER IT IS CARRIED OUT IN A FIELD CHANGE.

MAINTENANCE NOTES:

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - A. SEDIMENT CHANNELS CAUSED BY SOIL EROSION OR CONSTRUCTION AT THE END OF EACH WORKING DAY.
 - B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
 - C. SEDIMENT TRAPS, DEBRIS 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. HILLS AND COLLIES MUST BE REPAIRED.
2. ROCK BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF THE GRAVEL BAG.

HYDROSEEDING:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, CALTRANS STANDARD SPECIFICATIONS, AND UNDER THE DIRECTION OF THE SOIL ENGINEER IN THE FIELD.
2. ALL AREAS SPECIFIED FOR HYDROSEEDING SHALL BE THOROUGHLY PLANTED WITH STABILIZATION MATERIAL CONSISTING OF FERTILIZER, SEED, FERTILIZER AND WATER, MIXED AND APPLIED IN THE FOLLOWING PROPORTIONS AVAILABLE FROM PACIFIC COAST SEED, UNIFORMITY (925) 373-4447:

FERTILIZER (HYDROSTRAW AND TACK MULCH)	2500 LBS/ACRE
SEED (GRASS TO SOIL)	55 LBS/ACRE
FERTILIZER (16-20-0)	350 LBS/ACRE
MULCHER	125 LBS/ACRE

 WATER AS REQUIRED FOR APPLICATION

ADDITIONAL NOTES:

1. **GENERAL CONTROL POINT OF CONTACT:** THIS PERSON WILL BE RESPONSIBLE FOR EROSION CONTROL AT THE SITE AND WILL BE THE COUNTY'S MAIN POINT OF CONTACT IF CORRECTIONS ARE REQUIRED.
 - NAME: _____
 - TITLE/QUALIFICATION: _____
 - PHONE: _____
 - ADDRESS: _____
2. **PERFORM CLEANING AND EXHAUSTING ACTIVITIES ONLY DURING DRY WEATHER.** MEASURES TO ENSURE EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO EXHAUSTING ACTIVITIES AND CONSTRUCTION.
3. MEASURES TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL ARE REQUIRED YEAR-ROUND. STABILIZE ALL EXPOSED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30.
4. STORE HAZARDOUS AND DISPOSABLE CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.
5. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS INCLUDING PAVERSMENT OILS, WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASHWATER OR SEDIMENTS, AND NON-STERILIZED ORGANISMS TO STORM DRAINS AND WATERCOURSES.
6. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DETAHERING SITE AND OBTAIN REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) PERMITS AS NECESSARY.
7. AVOID CLEANING, FILLING, OR MAINTAINING VEHICLE ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASHWATER IS CONTAINED AND TREATED.
8. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTING RUNOFF.
9. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
10. AVOID TRACKING DIRT OR OTHER MATERIAL OFF-SITE. CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SHEETING METHODS.
11. TRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE WATERBODIED PROTECTION MAINTENANCE STANDARDS AND CONSTRUCTION BEST MANAGEMENT PRACTICES.
12. PLACEMENT OF EROSION MATERIALS AT THESE LOCATIONS IS REQUIRED ON WEEKENDS AND DURING RAIN EVENTS.
 - A) CONSTRUCTION MATERIAL STORAGE AREA AS SHOWN ON (4-2)
13. THE AREA INDICATED ON THE PLANS FOR PARKING, GRUBBING, STORAGE ETC., SHALL NOT BE ENLARGED OR "BURN OVER."
14. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS ON-SITE DURING THE "OFF-SEASON."
15. DUST CONTROL IS REQUIRED YEAR-ROUND.
16. EROSION CONTROL MATERIALS SHALL BE STORED ON-SITE.
17. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES WHERE THE STOCKPILE IS ALSO PROTECTED WITH FRESH MULCH CONTAINING THE GRADE OF THE STOCKPILE.
18. THE TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.

TREE PROTECTION NOTES:

- LANDSCAPE BUFFER:**
1. WHERE TREE PROTECTION DOES NOT COVER THE ENTIRE ROOT ZONE OF THE TREES, A LANDSCAPE BUFFER CONSISTING OF WOOD CHIPS SPREAD TO A DEPTH OF SIX INCHES SHALL BE PLACED WHERE ROOT TRAP IS EXPECTED TO BE HEAVY. THE LANDSCAPE BUFFER WILL HELP TO REDUCE COMPACTION TO THE UNPROTECTED ROOT ZONE.
- ROOT CUTTING:**
2. ANY ROOTS TO BE CUT SHOULD BE MONITORED AND DOCUMENTED. LARGE ROOTS OR LARGE MASSES OF ROOTS TO BE CUT SHOULD BE INSPECTED BY THE SITE ARCHITECT. THE SITE ARCHITECT MAY RECOMMEND PROTECTION OR PRUNING AT THAT TIME. CUT ALL ROOTS CLEAN WITH A SAW OR LOPPERS. ROOTS TO BE LEFT EXPOSED FOR A PERIOD OF TIME SHOULD BE COVERED WITH LAYERS OF BURLAP AND KEPT MOIST. ALL ROOTS ENCOUNTERED MEASURING 2 INCHES IN DIAMETER OR OVER SHALL BE DOCUMENTED AND REMAIN DAMAGE FREE FOR THE TREE ARCHITECT TO VIEW. MITIGATION MEASURES WILL BE APPLIED AT THAT TIME.
- PRUNING AND EXCAVATION:**
3. PRUNING FOR IRRIGATION, ELECTRICAL, DRAINAGE OR ANY OTHER REASON, SHOULD BE HAND DUG WHEN BENEATH THE DUBLINE OF LINED TREES. HAND DIGGING AND CAREFUL PLACEMENT OF PILES BELOW OR BEHIND PROTECTED ROOTS WILL DRAMATICALLY REDUCE ROOT LOSS. THIS INCLUDING TRUNKS TO DESIRED TREE. TRUNKS SHOULD BE BACK FILLED AS SOON AS POSSIBLE USING NATIVE MATERIALS AND COMPACTED TO NEAR ORIGINAL LEVELS. TRUNKS TO BE LEFT OPEN WITH EXPOSED ROOTS SHALL BE COVERED WITH BURLAP AND KEPT MOIST. FLYWOOD LAB OVER THE TRUNK WILL HELP TO PROTECT ROOTS BELOW.
- IRRIGATION:**
4. NORMAL IRRIGATION SHOULD BE MAINTAINED THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT. ALL OF THE PROTECTED TREES WILL REQUIRE NORMAL IRRIGATION. THIS INCLUDES THE REDWOOD TREE PROTECTION SHOULD CONSIST OF SURFACE FLOODING WITH ENOUGH WATER TO WET THE ENTIRE ROOT ZONE. IF THE ROOT ZONE IS TRANSVERSE THIS TYPE OF IRRIGATION SHOULD BE CARRIED OUT TWO TIMES PER MONTH DURING THE WARM DRY SEASON.
- INSPECTION:**
5. THE SITE WILL BE INSPECTED AFTER TREE PROTECTION MEASURES ARE INSTALLED AND BEFORE THE START OF CONSTRUCTION. OTHER INSPECTIONS WILL BE CARRIED OUT ON AN AS NEEDED BASIS. ANY TIME WORK IS WITHIN 30 FEET OF THE PROTECTED TREE ON-SITE, THE SITE ARCHITECT MUST BE NOTIFIED 48 HOURS IN ADVANCE SO THAT A SITE VISIT CAN BE SCHEDULED DURING THE PROPOSED WORK.
- EROSION CONTROL DURING TREE REMOVAL PHASE:**
6. DURING THE TREE REMOVAL PHASE, THE APPLICANT SHALL PURSUANT TO CHAPTER 4.00 OF THE SAN MATEO COUNTY ORGANIC CODE, MINIMIZE THE TRANSPORT AND DISCHARGE OF STORMWATER RUNOFF FROM THE CONSTRUCTION SITE BY:
 - 6. STABILIZING ALL EXPOSED AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30.
 - 7. MONITORING SLOPES PROMPTLY AND AVOIDING 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.
 - 8. STORING, HANDLING, AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO AVOID THEM ENTRY TO THE STORM DRAIN SYSTEM OR WATER BODY.
 - 9. USING FILTRATION OR OTHER MEASURES TO REMOVE SEDIMENT FROM DETAHERING EFFLUENT.
 - 10. AVOIDING CLEANING, FILLING, OR MAINTAINING VEHICLE ON-SITE, EXCEPT IN AN AREA DESIGNATED TO CONTAIN AND TREAT RUNOFF.
 - 11. LIMITING AND TIMING APPLICATION OF PESTICIDES AND FERTILIZERS TO AVOID POLLUTING RUNOFF.
- COUNTY RIGHT-OF-WAY:**
12. PRIOR TO THE REMOVAL OF ANY TREES LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY, THE APPLICANT SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS. ADDITIONALLY, PRIOR TO PLANTING ANY TREES WITHIN THE PUBLIC RIGHT-OF-WAY, THE APPLICANT SHALL OBTAIN A LANDSCAPING/ENCROACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS.
 13. THE APPLICANT SHALL CLEAR ALL DEBRIS FROM THE PUBLIC RIGHT-OF-WAY.

REV	DATE	BY	CHKD

DATE: 3/27/18
SCALE: AS NOTED
DESIGNED BY: RW
DRAWN BY: RW
SHEET NO. D-3

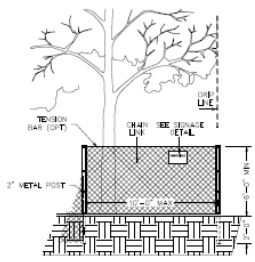


NEW RESIDENCE
9000 MENLO OAKS DRIVE
MENLO PARK, CA
APN: 062-160-090 SAN MATEO COUNTY

EROSION CONTROL
& TREE PROTECTION
NOTES

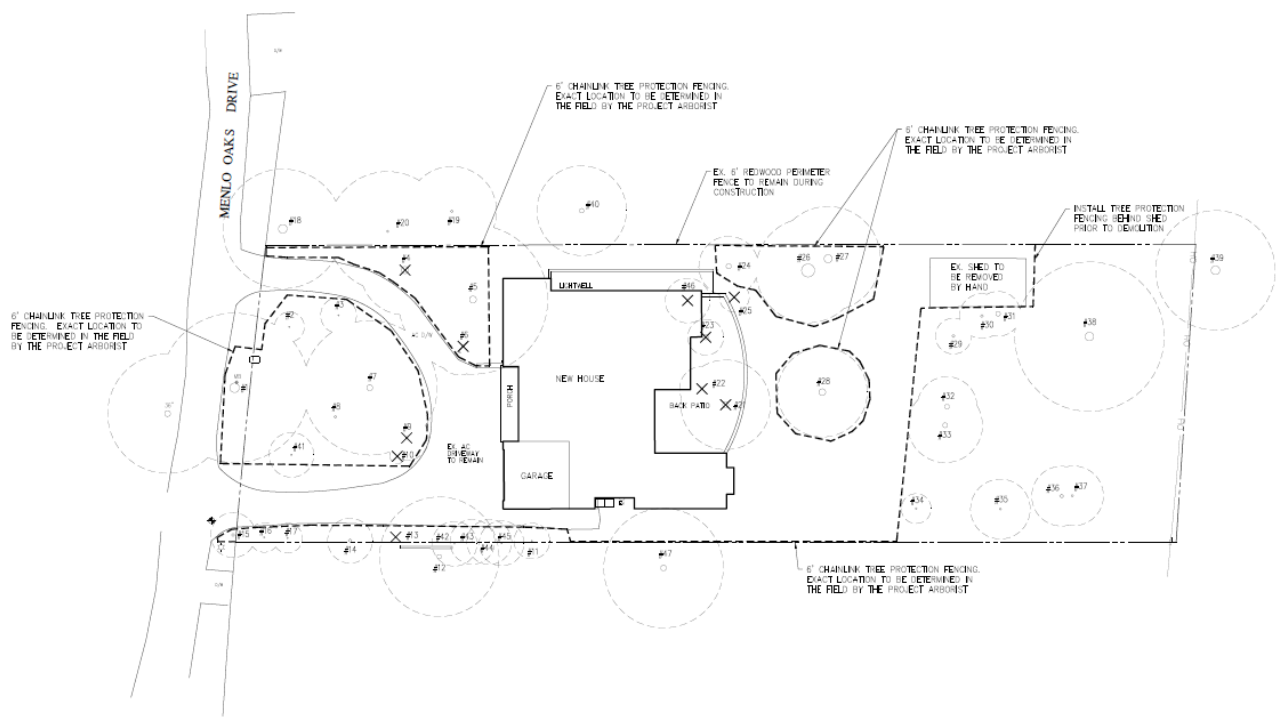
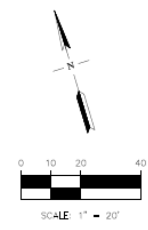
San Mateo County Planning Commission Meeting

Owner/Applicant: _____ Attachment: _____
File Numbers: _____



EXISTING TREE PROTECTION DETAILS

1. PRIOR TO THE COMMENCEMENT OF ANY GRADING, TREE PROTECTION FENCING SHALL BE IN PLACE IN ACCORDANCE WITH THE TREE PRESERVATION PLAN AND INSPECTED BY A CERTIFIED ARBORIST. THE ARBORIST SHALL MONITOR CONSTRUCTION ACTIVITY TO ENSURE THAT THE TREE PROTECTION MEASURES ARE IMPLEMENTED AND MAINTAINED THROUGHOUT CONSTRUCTION. THIS CONDITION SHALL BE INCORPORATED INTO THE GRADING PLANS.
2. FENCE SHALL BE MINIMUM 6 FEET TALL, CONSTRUCTED OF STURDY MATERIAL (CHAIN-LINK OR EQUIVALENT STRENGTH/DURABILITY).
3. FENCE SHALL BE SUPPORTED BY METAL POSTS DRIVEN 2 FEET (MIN) INTO THE GROUND AND SPACED NOT MORE THAN 10 FEET APART.
4. TREE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE DURING THE CONSTRUCTION PERIOD. INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION. REPAIRED AS NECESSARY TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE UNTIL THE FINAL INSPECTION.
5. A SIGN THAT INCLUDES THE WORDS "TREE PROTECTION" SHALL BE KEPT OUT WARNING. THE FENCE SHALL NOT BE REMOVED WITHOUT THE EXPRESSED PERMISSION OF THE SAN MATEO COUNTY PLANNING OFFICE. IT SHALL BE SECURELY ATTACHED TO THE FENCE IN A VISUALLY PROMINENT LOCATION.



NO.	DIR.	TYPE	IDENTITY	STATUS
1	SW	VALLEY OAK	#1	TO BE KEPT
2	E	COLORADO BLUE SPRUCE	#2	TO BE KEPT
3	E	COAST QUERCUS	#3	TO BE KEPT
4	SW	WILLOW	#4	TO BE KEPT
5	SW	VALLEY OAK	#5	TO BE KEPT
6	W	WESTERN RED BUD	#6	TO BE KEPT
7	W	COAST QUERCUS	#7	TO BE KEPT
8	SW	WILLOW	#8	TO BE KEPT
9	W	WILLOW	#9	TO BE KEPT
10	SW	STRAWBERRY TREE	#10	TO BE KEPT
11	SW	COAST QUERCUS	#11	TO BE KEPT
12	SW	COAST QUERCUS	#12	TO BE KEPT
13	SW	WILLOW	#13	TO BE KEPT
14	SW	COAST QUERCUS	#14	TO BE KEPT
15	SW	COAST QUERCUS	#15	TO BE KEPT
16	SW	WILLOW	#16	TO BE KEPT
17	SW	WILLOW	#17	TO BE KEPT
18	SW	REDWOOD	#18	TO BE KEPT
19	SW	COAST QUERCUS	#19	TO BE KEPT
20	SW	CATALPA BERRY	#20	TO BE KEPT
21	SW	YUCCA	#21	TO BE KEPT
22	SW	ORANGE GROVE	#22	TO BE KEPT
23	SW	WILLOW	#23	TO BE KEPT
24	SW	COAST QUERCUS	#24	TO BE KEPT
25	SW	COAST QUERCUS	#25	TO BE KEPT
26	SW	REDWOOD	#26	TO BE KEPT
27	SW	REDWOOD	#27	TO BE KEPT
28	SW	COAST QUERCUS	#28	TO BE KEPT
29	SW	COAST QUERCUS	#29	TO BE KEPT
30	SW	COAST QUERCUS	#30	TO BE KEPT
31	SW	COAST QUERCUS	#31	TO BE KEPT
32	SW	COAST QUERCUS	#32	TO BE KEPT
33	SW	COAST QUERCUS	#33	TO BE KEPT
34	SW	WILLOW	#34	TO BE KEPT
35	SW	YUCCA	#35	TO BE KEPT
36	SW	COAST QUERCUS	#36	TO BE KEPT
37	SW	COAST QUERCUS	#37	TO BE KEPT
38	SW	COAST QUERCUS	#38	TO BE KEPT
39	SW	COAST QUERCUS	#39	TO BE KEPT
40	SW	COAST QUERCUS	#40	TO BE KEPT
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42	SW	COAST QUERCUS	#42	TO BE KEPT
43	SW	COAST QUERCUS	#43	TO BE KEPT
44	SW	COAST QUERCUS	#44	TO BE KEPT
45	SW	COAST QUERCUS	#45	TO BE KEPT
46	SW	COAST QUERCUS	#46	TO BE KEPT
47	SW	COAST QUERCUS	#47	TO BE KEPT

LEGEND



RW ENGINEERING, INC.
 300 ATWANT DRIVE
 REDWOOD CITY, CA 94063
 (650) 365-8899
 Fax: (650) 365-8898
 rw@rw-engineer.com



NEW RESIDENCE
900 MENLO OAKS DRIVE
MENLO PARK, CA
 SAN MATEO COUNTY
 APN: 062-180-090

TREE PROTECTION PLAN

DATE: 3/21/16
 SCALE: AS NOTED
 DESIGNED BY: RW
 DRAWN BY: RW
 SHEET NO.

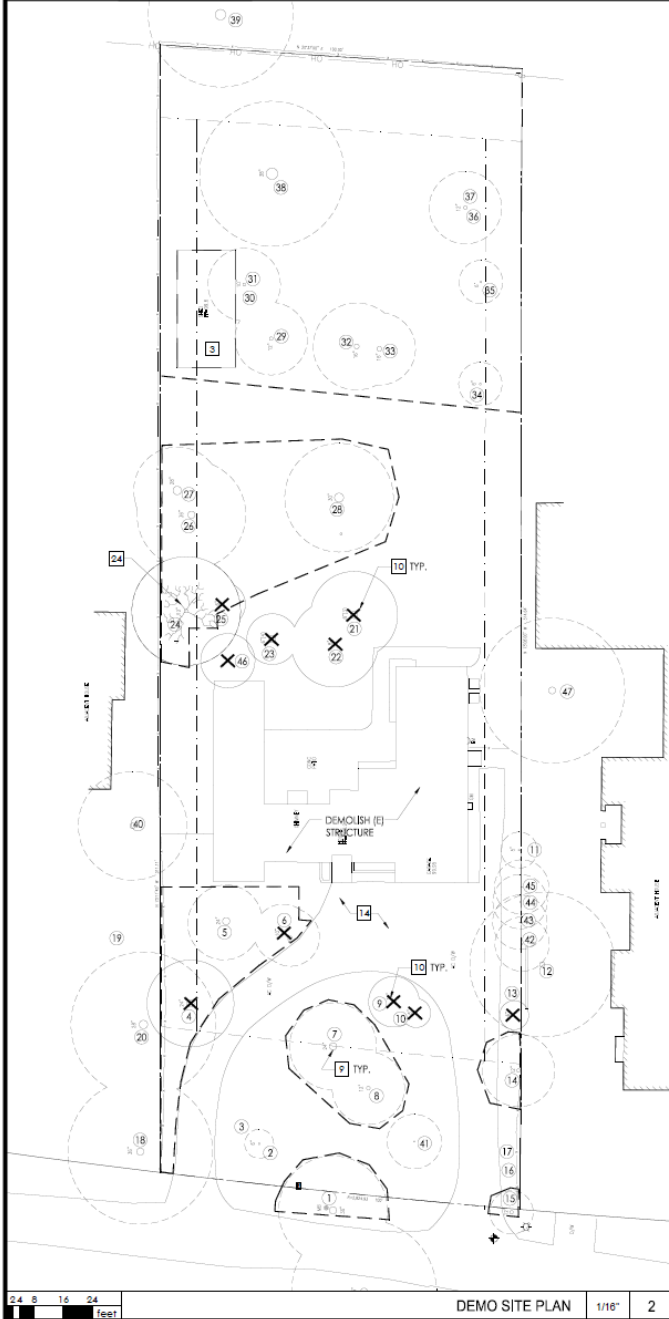
D-4

San Mateo County Planning Commission Meeting

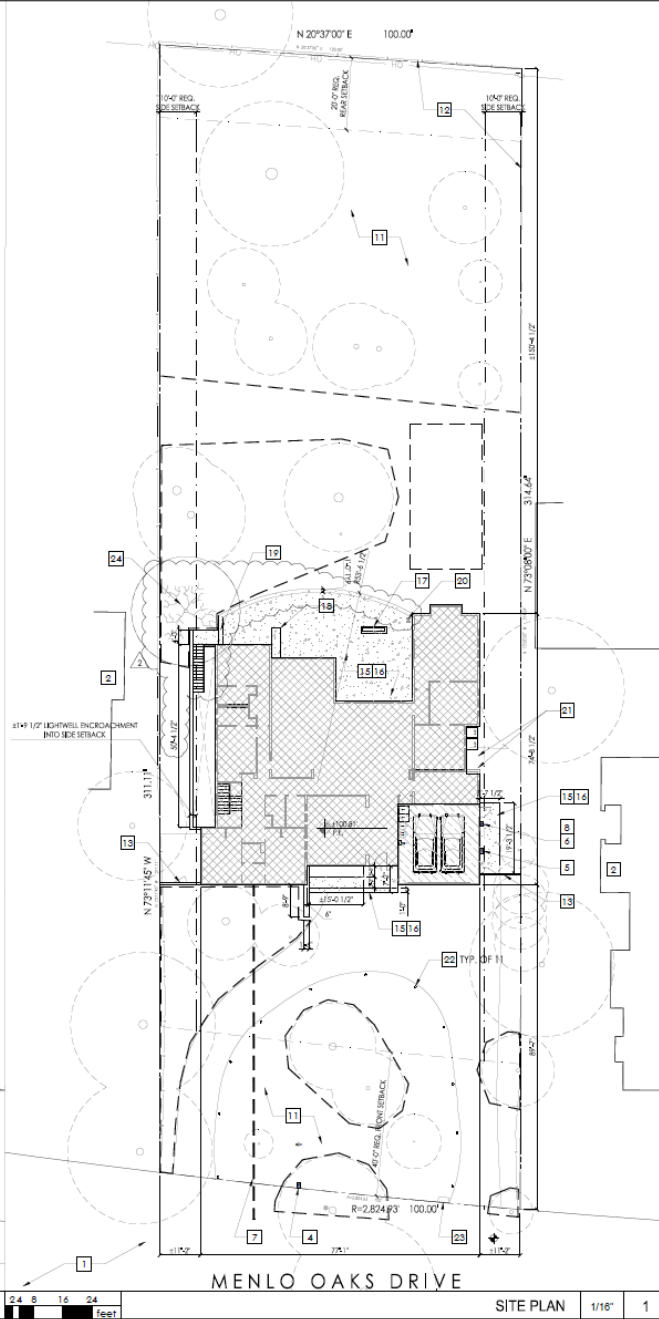
Owner/Applicant: _____

File Numbers: _____

Attachment: _____



DEMO SITE PLAN 1/16" 2



SITE PLAN 1/16" 1

- # = NUMBER TO KEY NOTE BELOW
- 1. EXISTING PUBLIC RIGHT OF WAY--ANY CONSTRUCTION WITHIN THE CITY RIGHT-OF-WAY MUST HAVE AN APPROVED PERMIT FOR CONSTRUCTION IN THE PUBLIC STREET PRIOR TO THE COMMENCEMENT OF THIS WORK. THE PERFORMANCE OF THIS WORK IS NOT AUTHORIZED BY THE BUILDING PERMIT ISSUANCE BUT SHOWN ON THE BUILDING PERMIT FOR INFORMATION ONLY
- 2. APPROXIMATE LOCATION OF NEIGHBORING STRUCTURE
- 3. (E) SHED TO BE REMOVED BY HAND PER ARBORIST REPORT
- 4. (N) WATER METER--CONTRACTOR TO COORDINATE (N) METER WITH LOCAL WATER COMPANY IF REQUIRED BY INCREASED FIXTURE LOAD
- 5. (N) GAS METER LOCATION
- 6. (N) ELECTRICAL METER LOCATION--CONTRACTOR TO COORDINATE WITH PG&E FOR UPGRADE (400AMP) TO (E) ELECTRICAL SERVICE
- 7. (N) 4" SEWER LATERAL--CONTRACTOR TO VERIFY LOCATION IN FIELD
- 8. UFER GROUND CONNECTION PER CBC 250-52
- 9. (E) TREE(S) TO REMAIN- PROTECT AS REQUIRED DURING CONSTRUCTION - DO NOT LEAVE MATERIALS OR EQUIPMENT IN ROOT AREAS FOR EXTENDED PERIODS OF TIME. SEE ARBORIST REPORT (IF PROVIDED) FOR ADDITIONAL INFORMATION
- 10. (E) TREE(S) TO BE REMOVED PER ARBORIST REPORT
- 11. (E) SOFTSCAPE TO REMAIN
- 12. (E) FENCE AND GATE TO REMAIN, TYP.
- 13. (N) FENCE AND GATE--5' TALL CEDAR TO MATCH WALL SIDING--VERIFY FINAL DESIGN AND FINISH WITH OWNER
- 14. (E) DRIVEWAY TO REMAIN--PROTECT FROM DAMAGE AND REPAIR ANY DAMAGE CAUSED DURING CONSTRUCTION--SEE CIVIL PLANS FOR REPLACEMENT REQUIREMENTS FOR LEFT-SIDE (NORTH) DRIVEWAY APPROACH
- 15. (N) HARDSCAPE--SLOPE AWAY FROM HOUSE @ 2% MIN.
- 16. (N) 36" MIN. DEEP LEVEL LANDING PER CRC 311.3 W/ STEPS (MAX. 7.75" RISER)--PROVIDE EQUAL RISERS IF MORE THAN 1 STEP
- 17. (N) GAS FIRE PIT--COORDINATE WITH MFR. CUT SHEETS
- 18. (N) OUTDOOR KITCHEN--SEE DETAIL 1/AS.4
- 19. (N) BENCH--CEDAR TO MATCH WALL SIDING
- 20. (N) COLUMN--S.S.D.
- 21. (N) A/C UNIT CONDENSER PADS--PROVIDE ELECTRICAL TO THIS LOCATION AS REQUIRED. VERIFY SIZE AND QUANTITY WITH HVAC CONTRACTOR. A/C UNITS TO COMPLY WITH JURISDICTION'S NOISE ORDINANCE
- 22. DARK SKY COMPLIANT LIGHT BOLLARDS--MATERIAL: HINKLEY; STYLE: ATLANTIS BOLLARD 1560182-LED; COLOR: BRONZE--TIE IN TO PHOTOSENSOR CIRCUIT
- 23. MAILBOX AND ADDRESS MONUMENT--SEE DETAIL 1/AS.2--PROVIDE POWER FOR ILLUMINATED ADDRESS NUMBERS
- 24. APPROXIMATE ROOT LAYOUT PER ARBORIST REPORT

SITE PLAN KEYNOTES

--- PROPERTY LINE--SEE TOPO SURVEY FOR MORE INFO
 - - - - - REQUIRED YARD SETBACK/EASEMENT

NEW GARAGE AREA
 NEW LIVING AREA
 NEW HARDSCAPE--SEE FINISH PLAN FOR MORE INFO

SPOT ELEVATION, SEE CIVIL DRAWINGS FOR MORE INFO
 TREE NUMBER

- NOTES:
1. (E) WATER SUPPLY TO BE REPLACED FROM METER IN.
 2. (E) SEWER LATERAL TO BE REPLACED FROM PROPERTY LINE IN.
 3. SEE A1.1 AND CIVIL PLANS FOR TREE PROTECTION SCHEDULE

SITE PLAN LEGEND -



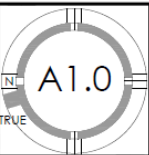
1000 S Winchester Blvd
 San Jose, CA 95128
 P : (408) 996-0988
 F : (408) 404-0144

ACHARYA-MAHADEVAN
 RESIDENCE
 NEW SINGLE FAMILY RESIDENCE
 900 MENLO OAKS DRIVE
 MENLO PARK (SMC), CA
 NANDINI ACHARYA & ROHAN MAHADEVAN



DATE	DESCRIPTION	BY
06.21.2017	GRADING PERMIT SUBMITTAL	SJR
07.25.2017	GRADING PERMIT RESUBMITTAL	SJR
08.04.2017	BUILDING PERMIT SUBMITTAL	SJR
11.22.2017	BUILDING PERMIT RESUBMITTAL	SJR
10.08.2018	GRADING PERMIT RESUBMITTAL	SJR

SITE PLAN & DEMO SITE PLAN



San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:



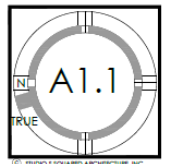
1000 S Winchester Blvd
San Jose, CA 95128
P : (408) 998 - 0983
F : (408) 404 - 0144

ACHARYA-MAHADEVAN
RESIDENCE
NEW SINGLE-FAMILY RESIDENCE
900 MENLO OAKS DRIVE,
MENLO PARK (S/M/C), CA
NANDINI ACHARYA & ROHANI MAHADEVAN

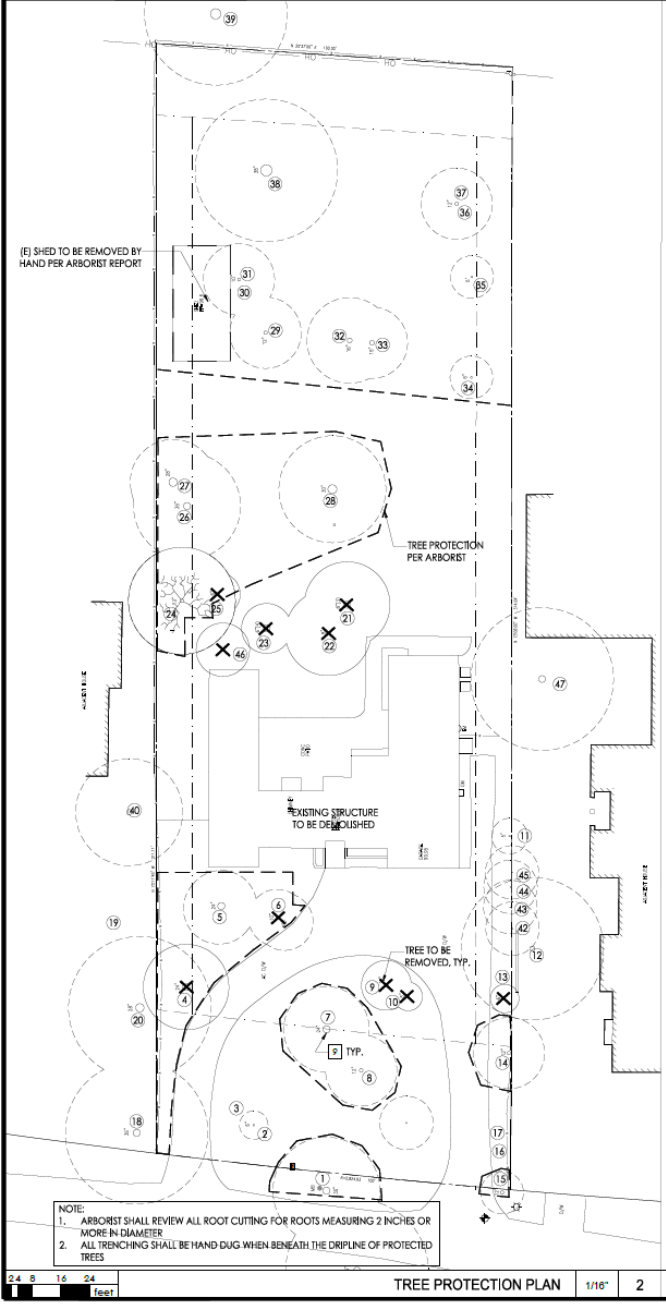


PROJECT NO.	DATE	DESCRIPTION
16-020	06/21/2017	GRADING PERMIT SUBMITTAL
	07/25/2017	GRADING PERMIT RESUBMITTAL
	06/04/2017	BUILDING PERMIT SUBMITTAL
	12/22/2017	BUILDING PERMIT RESUBMITTAL
	03/08/2018	GRADING PERMIT RESUBMITTAL

TREE PROTECTION PLAN



© STUDIO 3 SQUARED ARCHITECTURE, INC.



900 Menlo Oaks /1/3/17 (2)

Tree#	Species	DBH	CON	HT/SP	Comments
18	Valley oak (<i>Quercus lobata</i>)	35eat	45	40/30	Fair vigor, poor form, heavy lean south, large lateral leaders, supported by 2 wooden props, heavy decay in leader with prop, tree live in decayed area, aesthetically pleasing, needs a great deal of maintenance to be able to retain tree.
2	Colorado blue spruce (<i>Picea pungens</i>)	6.1	55	30/10	Fair to poor vigor, good form.
3	Coast live oak (<i>Quercus agrifolia</i>)	6.4	65	20/12	Good vigor, fair form, young tree, volunteer.
4S	Incense cedar (<i>Calocedrus decurrens</i>)	28.7	45	70/30	Fair to poor vigor, poor form, leans towards building, suppressed by neighbor's redwoods, abundance of dead wood and dead limbs.
5S	Valley oak (<i>Quercus lobata</i>)	27.9	65	60/50	Good vigor, fair form, heavy to the south east, dead limbs on suppressed side of tree, oak bark canker, aesthetically pleasing, 10 feet from corner of the home.
6	Western red bud 10@base (<i>Cercis occidentalis</i>)	10@	15/15		Poor vigor, poor form, suppressed, in decline.
7S	Coast live oak (<i>Quercus agrifolia</i>)	23.4	65	30/45	Fair vigor, fair form, codominant at 10 feet with good crotch formations, needs maintenance to be visually appealing.
8	Xyloea (<i>Xyloea</i> spp.)	4.8	50	12/12	Fair vigor, fair form, suppressed.
9	Holly 10@base (<i>Ilex aquifolium</i>)	10@	20/15		Poor vigor, poor form, multi leader at base, suppressed, in decline.
10	Strawberry tree (<i>Arbutus unedo</i>)	5.8	50	12/10	Fair vigor, poor form, suppressed, heavy lean.
11	Coast live oak (<i>Quercus agrifolia</i>)	5.6	55	12/12	Fair vigor, poor form, suppressed by #13, on property line, codominant at 5 feet with poor crotch formation.

900 Menlo Oaks /1/3/17 (4)

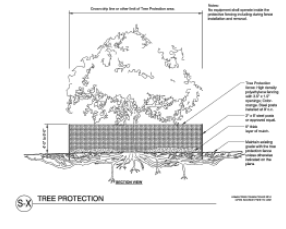
Tree#	Species	DBH	CON	HT/SP	Comments
24SR	Coast live oak (<i>Quercus agrifolia</i>)	20.7	60	40/20	Good vigor, fair form, suppressed by redwoods heavy towards home, needs maintenance.
25R	Coast live oak (<i>Quercus agrifolia</i>)	6.9	45	30/10	Fair vigor, poor form, tall for DBH, suppressed.
26S	Redwood (<i>Sequoia sempervirens</i>)	52.4	70	100/35	Fair vigor, fair form, possible failure in past near tree, 3 feet from #27.
27S	Redwood (<i>Sequoia sempervirens</i>)	52.1	70	100/35	Fair vigor, fair form, possible failure in past near tree, 3 feet from #26.
28S	Coast live oak (<i>Quercus agrifolia</i>)	26.5	45	35/30	Fair vigor, poor form, heavy decay at base on south side, multi leader at 8 feet, tree heavy to the south, hazard.
29S	Coast live oak (<i>Quercus agrifolia</i>)	12.9	45	40/12	Fair vigor, poor form, tall for DBH, poor live crown ratio, top heavy.
30S	Coast live oak (<i>Quercus agrifolia</i>)	12.5	45	30/15	Fair vigor, poor form, codominant with poor crotch formation, included bark, less than 1 foot from an accessory structure.
31S	Coast live oak (<i>Quercus agrifolia</i>)	19.1	45	30/15	Fair vigor, fair form, suppressed, 1 foot from building, top heavy.
32S	Coast live oak (<i>Quercus agrifolia</i>)	19.2	45	30/20	Good vigor, poor form, leans to the north, history of limb loss, suppressed, skinned up, 1 foot from #33, shares root zone.
33S	Coast live oak (<i>Quercus agrifolia</i>)	19.7	50	35/25	Fair vigor, poor form, leans south, codominant at 12 feet, poor crotch, 1 foot from #32, shares root zone.
34	Pivot (<i>Ligustrum japonicum</i>)	8.1	40	25/10	Poor vigor, poor form, suppressed, covered in ivy.
35	Tree of heaven (<i>Alnus altissima</i>)	8.9	45	25/20	Fair vigor, fair form, invasive species.
36S	Coast live oak (<i>Quercus agrifolia</i>)	16.2	60	35/20	Good vigor, fair form, slight lean south, codominant at 15 feet.

900 Menlo Oaks /1/3/17 (3)

Tree#	Species	DBH	CON	HT/SP	Comments
12'S	Deciduar cedar 18-18eat (<i>Cedrus deodara</i>)	18-18eat	60	60/40	Fair vigor, poor to fair form, codominant at 2 feet with good crotch formation, leaders suppress each other, 8 feet from property line.
13	Tayon feet (<i>Eleocharis carolinifolia</i>)		0	15/8	DEAD
14S	Coast live oak (<i>Quercus agrifolia</i>)	14.0	60	30/15	Fair vigor, poor form, codominant at 10 feet with included bark, on property line.
15S	Coast live oak (<i>Quercus agrifolia</i>)	12.2	60	15/15	Fair vigor, poor form, big sweep in trunk, heavy to the south east, aesthetically pleasing, on property line.
16	Bay (<i>Umbellularia californica</i>)	7.2	30	30/10	Nearly dead.
17	Olive (<i>Olea europaea</i>)	5.9	45	25/10	Fair vigor, poor form, tall for DBH, heavily suppressed, on property line.
18'S	Redwood (<i>Sequoia sempervirens</i>)	35eat	70	100/40	Good vigor, fair form, in grove of 4 redwoods, 4 feet from property line.
19'S	Coast live oak (<i>Quercus agrifolia</i>)	12eat	80	35/30	Good vigor, fair form, 10 feet from property line.
20	Catalina cherry (<i>Prunus ilicifolia</i>)	10eat	50	30/20	Fair vigor, poor form, heavily suppressed, codominant at 8 feet.
21SR	Tulip magnolia (<i>Magnolia grandiflora</i>)	9/4	45	25/30	Poor vigor, fair to poor form, multi leader at base, improper cabling done in past is slightly girdling tree, in decline, drought stressed.
22R	Crape myrtle (<i>Lagerstroemia</i> spp.)	9.8	30	20/15	Poor vigor, poor form, split crotch failed tree, in decline.
23SR	Irish yew (<i>Taxus baccata</i>)	20.9	40	25/12	Poor vigor, poor form, in decline.

900 Menlo Oaks /1/3/17 (5)

Tree#	Species	DBH	CON	HT/SP	Comments
37	Catalina cherry (<i>Prunus ilicifolia</i>)	10.0	30	15/20	Poor vigor, poor form, nearly dead, if removed it improves #36.
38S	Coast live oak (<i>Quercus agrifolia</i>)	35.2	45	40/50	Fair vigor, poor form, leans south, decay at 2 feet on north side of trunk, codominant at 19 feet, heavy decay at 10 feet on south side of tree, history of limb loss, supported by wooden beam that is bending, good location, hazardous.
39'S	Coast live oak (<i>Quercus agrifolia</i>)	35eat	65	40/40	Good vigor, good form, 10 feet from property line.
40'S	Coast live oak (<i>Quercus agrifolia</i>)	18eat	55	35/30	Good vigor, fair form, decay at 10 feet, 5 feet from property line.
41	Valley oak (<i>Quercus lobata</i>)	5.5	80	20/12	Good vigor, good form, young tree, volunteer, suppressed by #1.
42	Coast live oak (<i>Quercus agrifolia</i>)	4.3	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
43	Coast live oak (<i>Quercus agrifolia</i>)	3.2	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
44	Coast live oak (<i>Quercus agrifolia</i>)	3.3	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
45	Coast live oak (<i>Quercus agrifolia</i>)	5.8	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
46	Coast live oak (<i>Quercus agrifolia</i>)	5.3	45	15/10	Fair vigor, poor form, suppressed, leans over home, young volunteer.
47'S	Coast live oak (<i>Quercus agrifolia</i>)	22.7	80	40/40	Good vigor, good form, 13 feet 7 inches from existing home, on neighbor's property.



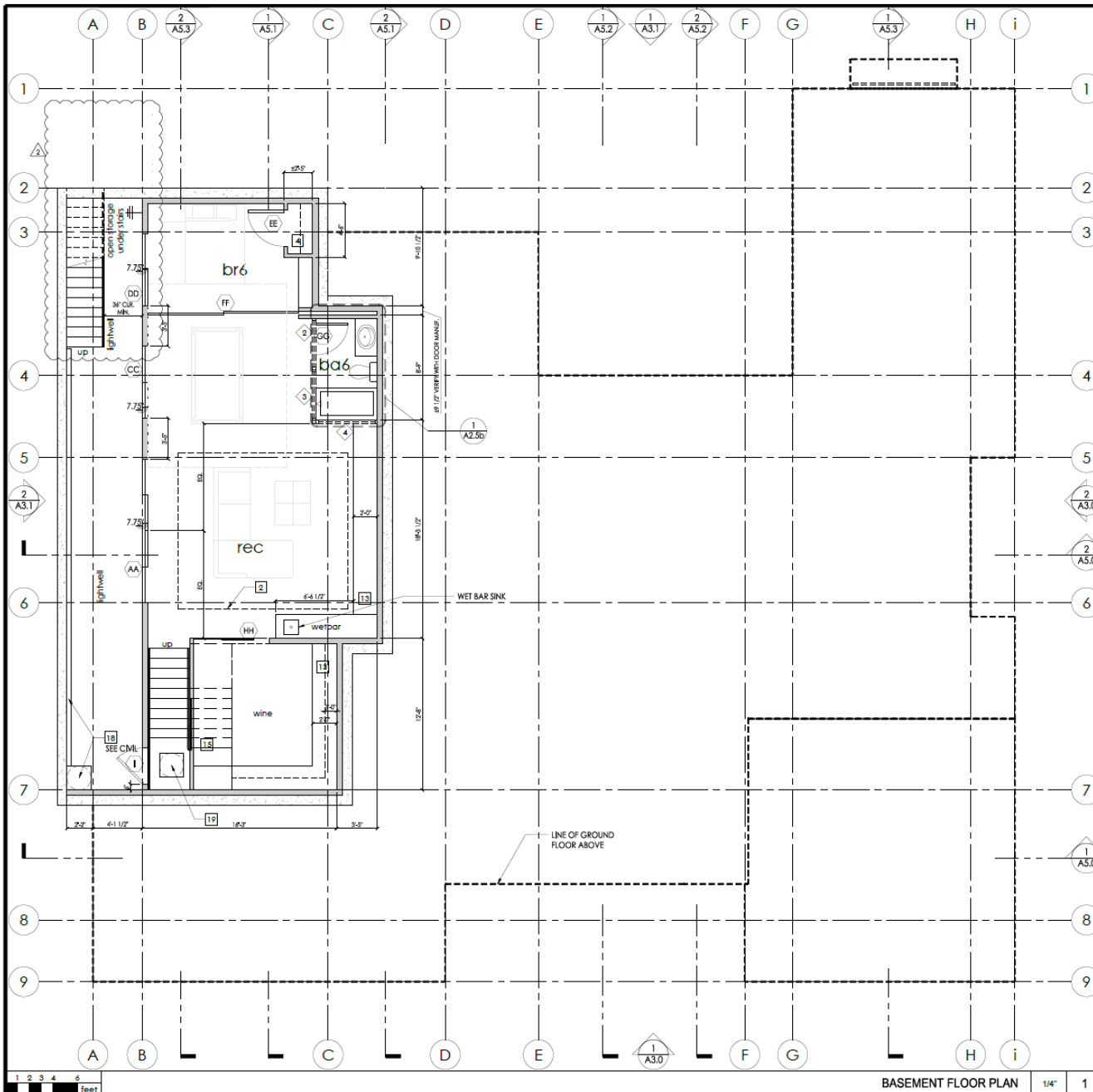
TREE CHART - REFER TO ARBORIST REPORT FOR MORE INFO 1

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:



- # = NUMBER TO KEY NOTE BELOW
- (N) CONCRETE STEP(S)--10" MIN. TREAD AND MAX. 7" RISER HEIGHT
 - LINE OF BEAM, SOFFIT AND/OR CROWN MOLDING ABOVE, TYP. SEE ALSO REFLECTED CEILING PLAN
 - INDICATES PREFAB CLOSET SYSTEM (OWNER PROVIDE/CONTRACTOR INSTALL)
 - INDICATES ROD AND SHELF AT 24" O.A.F.--VERIFY HEIGHT WITH OWNER
 - (N) PREMANUFACTURED 72" DIRECT-VENT SEALED-COMBUSTION GAS FIREPLACE, TO BE LISTED AND LABELED, TESTED BY AN APPROVED TESTING LABORATORY, AND INSTALLED IN ACCORDANCE WITH LISTING AND MANUF. INSTALLATION INSTRUCTIONS. FIREPLACE SHALL HAVE CLOSABLE METAL OR GLASS COVERING THE ENTIRE OPENING OF THE FIREBOX. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE WITH UL-127. FIREPLACE TO COMPLY WITH EPA PHASE II EMISSION LIMITS--MANUF. HEAT N GLO. STYLE: PRM072; UL LISTING: ANSI Z21.50-2014--VERIFY FINAL SELECTION WITH OWNER PRIOR TO PLACING ORDER
 - HEAT N GLO PRM048 FIREPLACE, SEE KEYNOTE 5 ABOVE FOR MORE INFO
 - SITE BUILT GAS FIRE PIT WITH LINEAR BURNER--INSTALL PER MANUF INSTRUCTIONS
 - OUTDOOR KITCHEN--PROVIDE SINK STOPPER TO PREVENT STORM WATER FROM ENTERING SEWER SYSTEM
 - (N) 18" X 24" MIN. CRAWLSPACE ACCESS
 - (N) WATER HEATER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A3.12. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR--SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS--SEE DETAIL S/A8.2
 - (N) AIR HANDLER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT--PROVIDE 30" WIDE, HIGH, AND DEEP CLEAR WORKING SPACE PER CMC 305.0--SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS
 - SKYLIGHT--SEE RCP AND WINDOW SCHEDULE FOR MORE INFORMATION--CONTRACTOR TO USE SHAPED FRAMING MEMBERS TO ENSURE THAT SKYLIGHT SHAFT HAS NO JOGS OR ANGLES THAT ARE NOT SHOWN IN PLANS
 - CUSTOM CABINETRY
 - FULL HEIGHT LINEN CABINET WITH SHELVES, KRAFTMAID OR EQUAL
 - INSTALL MIN. 1/2" GYP.BD. ON WALLS, UNDER-STAIR SURFACE, AND ANY SOFFITS AT ENCLOSED ACCESSIBLE SPACE UNDER STAIRS PER CRC 302.7
 - ZURN 2880 OR EQ. 2-1/2" WIDE TRENCH DRAIN--SEE CIVIL PLANS FOR MORE INFO
 - RETURN AIR REGISTER ABOVE DOOR
 - LIGHTWELL TRENCH DRAIN AND SUMP PUMP--SEE CIVIL PLANS FOR MORE INFO
 - APPROXIMATE LOCATION OF SEWAGE EJECTOR--CONTRACTOR TO DETERMINE FINAL LOCATION IN FIELD
 - HYDRONIC RADIANT HEAT SYSTEM BOILER WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT--PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR
 - HYDRONIC RADIANT HEAT SYSTEM STORAGE TANK WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. TANK TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A3.12--SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS--SEE DETAIL S/A8.2
- NOTE:
- SEE 2/A3.10 FOR PLUMBING GENERAL NOTES
 - SEE 2/A3.10 FOR MECHANICAL GENERAL NOTES
 - SEE 4/A3.10 FOR ELECTRICAL GENERAL NOTES
 - SEE 5/A3.10 FOR PLAN AND INTERIOR GENERAL NOTES
- | FLOOR PLAN KEYNOTES | | |
|---------------------|--|--|
| [Symbol] | (N) WALL: EXTERIOR: 2x6 STUDS @16" O.C.; INTERIOR 2x4 STUDS @16" O.C. TYP. U.N.O.--SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR EXTERIOR WALL MATERIAL ASSEMBLIES. INSTALL 1 LAYER (MIN.) OF WEATHER RESISTIVE BARRIER (TYVEK HOUSE WRAP OR EQ.) OVER EXTERIOR WALLS SHEATHING PER CRC 703.2--INSTALL PER MANUF. INSTRUCTIONS. PROVIDE 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE @ INTERIOR PARTITIONS. PROVIDE CEMENT BOARD OR TILE BACKER BOARD AT SHOWER/TUB LOCATIONS. ALL WALLS TO RECEIVE (N) PAINT FINISH. ALL CEILING AT TUB/SHOWERS TO BE M.R. BOARD | |
| [Symbol] | NEW WALL W/ 1 HOUR SEPARATION--5/8" TYPE 'X' GYP ON GARAGE SIDE FROM FOUNDATION TO ROOF SHEATHING | |
| [Symbol] | NEW STAGGERED STUD ACOUSTICAL WALL PER DETAIL 9/A8.1 | |
| [Symbol] | DENOTES (N) HOSE BIBB. SEE PLANS FOR NEW LOCATION - INSTALL HOSE BIBBS PER CPC WITH APPROVED ANTI-SIPHON DEVICE. | |
| [Symbol] | (N) GAS COCK--REFER TO MANUF. SPECS FOR ELECTRICAL AND GAS REQUIREMENTS. PLUMBER TO VERIFY GAS PIPE DIAMETER NEEDED FOR APPLIANCE FROM GAS METER LOCATION | |
| [Symbol] | DOOR KEY--SEE A4.0 FOR MORE INFORMATION | |
| [Symbol] | WINDOW KEY--SEE A4.0 FOR MORE INFORMATION | |
| [Symbol] | FINISH FLOOR ELEVATION CHANGE | |
- FLOOR PLAN LEGEND



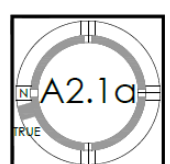
1000 S Winchester Blvd
 San Jose, CA 95128
 P : (408) 998 - 0983
 F : (408) 404 - 0144

ACHARYA-MAHADEVAN
 RESIDENCE
 NEW SINGLE FAMILY RESIDENCE
 900 MENLO OAKS DRIVE,
 MENLO PARK (SMC), CA
 NANDINI ACHARYA & ROHAN MAHADEVAN



DATE	DESCRIPTION	BY	CHKD
06/21/2017	GRADING PERMITS SUBMITTAL	SJR	
07/25/2017	GRADING PERMITS RESUBMITTAL	SJR	
08/04/2017	BUILDING PERMITS SUBMITTAL	SJR	
12/22/2017	BUILDING PERMITS RESUBMITTAL	SJR	
03/08/2018	GRADING PERMITS RESUBMITTAL	SJR	

BASEMENT FLOOR PLAN

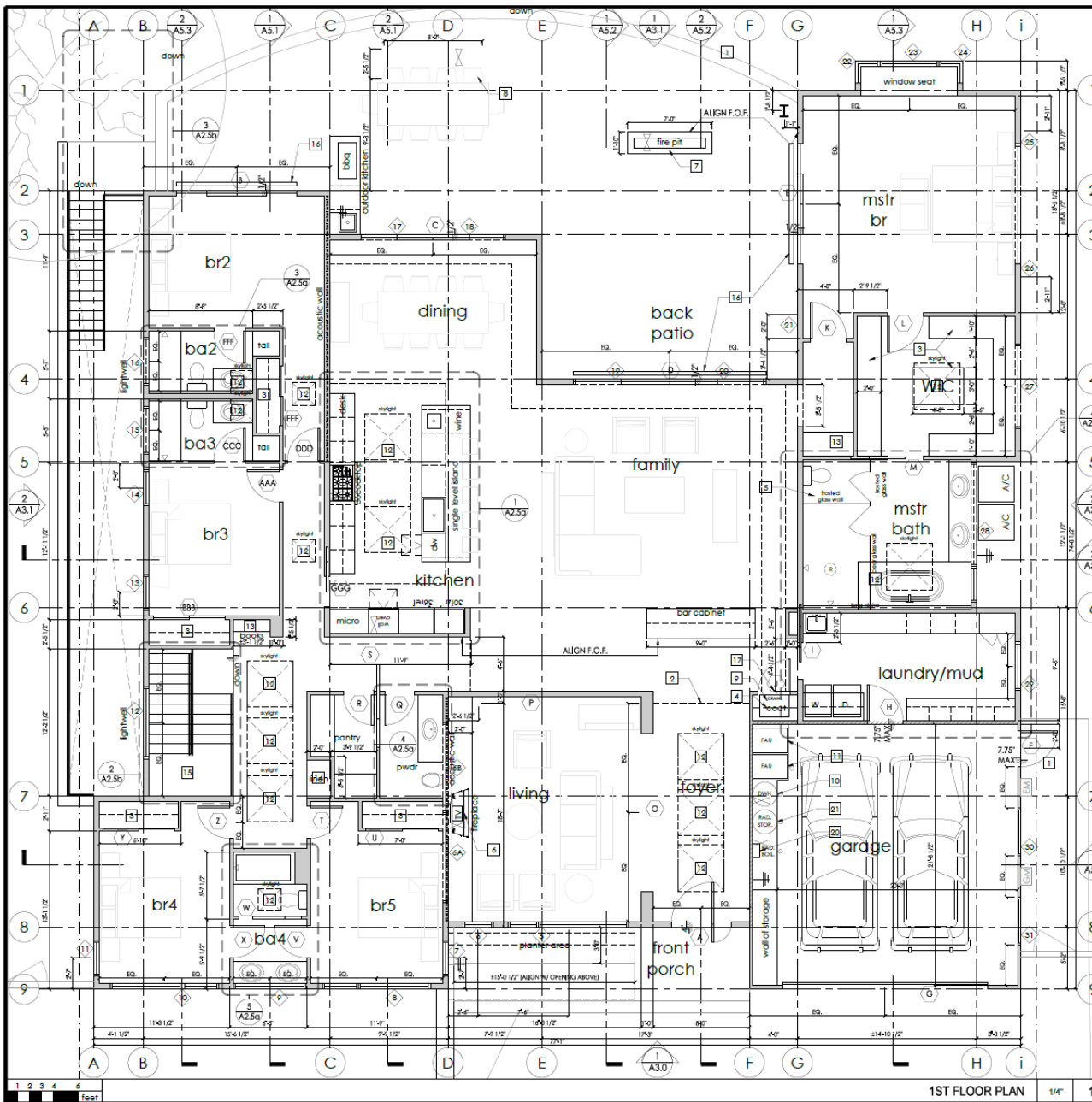


San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:



- = NUMBER TO KEY NOTE BELOW
- (N) CONCRETE STEP[S]-10" MIN. TREAD AND MAX. 7" RISE/HEIGHT
 - LINE OF BEAM, SOFFIT AND/OR CROWN MOLDING ABOVE, TYP. SEE ALSO REFLECTED CEILING PLAN
 - INDICATES PREFAB CLOSET SYSTEM [OWNER PROVIDE/CONTRACTOR INSTALL]
 - INDICATES ROD AND SHELF AT 24" O' A.F.F.-VERIFY HEIGHT WITH OWNER
 - (N) PREMANUFACTURED 72" DIRECT-VENT SEALED-COMBUSTION GAS FIREPLACE TO BE LISTED AND LABELED, TESTED BY AN APPROVED TESTING LABORATORY, AND INSTALLED IN ACCORDANCE WITH LISTING AND MANUF. INSTALLATION INSTRUCTIONS. FIREPLACE SHALL HAVE CLOSABLE METAL OR GLASS COVERING THE ENTIRE OPENING OF THE FIREBOX. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE WITH UL-127. FIREPLACE TO COMPLY WITH EPA PHASE II EMISSION LIMITS-MANUF. HEAT N GLO; STYLE: PRIM072; UL LISTING: AHS 221-30-2014-VERIFY FINAL SELECTION WITH OWNER PRIOR TO PLACING ORDER
 - HEAT N GLO PRIM048 FIREPLACE. SEE KEYNOTE 5 ABOVE FOR MORE INFO
 - SITE BUILT GAS FIRE PIT WITH LINEAR BURNER-INSTALL PER MANUF. INSTRUCTIONS
 - OUTDOOR KITCHEN-PROVIDE SINK STOPPER TO PREVENT STORM WATER FROM ENTERING SEWER SYSTEM
 - (N) 18" X 24" MIN. CRAWLSPACE ACCESS
 - (N) WATER HEATER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A4.0. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS-SEE DETAIL S/A8.2
 - (N) AIR HANDLER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT-PROVIDE 30" WIDE HIGH AND DEEP CLEAR WORKING SPACE PER CMC 305.0-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS
 - SKYLIGHT-SEE SCP AND WINDOW SCHEDULE FOR MORE INFORMATION-CONTRACTOR TO USE SHARP FRAMING MEMBERS TO ENSURE THAT SKYLIGHT SHAFT HAS NO JOGS OR ANGLES THAT ARE NOT SHOWN IN PLANS
 - CUSTOM CABINETRY
 - FULL HEIGHT LINEN CABINET WITH SHELVES, KRAFTMAID OR EQUAL
 - INSTALL MIN. 1/2" GYP. BD. ON WALLS, UNDER-STAIR SURFACE, AND ANY SOFFITS AT ENCLOSED ACCESSIBLE SPACE UNDER STAIRS PER CRC 302.7
 - ZURN 2880 OR EQ. 2-1/2" WIDE TRENCH DRAIN-SEE CIVIL PLANS FOR MORE INFO
 - RETURN AIR REGISTER ABOVE DOOR
 - LIGHTWELL TRENCH DRAIN AND SUMP PUMP-SEE CIVIL PLANS FOR MORE INFO
 - APPROXIMATE LOCATION OF SEWAGE EJECTOR-CONTRACTOR TO DETERMINE FINAL LOCATION IN FIELD
 - HYDRONIC RADIANT HEAT SYSTEM BOILER WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT-PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR
 - HYDRONIC RADIANT HEAT SYSTEM STORAGE TANK WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. TANK TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A4.0.10-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS-SEE DETAIL S/A8.2
- | area (sf) | Class Vapor Retarder | ratio | req'd vent area (sf) | 7x14 vents required @ 98 sf/ea |
|-----------|----------------------|------------|----------------------|--------------------------------|
| a | | b | c=a/b x 144 | d=c+0.8 |
| A1 | 2.925 | Yes 1/1500 | 280.80 | 3.0 |
- Notes: 1. SEE ELEVATIONS FOR VENT LOCATIONS - VENTS ARE NOT TO BE LOCATED IN SHEAR WALLS OR SIMPSON STRONG WALLS
2. OPENINGS FOR CRAWL SPACE VENTILATION SHALL BE LOCATED AS CLOSE TO CORNERS AS PRACTICAL TO PROVIDE CROSS VENTILATION
- NOTE:
1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
3. SEE 4/A0.1a FOR ELECTRICAL GENERAL NOTES
4. SEE 5/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES
- | KEYNOTE | DESCRIPTION |
|---|-------------|
| (N) WALL: EXTERIOR: 2x6 STUDS @16" O.C.; INTERIOR 2x4 STUDS @16" O.C. TYP. U.N.O.-SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR EXTERIOR WALL MATERIAL ASSEMBLIES. INSTALL 1 LAYER (MIN.) OF WEATHER RESISTIVE BARRIER (TYVEK HOUSE WRAP OR EQ.) OVER EXTERIOR WALLS SHEATHING PER CRC 703.2-INSTALL PER MANUF. INSTRUCTIONS. PROVIDE 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE @ INTERIOR PARTITIONS. PROVIDE CEMENT BOARD OR TILE BACKER BOARD AT SHOWER/TUB LOCATIONS. ALL WALLS TO RECEIVE (N) PAINT FINISH. ALL CEILINGS AT TUB/SHOWERS TO BE M.R. BOARD | |
| NEW WALL W/ 1 HOUR SEPARATION-5/8" TYPE 'X' GYP ON GARAGE SIDE FROM FOUNDATION TO ROOF SHEATHING NEW STAGGERED STUD ACOUSTICAL WALL PER DETAIL 9/A8.1 | |
| DNOTES (N) HOSE BIBB. SEE PLANS FOR NEW LOCATION - INSTALL HOSE BIBBS PER CPC WITH APPROVED ANTI-SIPHON DEVICE. | |
| (N) GAS COOK-REFER TO MANUF. SPECS FOR ELECTRICAL AND GAS REQUIREMENTS. PLUMBER TO VERIFY GAS PIPE DIAMETER NEEDED FOR APPLIANCE FROM GAS METER LOCATION | |
| DOOR KEY-SEE A4.0 FOR MORE INFORMATION | |
| WINDOW KEY-SEE A4.0 FOR MORE INFORMATION | |
| FINISH FLOOR ELEVATION CHANGE | |
- 1ST FLOOR PLAN 1/4" = 1'



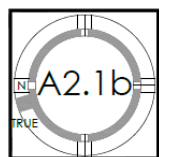
1000 S Winchester Blvd
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F : (408) 404 - 1144

ACHARYA-MAHADEVAN
RESIDENCE
NEW SINGLE FAMILY RESIDENCE
900 MENLO OAKS DRIVE
MENLO PARK (SMC), CA
NANDINI ACHARYA & ROHAN MAHADEVAN



PROJECT NO.	DATE	DESCRIPTION	DATE	DESCRIPTION
14020	06/21/2017	GRADING PERMITS SUBMITTAL	SR	
	07/25/2017	GRADING PERMITS RESUBMITTAL	SR	
	08/04/2017	BUILDING PERMITS SUBMITTAL	SR	
	12/22/2017	BUILDING PERMITS RESUBMITTAL	SR	
	03/08/2018	GRADING PERMITS RESUBMITTAL	SR	

1ST FLOOR PLAN



100 STUDIO S SQUARED ARCHITECTURE, INC.

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

A2.1b

Kielty Arborist Services LLC

Certified Arborist WE#0476A

P.O. Box 6187

San Mateo, CA 94403

650-515-9783

August 18, 2016, Revised June 6, 2017, Revised October 24, 2017, Revised January 3, 2018,
Revised February 13, 2018, Revised March 16, 2018

Rohan Mahadevan and Nandini Achary
900 Menlo Oaks
Menlo Park CA

Site:900 Menlo Oaks, Menlo Park, CA

Dear Rohan Mahadevan and Nandini Achary,

As requested on Monday, August 8, 2016, October 24, 2017, December 19, 2017, and February 19, 2018 I visited the above site to inspect and comment on the trees. A new home is proposed for this site and your concern for the future health and safety of the trees has prompted this visit.

Method:

All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on a map provided by you. The trees were then measured for diameter at 54 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. The trees condition rating is based on 50 percent vitality and 50 percent form, using the following scale.

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

The height of the trees was measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

900 Menlo Oaks /3/16/18

(2)

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
1S	Valley oak (<i>Quercus lobata</i>)	38est	45	40/50	Fair vigor, poor form, heavy lean south, large lateral leaders, supported by 2 wooden props, heavy decay in leader with prop, bee hive in decayed area, aesthetically pleasing, needs a great deal of maintenance to be able to retain tree.
2	Colorado blue spruce (<i>Picea pungens</i>)	6.1	55	30/10	Fair to poor vigor, good form.
3	Coast live oak (<i>Quercus agrifolia</i>)	6.4	65	20/12	Good vigor, fair form, young tree, volunteer.
4S/R	Incense cedar (<i>Calocedrus decurrens</i>)	28.7	45	70/30	Fair to poor vigor, poor form, leans towards building, suppressed by neighbor's redwoods, abundance of dead wood and dead limbs.
5S	Valley oak (<i>Quercus lobata</i>)	27.9	65	60/50	Good vigor, fair form, heavy to the south east, dead limbs on suppressed side of tree, oak bark canker, aesthetically pleasing, 10 feet from corner of the home.
6	Western red bud (<i>Cercis occidentalis</i>)	10@base	40	15/15	Poor vigor, poor form, suppressed, in decline.
7S	Coast live oak (<i>Quercus agrifolia</i>)	23.4	65	30/45	Fair vigor, fair form, codominant at 10 feet with good crotch formations, needs maintenance to be visually appealing.
8	Xylosma (<i>Xylosma spp.</i>)	4.8	50	12/12	Fair vigor, fair form, suppressed.
9	Holly (<i>Ilex aquifolium</i>)	10@base	40	20/15	Poor vigor, poor form, multi leader at base, suppressed, in decline.
10	Strawberry tree (<i>Arbutus unedo</i>)	5.8	50	12/10	Fair vigor, poor form, suppressed, heavy lean.
11	Coast live oak (<i>Quercus agrifolia</i>)	5.6	55	12/12	Fair vigor, poor form, suppressed by #13, on property line, codominant at 5 feet with poor crotch formation.

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

900 Menlo Oaks /3/16/18

(3)

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
12*S	Deodar cedar (<i>Cedrus deodara</i>)	18-18est	60	60/40	Fair vigor, poor to fair form, codominant at 2 feet with good crotch formation, leaders suppress each other, 8 feet from property line.
13	Toyon (<i>Heteromeles arbutifolia</i>)	6est	0	15/8	DEAD
14S	Coast live oak (<i>Quercus agrifolia</i>)	14.0	60	30/15	Fair vigor, poor form, codominant at 10 feet with included bark, on property line.
15S	Coast live oak (<i>Quercus agrifolia</i>)	12.2	60	15/15	Fair vigor, poor form, big sweep in trunk, heavy to the south east, aesthetically pleasing, on property line.
16	Bay (<i>Umbellularia californica</i>)	7.2	30	30/10	Nearly dead.
17	Olive (<i>Olea europaea</i>)	5.9	45	25/10	Fair vigor, poor form, tall for DBH, heavily suppressed, on property line.
18*S	Redwood (<i>Sequoia sempervirens</i>)	35est	70	100/40	Good vigor, fair form, in grove of 4 redwoods, 4 feet from property line.
19*S	Coast live oak (<i>Quercus agrifolia</i>)	12est	80	35/30	Good vigor, fair form, 10 feet from property line.
20	Catalina cherry (<i>Prunus ilicifolia</i>)	10est	50	30/20	Fair vigor, poor form, heavily suppressed, codominant at 8 feet.
21R	Tulip magnolia (<i>Magnolia grandiflora</i>)	9"x4	45	25/30	Poor vigor, fair to poor form, multi leader at base, improper cabling done in past is slightly girdling tree, in decline, drought stressed.
22R	Crape myrtle (<i>Lagerstroemia spp.</i>)	9.8	30	20/15	Poor vigor, poor form, split crotch failed tree, in decline.
23SR	Irish yew (<i>Taxus baccata</i>)	20.9	40	25/12	Poor vigor, poor form, in decline.

San Mateo County Planning Commission Meeting

Owner/Applicant: _____

Attachment: _____

File Numbers: _____

900 Menlo Oaks /3/16/18

(4)

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
24S	Coast live oak (<i>Quercus agrifolia</i>)	20.7	60	40/20	Good vigor, fair form, suppressed by redwoods heavy towards home, needs maintenance.
25R	Coast live oak (<i>Quercus agrifolia</i>)	6.9	45	30/10	Fair vigor, poor form, tall for DBH, suppressed.
26S	Redwood (<i>Sequoia sempervirens</i>)	52.4	70	100/35	Fair vigor, fair form, possible failure in past near tree, 3 feet from #27.
27S	Redwood (<i>Sequoia sempervirens</i>)	32.1	70	100/35	Fair vigor, fair form, possible failure in past near tree, 3 feet from #26.
28S	Coast live oak (<i>Quercus agrifolia</i>)	26.5	45	35/30	Fair vigor, poor form, heavy decay at base on south side, multi leader at 8 feet, tree heavy to the south, hazard.
29S	Coast live oak (<i>Quercus agrifolia</i>)	12.9	45	40/12	Fair vigor, poor form, tall for DBH, poor live crown ratio, top heavy.
30S	Coast live oak (<i>Quercus agrifolia</i>)	12.5	45	30/15	Fair vigor, poor form, codominant with poor crotch formation, included bark, less than 1 foot from an accessory structure.
31S	Coast live oak (<i>Quercus agrifolia</i>)	19.1	45	30/15	Fair vigor, fair form, suppressed, 1 foot from building, top heavy.
32S	Coast live oak (<i>Quercus agrifolia</i>)	19.2	45	30/20	Good vigor, poor form, leans to the north, history of limb loss, suppressed, skinned up, 1 foot from #33, shares root zone.
33S	Coast live oak (<i>Quercus agrifolia</i>)	19.7	50	35/25	Fair vigor, poor form, leans south, codominant at 12 feet, poor crotch, 1 foot from #32, shares root zone.
34	Privet (<i>Ligustrum japonicum</i>)	8.1	40	25/10	Poor vigor, poor form, suppressed, covered in ivy.
35	Tree of heaven (<i>Ailanthus altissima</i>)	8.9	45	25/20	Fair vigor, fair form, invasive species.
36S	Coast live oak (<i>Quercus agrifolia</i>)	16.2	60	35/20	Good vigor, fair form, slight lean south, codominant at 15 feet.

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

900 Menlo Oaks /3/16/18

(5)

Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
37	Catalina cherry (<i>Prunus ilicifolia</i>)	10.0	30	15/20	Poor vigor, poor form, nearly dead, if removed it improves #36.
38S	Coast live oak (<i>Quercus agrifolia</i>)	35.2	45	40/50	Fair vigor, poor form, leans south, decay at 2 feet on north side of trunk, codominant at 10 feet, heavy decay at 10 feet on south side of tree, history of limb loss, supported by wooden beam that is bending, good location, hazardous.
39*S	Coast live oak (<i>Quercus agrifolia</i>)	35est	65	40/40	Good vigor, good form, 10 feet from property line.
40*S	Coast live oak (<i>Quercus agrifolia</i>)	18est	55	35/30	Good vigor, fair form, decay at 10 feet, 5 feet from property line.
41	Valley oak (<i>Quercus lobata</i>)	5.5	80	20/12	Good vigor, good form, young tree, volunteer, suppressed by #1.
42	Coast live oak (<i>Quercus agrifolia</i>)	4.3	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
43	Coast live oak (<i>Quercus agrifolia</i>)	3.2	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
44	Coast live oak (<i>Quercus agrifolia</i>)	3.3	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
45	Coast live oak (<i>Quercus agrifolia</i>)	5.8	80	15/10	Good vigor, fair form, suppressed, young tree, on property line.
46	Coast live oak (<i>Quercus agrifolia</i>)	5.3	45	15/10	Fair vigor, poor form, suppressed, leans over home, young volunteer.
47*S	Coast live oak (<i>Quercus agrifolia</i>)	22.7	80	40/40	Good vigor, good form, 13 feet 7 inches from existing home, on neighbor's property.

*-Indicates neighbors tree

S- Indicates significant tree by San Mateo County ordinance

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

Summary:

The trees on site are a mix of imported and native trees. The trees are spread throughout the property in various locations. A high number of the trees are growing in suppressed conditions. Trees that grow in suppressed conditions develop poor forms, such as a heavy lean that can often create trees that are structurally unstable. The mature oaks on site are recommended to receive maintenance pruning every 3-5 years as they tend to develop large lateral leaders that can become heavy often to the point of failure. All recommended pruning shall be done by a Certified Arborist with knowledge in pruning mature oak trees. The majority of pruning cuts should consist of reduction cuts out on the ends of the limbs back to a lateral branch large enough to take on apical growth. These types of pruning cuts can reduce the risk of branch or leader failure.

The property has not been maintained for an unknown amount of time, and all imported trees are obviously struggling from lack of irrigation. All imported trees to be retained should receive supplemental irrigation as soon as possible. None of the native trees on site need supplemental irrigation unless their root zones are traumatized. The landscape design of this property should not plant high water use plants underneath the driplines of the oaks on site, as this can encourage oak root fungus growth. Plantings are recommended to stay at least 10 feet away from the large oak trees on site. Native plantings are encouraged. No heritage trees were located on site. All trees over 12 inches in diameter are considered a significant tree in San Mateo County and a permit is required for their removal.



Valley oak tree #1 is located in close proximity to the street. This tree has poor form consisting of a heavy lean to the south and decay on the main trunk. The tree is being supported by a wooden prop. Steel props are widely used in today's time for prop material over wood because of its strength and longevity. This is an indication of old work done to try and reduce the risk of a failure. The large lateral limb that is being supported by the wooden prop has heavy decay with a large bee hive in the decay pocket. This tree is aesthetically pleasing because of its poor form. This tree has a high risk of leader failure because of the decay and lean. A great deal of maintenance should go into this tree to lower its risk of failure. Cabling, a new steel prop and heavy pruning is recommended.

Showing valley oak #1 supported by wooden props

Blue spruce #2 and coast live oak #3 are both not of a protected size in the County of San Mateo. Coast live oak tree #3 is likely a volunteer that sprouted through means of natural acorn dispersal. This tree will grow into a nice tree and is to be retained as its location fits in with the design of the new home. Blue spruce #2 has some decline in its canopy, this is likely due to lack of irrigation and from growing in suppressed conditions. This tree does not fit into the natural oak landscape and should be removed.

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

Incense cedar tree #4 is a protected tree. This tree was given a poor condition rating of 45 because of its poor vigor, and poor form. The neighbor's redwood trees are heavily suppressing this tree and have caused the tree to lean towards the existing home. This tree is in decline and is considered hazardous because of its heavy lean towards the home. A large amount of dead wood and dead limbs were observed. The large amount of dead wood is from a fungal canker disease that causes dieback. This tree is not suitable for preservation as it will always be suppressed and the lean will not be able to be corrected through pruning. Removal is recommended as the tree is not expected to survive much longer due to the canker disease.



Showing valley oak tree #5

Valley oak tree #5 is a protected tree in fair condition. This tree is aesthetically pleasing and an asset to the home as the tree provides shade in the summer and solar heat in the winter. The tree is heavier towards the property as a result of being suppressed by the neighbor's redwood trees. The tree is located 10 feet from the corner of the existing home. This tree will require maintenance every 3 years in order to reduce heavy end weight of the limbs towards the home, also the tree would benefit from a general crown cleaning. This tree will need to be protected during all construction activities. The proposed basement for this site is outside of the calculated root zone(10 times diameter) of this tree, therefore no impacts are expected from the proposed basement to this tree. The first floor foundation for the proposed home encroaches 1 foot from where the existing foundation is located into the tree's root zone. All excavation for the foundation near this tree will need to be done by hand. The existing foundation likely acted as a root barrier for this tree. Roots underneath the home are expected to be minimal

to nonexistent as this is a space where roots are not expected to thrive. The site arborist will need to be on site to witness the excavation 1 foot from the existing home. All encountered roots measuring 2 inches in diameter or over will need to be documented. Excavation depth for the new home when near this tree should be reduced as much as possible. Impacts to this tree from the proposed plan are expected to be minor. Mitigations for the minor root loss will consist of irrigation as close as possible to where the cut is to take place. Irrigation shall take place by using a soaker hose. The soaker hose can be turned on for 4 hours every 2 weeks following the root cutting for the duration of 1 year. Seasonal rainfall may be sufficient during winter months. After one year irrigation shall be permanently suspended.

Western red bud tree #6 is in poor condition and recommended to be removed. The tree has likely declined as a result of growing in a heavily suppressed area. Light quality for this tree is extremely poor.

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

Coast live oak tree #7 is a protected tree in fair condition. This tree is in a good location far from proposed work. The tree looks over grown and messy in its current state. The tree would look visually appealing after a thorough pruning for structure and after a crown cleaning for dead wood and diseased wood. Also, the smaller non protected trees surrounding this tree (#8,9,10) should be removed in order to retain the oak as a focal point.

Coast live oak tree #11 is a small tree under the protected size and is likely a volunteer tree. This tree is proposed for removal as it is growing underneath the neighbor's cedar tree #12 and has no room for vertical growth.



Neighbor's cedar tree #12 is located at an estimated 8 feet from the property line. The proposed home is near the same location as the existing home. The proposed foundation near this tree will need to be dug by hand in order to expose roots that may have grown in this area. No roots over 2 inches in diameter are to be cut without the site arborist consent. Tree protection fencing for this tree should extend out from the property line as close to the proposed foundation as possible and to a width equal to the drip line of the tree. The site arborist must be on site to view digging by hand in this area in order to inspect, document and offer mitigation measures depending on the findings. Impacts to this tree are expected to be minor to nonexistent as the existing home in this location likely acted as a root barrier.

Redwood tree #18 is located 4 feet from the existing property line fence. This tree is the closest tree in a grove of 4 redwood trees of the same size and stature. These trees are in good condition. Any excavation within 30 feet from these trees will require the site arborist to be on site. This includes any driveway work including the possible removal of the driveway. All work within 30 feet of these trees must be inspected and documented by the site arborist. No roots should be cut in this area.

Trees #19 and #20 are located on the neighbor's property. These trees are in fair condition. At this time no impacts are expected to these trees.

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Tulip magnolia tree #21 is proposed for removal. This tree is a multi-leader tree at grade. The tree is in significant decline. The trees vigor and form is poor. The drought appears to have stressed the tree. No maintenance has been provided to this tree for an unknown length of time. Improper cabling has been installed on this tree and has caused some minor girdling. This tree is not a significant tree as designated by the County and no permit is required for removal. As of my last site visit I observed that this tree is nearly dead.

Showing tulip magnolia in decline



Crape myrtle tree #22 is proposed for removal. A past failure at the base of the tree has caused a large split in the trees crotch at 2feet. This tree is not suitable for preservation and should be removed regardless of construction. This tree is not a protected tree.

Irish yew tree #23 is proposed for removal. This tree is in obvious decline as no irrigation or maintenance has been applied for an unknown length of time. This tree is of a protected size in the county of San Mateo and will need a permit to be removed as it is designated a significant tree. The tree was given a condition rating of 40 making it a poor tree.

Showing Irish yew #23 in decline

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Coast live oak tree #24 is to be retained for this project. On Monday, February 19, 2018, I visited the above site in order to conduct an exploratory trench following the previous location of the proposed lightwell near oak tree #24. The trench was done in order to explore the actual extent of roots and to accurately determine if the proposed project will impact the health and stability of the tree. I was also asked to perform an exploratory trench at a second location where a reduced lightwell would be located. The exploratory trench started at a distance of 6 feet 8 inches from the corner of the existing home and went in a straight line moving closer and closer to the tree as this was the proposed lightwell location. The trench was completed to a depth of 2 feet as root growth generally takes place in the top 3 feet of soil with the majority of roots in the top 18 inches of soil. The trench was completed using an air spade so that the encountered roots remained damage free.

Surprisingly no roots were encountered until 2 feet from oak tree #24. When examining the buttress roots of the tree, the roots seemed to be running at nearly a 45 degree angle from the proposed light well or from the exploratory trench. To the left is a picture to help explain. The highlighted blue lines represent the trees buttress roots which all roots expand off of. No buttress roots were located directly in the direction of the tree's lean.

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The second photo to the left shows no significant sized roots in the trench leading up to the tree. The large exposed buttress roots when within 2 feet from oak tree #24 were measured using a Drescher Tree Caliper. The largest root measured at 8 inches in diameter, other smaller roots measuring, 7,4 and 2 inches were also measured. Impacts to the tree would be severe if these roots were cut as the roots would likely decay back to the tree trunk and make the tree unstable. Therefore, I did not continue the exploratory trench further past the tree as the past design would not be expected to work with the retention of this tree.



Showing roots that would need to be cut for old lightwell location

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Attachment: _____

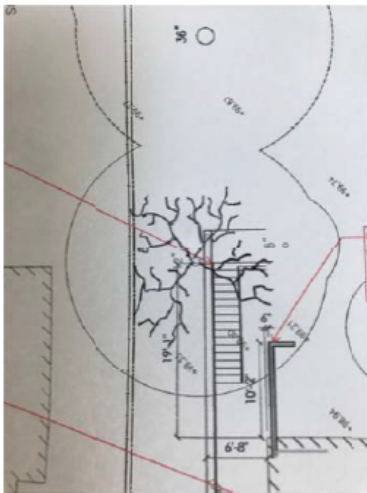
File Numbers: _____



In order to explore the option of a reduced light well a second trench was completed. This trench was to run off of the same exploratory trench leading up to the tree from the proposed design but to turn at a 90-degree angle at 10 feet 2 inches from the corner of the home. No roots measuring over 2 inches in diameter were encountered in this area. The trench stopped at small oak tree #46 (not protected).

Because only small roots were located in the optional reduced lightwell location at 10 feet 2 inches from the corner of the home, impacts at this distance would be expected to be minor. Also, the location of the buttress roots as well as their growth direction show a majority of the root growth to be away from the optional reduced lightwell.

Showing small roots found at 10 feet 2 inches (Optional reduced light well)



Because only small roots were found at the reduce lightwell location plans have now been changed to keep the tree as a reduced light well has been designed. The reduced lightwell can be seen on all of the revised plans. With continued tree maintenance consisting of reduction cuts every 2 years for oak tree #24 and the construction of the proposed reduced lightwell, the tree would be expected to thrive and survive for many years to come. The diagram to the left shows the root zone of tree #24. Roots likely expand further out than shown but are very small fibrous roots not critical for tree stability. The Project Arborist must be onsite to witness all excavation for the new proposed lightwell location. All encountered roots must be cleanly cut and documented.

Coast live oak tree #25 is a small tree with a diameter of 6.9 inches. This tree is likely a volunteer grown by means of natural seed dispersal. This tree should be removed regardless of construction as it is heavily suppressed. Oak tree #25 is not a protected sized tree.

Redwood trees #26 and #27 are both in fair condition. A redwood tree in the past has been removed near these trees. The removed tree is possibly a failed tree but unknown at this time. These trees will need to be protected during construction. Tree protection fencing for these trees will need be as large as possible. It is recommended that a minimum distance of 25 feet from the

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trees trunks remains protected and unchanged. During my recent site visits I noticed the canopy of the redwood trees to be in slight decline. Redwood trees require supplemental irrigation to maintain a healthy crown, therefore irrigation should be provided as soon as possible by means of a soaker hose. Irrigation should be place as far from the oak trees as possible.



Coast live oak tree #28 has a diameter of 26.5 inches. This tree has a heavy amount of decay at its base on the south side of the tree. The tree is also heavy to the south. The large amount of decay associated with this tree gives the tree a high risk rating for tree failure. In order to reduce risk associated with the decay, it is recommended to prune this tree every 3-5 years using only approved reduction cuts. The tree should be maintained at its current size. In the future it is recommended to explore the extent of decay at the base of this tree further. A patio is proposed off of the back of the home. The patio is located at a distance of 24 feet from this tree. This is a sufficient distance and no impacts are expected as the excavation is outside of the trees root zone.

Showing heavy decay at base of tree #28



Coast live oak trees #29-31 are all located in close proximity to an accessory structure. All 3 of these trees are growing in suppressed conditions. The suppressed conditions have made for these 3 trees to be top heavy as they are stretching towards sunlight. If these trees are to be retained the accessory structure must be removed by hand as these trees would likely be impacted by heavy machinery to remove the structure.

Showing trees #29-31

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Coast live oak trees #32 and #33 are located right next to each other and could be considered one tree as they share the same root zone. Both of these trees suppress each other and as a result they lean away from each other in opposite directions. If these trees are to be retained it is recommended that they be cabled together in order to offer extra support. Also, a maintenance plan of pruning to relieve heavy end weight every 3-5 years is recommended. This would increase the trees longevity.

Showing oak trees #32 and #33

Coast live oak tree #36 should be retained as this tree is in fair condition and in a good location for preservation during construction. Tree #35 is a non-protected tree and an invasive species. This tree should be removed. With tree #35 removed, coast live oak tree #36 would benefit as it would relieve suppressed conditions.



Coast live oak tree #38 is a large protected tree with a diameter of 35.2 inches. This tree has a heavy lean to the south. Decay was observed on the north side of the tree at 2 feet. The tree is codominant at 10 feet with heavy decay directly below the codominant junction. The tree has lost large limbs in the past. A large wooden support beam is supporting a large lateral limb. The wooden support beam is bending in its current state. The heavy decay associated with this tree in combination with the tree heavy to the south makes the tree hazardous. Mitigations for this tree could be put in place to lower its risk of failure. Pruning and cabling and the installation of a steel prop would improve its risk rating from high to moderate. If the owner does not except a moderate risk rating the tree should be removed. The tree is in a good location on the property and offers a good amount of screening.

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Showing tree #38 with bending wooden support
900 Menlo Oaks /3/16/18 (15)



Valley oak tree #41 is a small tree in good condition. This tree is to be added to the list of trees to be saved and protected as a condition of approval as it is in a good location. Tree protection fencing should be installed for this tree as it is to be retained. Fencing should be installed at a minimum distance of 8 feet from the tree trunk.

Showing valley oak tree #41



Coast live oak trees #42-45 are small oak trees located at the property line on the south side of the property (may be neighbor's trees, not identified on survey). These trees do offer a good amount of screening for the property. The neighbor's large deodar cedar tree #12 suppresses these oak trees. Because these oak trees are only a few feet away from each other and are heavily suppressed by the cedar tree, future growth is expected to create poor form as the trees will lean away from the neighbor's cedar tree and from one another. In order to maintain the screen and retain the trees there are a few different options. First option would be to remove 2 of the 4 trees to give more room for vertical growth to the remaining two trees. The remaining two trees will likely need to be pruned in the future as they will likely grow on a lean as a result of suppressed conditions. Second option is to treat these four trees as a hedge and provide monthly maintenance to control their size and create a dense hedge. At this time all four trees are to be retained and added to the list of trees to be retained as a condition of approval.

are to be retained as a

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Coast live oak tree #46 is in poor condition. This tree is heavily suppressed and leans over the existing home. This tree will be removed as it is in the way of the proposed construction. This tree is under the significant size for trees in San Mateo County and no permit is required for removal.

Showing small oak tree #46 leaning over home



Coast live oak tree #47 is a significant tree located on the neighbor's property to the south. The tree is 13 feet 7 inches from the existing home foundation. The existing home likely acted as a root barrier for this tree. Tree protection fencing placed at the dripline of this tree on the property side may reduce access to the rear yard. If access is needed and fencing needs to be reduced, a landscape barrier shall then be installed. Landscape barriers consist of a 6inch thick layer of mulch covered by plywood. This will protected the tree's root zone from soil compaction where tree protection fencing is reduced. Impacts to this tree are expected to be nonexistent. The following tree protection plan will help ensure the safety and health of the retained trees on site.

Showing tree #47

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Tree Protection Plan:

Tree protection fencing

Tree protection zones should be established and maintained throughout the entire length of the project. Fencing for protection zones should be 6-foot-tall metal chain link supported by 2-inch diameter poles pounded into the ground. The location for protective fencing should be as close to the dripline as possible still allowing room for construction to safely continue. No equipment or materials should be stored or cleaned inside protection zones. Protected trees located on the neighbors' properties should be protected by fencing extending out from the property line and out to the set back of the property. The existing driveway is recommended to be retained during the construction of the home as it is protecting the root zones of the trees in close proximity.

Landscape Buffer

Where tree protection does not cover the entire root zone of the trees a landscape buffer consisting of wood chips spread to a depth of six inches will be placed where foot traffic is expected to be heavy. The landscape buffer will help to reduce compaction to the unprotected root zone.

Root Cutting

Any roots to be cut should be monitored and documented. Large roots or large masses of roots to be cut should be inspected by the site arborist. The site arborist may recommend irrigation or fertilizing at that time. Cut all roots clean with a saw or loppers. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist. All roots encountered measuring 2 inches in diameter or over shall be exposed and remain damage free for the site arborist to view. Mitigation measures will be applied at this time.

Trenching and Excavation

Trenching for irrigation, electrical, drainage or any other reason, should be hand dug when beneath the dripline of desired trees. Hand digging and careful placement of pipes below or beside protected roots will dramatically reduce root loss, thus reducing trauma to desired trees. Trenches should be back filled as soon as possible using native materials and compacted to near original levels. Trenches to be left open with exposed roots shall be covered with burlap and kept moist. Plywood laid over the trench will help to protect roots below.

Irrigation

Normal irrigation should be maintained throughout the entire length of the project. All of the imported trees will require normal irrigation. This includes the redwood tree. Irrigation should consist of surface flooding, with enough water to wet the entire root zone. If the root zone is traumatized this type of irrigation should be carried out two times per month during the warm dry season.

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Inspections

The site will be inspected after the tree protection measures are installed and before the start of construction. Other inspections will be carried out on an as needed basis. Any time work is within 20 feet of the protected tree on site, the site arborist must be notified 48 hours in advance so that a site visit can be scheduled during the proposed work.

Replacement trees:

The County Of San Mateo has a 1:1 replacement standard using a minimum of a 15 gallon sized tree. This means that the county would require two 15 gallon sized tree as a replacement for trees #23 and #4 to be removed. Originally as conditions of approval the county also wanted the owner to save non-protected oak trees #3 and #11. On the next page are areas where new trees can be planted on site.



Red circled areas are good locations for replacement trees. Trees #3, #11 and #41-45 circled in green are to be preserved and protected as a condition of approval.

This information should be kept on site at all times. The information included in this report is believed to be true and based on sound arboricultural principles and practices.

Sincerely,

Kevin R. Kielty
Certified Arborist WE#0476A

David P. Beckham
Certified Arborist WE#10724A

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:



Roots extend toward left yard fence and toward location of back patio

San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:



Roots extend toward location of back patio

Toward corner of house

San Mateo County Planning Commission Meeting

Owner/Applicant: _____

Attachment: _____

File Numbers: _____



San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:



San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers:

Attachment F

COUNTY OF SAN MATEO PLANNING AND BUILDING DEPARTMENT

DATE: February 14, 2018

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of an appeal of the Community Development Director's decision to approve a Grading Permit, pursuant to Section 9280 of the San Mateo Ordinance Code, to allow 590 cubic yards (c.y.) of grading to construct a new residence and basement. The property is located at 900 Menlo Oaks Drive in the unincorporated Menlo Oaks area of San Mateo County.

County File Number: PLN 2017-00262 (Mahadevan)

PROPOSAL

The appellant has appealed staff's decision to approve a Grading Permit to allow 590 c.y. of grading, composed of 540 c.y. of cut and 50 c.y. of fill, in association with the excavation and construction of a 990 sq. ft. subterranean basement and a new 5,043 sq. ft. single-family residence. The grading and construction of the new residence will involve the removal of three significant trees including: one 20.9" diameter at breast height (dbh) Irish yew located mid-parcel, one 20.7" dbh coast live oak located mid-parcel in the left side yard, one 28.7" dbh incense cedar located in the front left yard of the subject property, and the removal of thirteen other non-significant sized trees of varying species located throughout the parcel. The appellant states that: (1) the noticing for tree removal was inadequate, (2) the house can be redesigned or moved to save the 20.7" dbh coast live oak tree and a smaller 6.9" dbh coast live oak tree proposed for removal, (3) too many trees in general are proposed for removal, and (4) the tree replacement standards for this project are inadequate. The appellant states that replacement trees should be of sufficient size and number to replenish the tree canopy within 10-years' time.

RECOMMENDATION

That the Planning Commission deny the appeal, and uphold the Community Development Director's decision to approve the Grading Permit, County File Number PLN 2017-00262, by making the findings for approval and imposing the conditions of approval included in Attachment A of this staff report.

BACKGROUND

Report Prepared By: Laura Richstone, Project Planner, Telephone 650/363-1829

Attachment F

Appellant: John Danforth

Applicant: Eugene Sakai and Sean Rinde for Studio S Squared Architecture

Owner: Rohan Mahadevan

Location: 900 Menlo Oaks Drive, Menlo Oaks

APN: 062-160-090

Parcel Size: 31,193 square feet

Existing Zoning: R-1/S-100 (Single-Family Residential/Menlo Oaks Combining District)

General Plan Designation: Low Density Residential Urban

Sphere-of-Influence: Menlo Park

Existing Land Use: Single-Family Residential

Water Supply: California Water Service – Bear Gulch

Sewage Disposal: West Bay Sanitary District

Flood Zone: Zone “X” (Area of Minimal Flooding); Panel No. 06081C0306E, effective date October 16, 2012

Environmental Evaluation: This project is exempt from the California Environmental Quality Act (CEQA), pursuant to CEQA Guidelines, Section 15303, Class 3, consisting of the construction and location of limited numbers of new, small facilities or structures; in this case, a single-family residence in a residential zone.

Setting: The subject parcel is located in the unincorporated residential community of Menlo Oaks. The subject parcel is relatively flat, approximately 100 feet wide, heavily forested, and developed with an existing single-family residence. A total of 40 trees of varying species consisting of 23 significant-sized trees and 17 non-significant sized trees are located throughout the 31,193 sq. ft. parcel. Adjacent parcels are similarly forested and developed with single-family residences.

Chronology:

<u>Date</u>	<u>Action</u>
August 21, 2017	- Application submitted for 590 c.y. of grading and the removal of 3 significant and 13 non-significant sized trees to construct a new single-family residence and subterranean basement.
September 29, 2017	- Application is deemed complete.

Attachment F

- October 2, 20107 - Public notice sent out. Public comment period opens.
- October 18, 2017 - Public comment period closed. Seventeen comments were received by Planning Staff.
- October 18, 2017 - Planning Staff requests a revised arborist report to address issues raised during the public comment period.
- October 25, 2017 - Applicant submits revised arborist report dated October 24, 2017.
- November 10, 2017 - Project approved by the Community Development Director. Decision letter sent to the applicant and all interested parties who had comments on the project.
- November 27, 2017 - Appeal filed by John Danforth. Subsequently, the applicant entered into discussions with the appellant regarding tree replacement.
- January 24, 2018 - Planning Commission hearing.

DISCUSSION

A. KEY ISSUES

1. Appellant's Basis for Appeal

The appellant submitted an appeal letter in opposition to the Community Development Director's decision to approve the Grading Permit, PLN 2017-00262. The appellant disagrees with the decision to allow the grading activities and associated removal of three significant and 13 non-significant sized trees based on the following concerns. The key points to the appellant's appeal are outlined below followed by staff's response.

a. Inadequate Notice of Tree Removal

The appellant contends that the applicant should be required to obtain a Tree Removal Permit for this project and states that applications for Grading Permits should not eliminate or reduce the public noticing requirements found in the Significant Tree Ordinance. Furthermore, the appellant states that the noticing regarding the trees proposed for removal was inadequate.

Staff Response:

When Tree Removal and Grading Permits are Required

Attachment F

When a request for a Grading Permit includes significant tree removal activities, the Planning and Building Department evaluates the proposed tree removal as part of the Grading Permit. A separate Tree Removal Permit is not required. This practice is authorized by Section 12,020.1(e), *Exemptions*, of the San Mateo County Significant Tree Ordinance, which states that *...No permits shall be required under this Part [the Significant Tree Ordinance of San Mateo County] in the following circumstances: Tree cutting which has been authorized by the Planning Commission, Design Review Committee, or Community Development Director as part of a permit approval process in which the provisions of the Part have been considered and applied.*

Grading Permits are required when a licensed civil engineer estimates that 250 c.y. or more of cut and fill, combined, is expected to accommodate a proposed project. The current project, proposes a total 590 c.y. of grading, and thus requires a Grading Permit. Through its review and approval of the required Grading Permit, the Planning and Building Department has considered and applied the provisions of the Significant Tree Ordinance. Thus, in accordance with Section 12,020.1, the proposed project does not require a separate Tree Removal Permit. A Tree Removal Permit would only be required if the proposed project did not need a Grading Permit (for example, if the project required less than 250 c.y. of grading).

In cases such as these, where a Grading Permit is required rather than a Tree Removal Permit, the Planning and Building Department provides the public notice required pursuant to the Grading and Land Clearing Ordinance. The differences in notice requirements are detailed below.

Noticing Required for Tree Removal Permits

Per Section 12,021.2 (*Posting Notice of Application*) of the Significant Tree Ordinance, public noticing for a Tree Removal Permit shall consist of a posted *notice of application... on each tree for which a permit is required and [in a] conspicuous location clearly visible to the public.* In addition, Section 12,021.2 states that the posted tree removal application notice must *indicate the date, [provide] a brief description of the [trees to be removed], identify the subject property, [identify] the address to which comments may be directed and from which further information may be obtained, and [provide] the final date of receipt for comments.* As a courtesy, the County also mails a notice of tree removal application to all property owners within a 100-foot radius of the project site. This courtesy notice to neighbors is not required by the Significant Tree Ordinance.

Attachment F

Noticing Required for Grading Permits

Under the Land Clearing and Grading Ordinance (Grading Ordinance), public noticing requirements for a Grading Permit must include the same information as that required for a Tree Removal Permit notice (e.g., description, project location, planner contact information, etc.). Section 9289 of the Grading Ordinance establishes the following noticing requirements: *Ten (10) days prior to the action by the Planning Director public noticing for Grading Permits consists of a mailed notice to all property owners within three hundred (300) feet of the exterior limits of the property for which the application is proposed and the date on or after which the application will be acted upon.* The notice also includes a project description that identifies the amount of grading proposed and any related significant tree removal activities. Unlike the Significant Tree Ordinance, the Grading Ordinance does not require that a poster be placed on the site. As noted above, the Grading Ordinance requires a mailed notice to property owners in a 300-foot radius, while the Significant Tree Ordinance has no such requirement (although County practice is to provide a courtesy notice within a 100-foot radius).

Public Notice Sent for this Application

Per the Grading Ordinance, the public notice for this project was mailed to all homeowners within 300 feet of the subject parcel, as well as to the Menlo Oaks Tree Advocacy (MOTA) and the Menlo Oaks District Association (MODA) on October 2, 2017. Following the public noticing, MODA and MOTA requested and received the arborist report (dated June 6, 2017) that identified each tree proposed for removal in addition to the required mailed public notice of grading activities. The mailed notice (Attachment F) specified the proposed grading quantities, identified the significant trees to be removed by size and species, provided the assigned planner's contact information, and prompted any member of the public to contact the planner if they had any questions or concerns about the proposed grading and tree removal activities.

During the comment period, the Planning Department collected all comments received, answered clarifying questions about the project, and provided copies of the arborist report and tree protection plan upon request to interested members of the public. All comments were formally summarized and addressed in the Community Development Director's decision letter, dated November 10, 2017 (Attachment G).

Additional Noticing Requested

The different noticing requirements for grading and tree removal permits, and the appellant's desire to apply both noticing requirements

in instances where grading will result in tree removal, was discussed at the January 10, 2018 Planning Commission meeting. During that discussion, the Community Development Director identified that updates to the tree removal regulations currently underway will provide an opportunity to clarify noticing requirements. In the meantime, the Community Development Director agreed to require on-site posting of tree removal requests associated with grading permit applications.

The Planning and Building Department's general practice is to not change the regulations that apply to a project after a permit application has been submitted. Nevertheless, following the January 10, 2018 Planning Commission meeting, staff suggested to the applicant that he voluntarily post a notice on-site identifying the proposed tree removals. As of the writing of this report, a tree removal notice has been posted on the project site and the significant trees proposed for removal have been wrapped with caution tape to increase their visibility.

b. Objection to the Removal of Oak Trees #24 and #25 Due to Tree Canopy Impacts

The appellant objects to the total number of significant and non-significant trees proposed for removal. Specifically, the appellant objects to the proposed removal of the 20.7" dbh significant oak tree (tree #24 shown on the Tree Protection Plan) and the removal of the 6.9" dbh non-significant oak tree (tree #25). The appellant states that these oak trees are critical to the tree canopy in the immediate area due to: (1) the large number of non-significant trees proposed for removal, (2) oak tree #25's potential to grow into a mature oak tree, and (3) due to the large number of significant trees removed throughout the Menlo Oaks neighborhood to accommodate various construction projects.

Staff Response:

Significant Tree Ordinance Criteria

Section 12,012 of the Significant Tree Ordinance defines a significant tree as any live wood plant with a single stem or trunk with a dbh of 12" or larger. All trees meeting this size threshold are protected and require a discretionary permit for removal. For the Menlo Oaks Combining District (R-1/S-100), trees that fall under the 12" dbh size threshold are not protected, do not require a permit to be removed, and can be removed by right.

Removal of Multiple Oaks

In addition to the removal of three significant trees, the original project application also included the removal of 13 non-significant trees of various species located throughout the parcel. Though these smaller non-significant sized trees are not protected by the Significant Tree Ordinance, in response to public comments, the County required as a condition of permit approval in the decision letter (dated November 10, 2017), that the applicant preserve two non-significant sized oak trees (#3 & #11) originally proposed for removal (see Condition of Approval No. 12). The Planning Department determined that non-significant oak tree #25 could not be preserved because it is within the footprint of the proposed development. The Planning Department further determined that significant oak tree #24 could not be saved due its location. Oak tree #25 is located immediately adjacent to the proposed light well for the basement, in an area of high disturbance, and where severe root loss and damage from grading and construction activities is expected (see Section A.1.c below for further discussion).

Removal of Other Trees within the Menlo Oaks Neighborhood

Though other recently approved projects within the Menlo Oaks neighborhood may have necessitated the removal of trees, these projects are subject to the rules and regulations contained within the County's Significant Tree Ordinance. If these projects involved the removal of significant sized trees, as defined by the ordinance, they would have been required to obtain a discretionary permit from the County. Prior to approval, any such permits would have required public notice, public comment, and County review an analysis. All such permits would be subject to appeal.

Tree Canopy Concerns

In response to comments received during the comment period, Planning Staff requested that the applicant provide an updated arborist report to address the comments. This report, prepared by Kielty Arborist Services LLC, was received by the Planning Department on October 25, 2017. The report noted that oak trees #24 and #25 are not visible from the street and that their removal and subsequent reduction in tree canopy would only be noticeable to immediately adjacent neighbors. In response to this appeal, a tree canopy report prepared by Kielty Arborist Services on December 15, 2017 (see Attachment J) estimated that all significant trees located on the subject site provided 13,896.5 sq. ft. of tree canopy coverage. The report did not assess the canopy coverage provided by the non-significant trees located on the parcel. The removal of significant trees #21, #23, and #24 would constitute a 1,134.3 sq. ft. (or 8%) loss of

Attachment F

significant tree canopy provided by significant trees. The removal of significant oak tree #24 would have a low impact on the tree canopy of the site, as it provides 314.2 sq. ft. (or 2.26%) of the total significant tree canopy. While the removal of these three significant trees would reduce the overall tree canopy of the 31,000 sq. ft. parcel, replacement trees would be required per County regulations (see Section 1.e below for further discussion) to compensate over time for the canopy reduction.

c. Danger to the Proposed Structure

The appellant states that the proposed residence should be redesigned to save oak trees #24 and #25, contending that if the proposed residence was redesigned, the trees would not pose a danger to the structure. The appellant also notes that houses in the Menlo Oaks area are regularly built near existing trees, and that there is no reason why this project cannot be built near these tree without removing them.

Staff Response:

Oak Tree #25

The applicant is proposing to remove non-significant oak tree #25 because it is within the development footprint of the proposed back patio, and because the site arborist recommended its removal. The arborist report dated June 6, 2017, and a revised arborist report dated October 24, 2017, recommended that non-significant oak tree #25 should be removed regardless of if a new house it built or not because the tree is heavily suppressed by adjacent redwood trees and will continue to grow at a lean toward the location of the existing and proposed home. Staff preformed a site visit on December 8, 2017 and noted that coast live oak tree #25 is growing under the canopy of the larger coast live oak tree #24 and is leaning approximately 15 degrees toward the location of the existing and proposed residence (see Attachment K). Due to the non-significant status of oak tree #25, which means that County approval is not required for its removal, as well as the lean of the tree and the recommendation of the site arborist, staff supports the applicant's proposal to remove this tree.

Oak Tree #24

In response to comments received during the comment period, staff requested a revised arborist report that assessed whether significant oak tree #24 could be preserved and what risks (if any) were associated with preserving the tree. As noted in the revised arborist report dated October 24, 2017 (Attachment I), oak tree #24 is suppressed by adjacent redwood trees #26 and #27 and as a result is

growing at a lean toward the existing house. The report concluded that there is no way to correct the lean of oak tree #24 without removing redwood trees #26 and #27. The report states that if oak tree #24 were to be retained it would need to be pruned yearly to provide a 6-foot vertical fire clearance and to reduce the heavy end weight associated with the tree's lean.

The report also noted that the location of the proposed light well would be immediately adjacent to the trunk of significant oak tree #24 and that if the tree was retained it would experience severe root loss well beyond the maximum advisable root loss of 25% (arborist ANSI Industry Standards). The report states that the anticipated root loss would affect the tree's buttress roots, would cause the tree to become unstable, and have a higher risk of failure. The arborist concluded that the only way to preserve significant oak tree #24 is to redesign the proposed residence and to ensure no excavation would occur within 15 feet of significant tree #24.

d. The House can be Repositioned to Save the Oak Trees

The appellant states that the proposed house can be moved back into the lot to accommodate both the planned construction and the protection and preservation of oak trees #24 and #25.

Staff Response:

Locate the Structure Closer to the Front Property Line

As proposed, the project would retain the existing driveway, the 89'7" front yard setback of the existing residence, and place the proposed new residence in roughly the same location as the existing residence. Review of the plans submitted to the Planning Department on September 28, 2017, reveal that the placement of the proposed residence is constrained due to the location of the existing U-shaped driveway and the location of several existing significant oak and redwood trees in the rear and front yards of the project parcel. Shifting the proposed structure closer to the front property line to provide at 15-foot buffer zone around significant oak tree #24 would likely require reconfiguration of the existing driveway. Reconfiguring the driveway would impact the 27.9" dbh significant valley oak tree #5 (which is located 10 feet from the corner of the existing residence), three significant neighboring redwood trees located near the front left property line, and may impact the 23.4" dbh significant coast live oak tree #7 located in the middle of the U-shaped driveway.

Locate the Structure Deeper into the Parcel

The rear half of the parcel is heavily wooded with significant oak and redwood trees. The location and size of these trees limit where the proposed residence can be placed. Locating the proposed structure deeper into the lot would impact significant redwood tree #26 (52.4" dbh), significant redwood tree #27 (32.1" dbh), and significant coast live oak tree #28 (26.5" dbh). Measured from the edge of the light well, as currently proposed, the proposed structure will be located 20 feet from the trunk of redwood tree #26 and 25 feet from the trunk of redwood tree #27. Measured from the edge of the back patio, the proposed structure will be located approximately 22 feet from the trunk of oak tree #28. Locating the proposed residence closer to the trees in the rear yard may cause the structure to encroach into the driplines and root zones of the redwood and oak trees. While the arborist did not assess what the potential impacts to trees #26, #27, and #28 would be if the house was moved further back into the lot, the arborist did recommend that a minimum distance of 25 feet from the trunks of the redwood trees remain protected and unchanged. Moving the proposed house closer to the redwood and oak trees would encroach into that 25-foot buffer zone and may impact the stability of the redwood trees due to their relatively shallow root systems.

The applicant states that the design of the proposed structure and heavily wooded nature of the lot constrains where the proposed house can be placed. The proposed residence has been designed to reduce impacts to existing trees on the lot and save as many significant trees as possible while still allowing the principally permitted land use of a single-family residence. The location of the existing trees in relation to the proposed new residence, and the heavily wooded nature of the lot, constrains where a new residence can be located. Locating the new structure in roughly the same footprint of the existing residence avoids impacts to other existing significant trees located on the parcel.

e. Tree Replacement is Inadequate

The appellant states that more replacement trees should be required as a condition of approval and that the replanting requirement of three 15-gallon size oak trees is insufficient. Specifically, the appellant contends that tree replantings should be of a specific size and quantity to sufficiently replenish the tree canopy in 10-years' time. The appellant states that Palo Alto and other local jurisdictions utilize a canopy-based tree replacement standard and that the County should use the canopy-based standard for this project and all tree removal projects in the future.

Staff Response:

Tree Replacement Ratios Required by the Significant Tree Ordinance

Section 12,024(a) of the Significant Tree Ordinance states that *outside of the Residential Hillside/Design Review District (RH/DR), replacement of trees removed shall be with plantings of trees acceptable to the Community Development Director.* The Significant Tree Ordinance is not specific on required tree replanting ratios or appropriate tree species for parcels located outside of the RH/DR Zoning District. Historically, the Planning Department has referred to the Significant Tree Removal Application form as a guideline for these standards. Per the Significant Tree Removal Application form, Bayside Non-Design Review Districts require a 1:1 replacement ratio with a minimum 15-gallon size tree unless otherwise adjusted by the Community Development Director. The application form further states that any native tree species removed must be replaced with a native tree species.

The subject Grading Permit, which includes the removal of three significant trees (one non-native Irish yew tree, one native coast live oak tree, and one native incense cedar tree) applied the provisions of the Significant Tree Removal Ordinance and the Significant Tree Removal Application form listed above. Under these size and replanting ratios, the applicant is required to replant two 15-gallon trees of any native species and one 15-gallon tree of any native or exotic species. The approved Grading Permit included a condition requiring the replanting of three 15-gallon native oak tree species as replacement for the removal of the three significant trees. Condition of Approval No. 19 was also included in the initial Grading Permit approval. This condition of approval required that the location and placement of the required tree replantings be determined and overseen by the site arborist to ensure that the replacement trees are planted in an area that is best suited for their long term viability. Per this condition of approval, a signed and dated letter from the site arborist is required prior to the building permit final inspection that verifies that the arborist selected an appropriate location for the replacement trees and supervised their replanting.

Tree Replacement in Other Jurisdictions

Other jurisdictions take a variety of approaches to tree regulation and management, including alternative tree replacement requirements that account for tree canopy or other factors. Staff is studying these alternatives in order to inform the tree regulation update currently underway.

In the meantime, the existing Significant Tree Ordinance remains the applicable standard of review. As described above, the 1:1 replacement ratio using three 15-gallon size replacement trees satisfies these standards. With regard to the tree canopy standard suggested by the appellant, a report prepared by the site arborist on December 15, 2017, estimated that ten 24-inch box trees would need to be planted to replace the tree canopy lost within 10-years' time.

2. Project Conformance with County Regulations

a. Conformance with the General Plan

San Mateo County General Plan Policies 2.17 (*Regulate Development to Minimize Soil Erosion and Sedimentation*) and 2.23 (*Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion*) require the regulation of excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation to protect and enhance natural plant communities. The project seeks to reduce impacts to as many mature oak and redwood trees on the lot as possible. The proposed residence has been placed and designed to preserve numerous redwood and oak trees in the rear and front yards of the property. The project seeks to protect and minimize impacts to protected trees through the proposed tree protection plan, oversight from the site arborist, and tree protection best practices. The project also minimizes soil erosion, both during construction and post-construction, through the proposed Erosion and Sediment Control Plan and Drainage Plan. The project plans have been reviewed and approved by the Geotechnical Section and the Department of Public Works. Comments and recommendations of these reviewing agencies have been addressed by the applicant or included as conditions of approval to ensure that the project will comply with all policies and will prevent soil erosion. Additionally, adherence to the standard "Best Practices" and site-specific recommendations and conditions from the aforementioned agencies, proposed grading activities will minimize soil erosion.

Though Grading Permits do not require a separate Tree Removal Permit to remove significant trees (per Section 12,020.1 of the Significant Tree Ordinance), the removal of such trees is an evaluative process which seeks to ensure that proposed tree removal is minimized and necessary to utilize a property in its intended manner. The trees proposed for removal are either located within the footprint of the proposed development, immediately adjacent to the proposed development, in decline, or are suppressed by neighboring trees and are leaning toward the location of the existing and proposed residence. As stated in Section A.1 and Section B.3 of this report, the Planning Department has considered and applied the provisions of the

Significant Tree Removal Ordinance which implements this General Plan Policy in its review of this application.

b. Conformance with the Zoning Regulations

This project is located in the Single-Family Residential/Menlo Oaks Zoning District (R-1/S-100). The proposed single-family residence's compliance with the district's development standards as required by Section 6300.9.00 is detailed in the table below:

Development Standards	Zoning Requirements	Proposal
Building Site Area	20,000 square feet	31,193 square feet
Minimum Site Width	75 feet	100 feet
Minimum Setbacks		
Front	40 feet	89'-7"
Rear	20 feet	150'-4"
Left Side	10 feet	11'-2"
Right Side	10 feet	11'-2"
Maximum Height	30 feet	20'-6"
Maximum Lot Coverage	25%	17%
Maximum Building Floor Area (FAR)*	9,000 square feet	5,043 square feet
<p>* Per Section 6300.9.60 of the Zoning Regulations, the area of all garages and carports that exceed 400 sq. ft. is counted toward the maximum allowed FAR. The proposed 990 sq. ft. sub-grade basement is not counted toward the maximum allowed FAR per San Mateo County Planning Basement Policy.</p>		

c. Conformance with the Grading Regulations

The following findings must be made in order to issue a Grading Permit for this project. Staff's review of the project is discussed below:

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

The grading plan has been prepared by a licensed civil engineer and has been reviewed and preliminarily approved by the Department of Public Works. The project site has also undergone a geotechnical study prepared by ROMIG Engineers Inc., which has been reviewed and preliminarily approved by the County's Geotechnical Section for soil stability. The report from ROMIG Engineers Inc., provides detailed recommendations

about the proposed development. These specific recommendations and recommendations from other reviewing agencies have been integrated into this grading permit as conditions of approval. These conditions of approval will prevent a significant adverse impact on the environment.

- (2) *That the project conforms to the criteria of Chapter 8, Division VII of the San Mateo County Ordinance Code, including the standards referenced in Section 8605.*

Proposed grading activities meet the (1) Erosion and Sediment Control, (2) Grading, (3) Geotechnical Reports, (4) Dust Control Plans, (5) Fire Safety, and (6) Time Restriction standards referenced in Section 8605 of the Grading and Land Clearing Ordinance. Erosion and sediment control measures will be inspected and must remain in place during grading, demolition, and construction activities. A dust control plan must be submitted for approval and implemented before the issuance of the grading “hard card.” The proposed grading plan was prepared by a licensed civil engineer and reviewed for adequacy by the Department of Public Works. As mentioned above, a geotechnical report was also prepared for this site and reviewed by the County’s Geotechnical Section. Due to the County’s Winter Grading Moratorium, grading is only allowed between April 30 and October 1. If the applicant wishes to preform grading activities during the wet season, they must apply for an exception from the Winter Grading Moratorium, and will be subject to more stringent erosion control measures, monitoring, and inspections.

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

The General Plan designation for this site is Low Density Residential Urban. The proposed construction and associated grading for a new single family residence is consistent with the land use allowed by this General Plan designation. As discussed in the General Plan Compliance, Section B.1 of this report, this project, as conditioned, complies with all applicable General Plan goals and policies.

3. Owner’s Response to Community Concerns

In an effort to respond the community’s concerns, the owner (Mr. Mahadevan) requested that the site arborist meet with the appellant (Mr. Danforth) to re-examine the possibility of retaining oak trees #24 and #25. However, the arborist re-confirmed that these trees will not survive the proposed excavation activities and recommended their removal.

Attachment F

In response to concerns regarding the removal of native oak trees and the associated reduction in tree canopy, Mr. Mahadevan has proposed to increase the quantity of replacement trees. The original conditions of approval contained in the November 10, 2017 Grading Permit approval letter required the replanting of three 15-gallon native oak tree species. Mr. Mahadevan has proposed to replant a total of six 15-gallon native oak tree species and to incorporate these trees into a landscape plan, per the direction of a professional arborist and landscaper to ensure the long term viability of these trees. Condition of Approval No. 18 has been revised to reflect this higher tree replacement ratio.

B. ALTERNATIVES

If the Planning Commission finds that modifications to the proposal are needed to bring the project into compliance with the Significant Tree Ordinance, the Land Clearing and Grading Ordinance, or any other applicable regulations, the Planning Commission may specify that these changes be included in the building plans and evaluated by staff before building permit issuance, or may request a continuance to allow the changes to be incorporated into the plans being presented before the Planning Commission at a subsequent hearing.

Alternatively, the Planning Commission may uphold the appeal, and deny approval of the proposal as presented.

C. ENVIRONMENTAL REVIEW

This project is categorically exempt from environmental review pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15303, Class 3, consisting of the construction and location of limited numbers of new, small facilities or structures; in this case, a single-family residence in a residential zone.

D. REVIEWING AGENCIES

Department of Public Works
Building Inspection Section
Geotechnical Section
Menlo Park Fire Protection District

ATTACHMENTS

- A. Recommended Findings and Conditions of Approval
- B. Appeal Statement
- C. Vicinity Map
- D. Project Site Plans, Floor Plans, Elevations, Civil Plans, Tree Protection Plan
- E. Project Notification Letter
- F. Letter of Approval, dated November 10, 2017
- G. Kielty Tree Survey, dated June 6, 2017
- H. Kielty Tree Survey, dated October 24, 2017

Attachment F

- I. Kiely Tree Canopy Survey, dated December 15, 2017
- J. Site Photos
- K. Correspondence from Interested Members of the Public

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County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2017-00262 Hearing Date: February 14, 2018

Prepared By: Laura Richstone
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That the project is exempt pursuant to Section 15303, Class 3 of the California Environmental Quality Act Guidelines, consisting of the construction and location of limited numbers of new, small facilities or structures; in this case, a single-family residence in a residential zone.

Regarding the Grading Permit, Find:

2. That the granting of the permit will not have a significant adverse effect on the environment. As discussed in this staff report, the project has received preliminary approval from the Department of Public Works and the Geotechnical Section and site specific recommendations have been incorporated as conditions of approval to address any adverse environmental effects.
3. That the project conforms to the criteria of Chapter 8, Division VII, of the San Mateo County Ordinance Code, including the standards referenced in Section 8605. Planning Staff, the Geotechnical Section, and the Department of Public Works have reviewed the project and have determined it conforms to the criteria of Chapter 8, Division VII, of the San Mateo County Ordinance Code, including the standards referenced in Section 8605 and the San Mateo County General Plan, including the timing of grading activities, and implementation of dust control and erosion and sediment control measures.
4. That the project is consistent with the General Plan. The subject site has a General Plan land use designation of Low Density Residential Urban. The proposed single-family residence remains consistent with the allowed density and use of the designation. As proposed and conditioned, the project complies with General Plan Policy 2.23 (*Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion*) and Policy 2.17 (*Erosion and Sedimentation*) because the project includes measures and conditions to address each of these items.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal as described in the plans, supporting materials, and reports submitted on February 14, 2018. Minor revisions or modifications to the project shall be subject to review and approval of the Community Development Director, if they are consistent with the intent of, and in substantial conformance with, this approval.
2. This approval shall be valid for one (1) year from the date of this permit and shall be issued concurrently with the Building Permit (BLD 2017-01804) for the new single-family residence and basement. If the Grading Permit (issued as the “hard card” with all necessary information filled out and signatures obtained) has not been issued within this time period, this approval will expire. No grading activities shall commence until all permits have been issued. An extension of this approval will be considered upon written request and payment of applicable fees sixty (60) days prior to expiration.
3. No grading shall be allowed during the winter season (October 1 to April 30) or during any rain event to avoid potential soil erosion unless a prior written request by the applicant is submitted to the Community Development Director in the form of a completed Application for an Exception to the Winter Grading Moratorium at least two (2) weeks prior to the projected commencement of grading activities stating the date when grading will begin for consideration, and approval is granted by the Community Development Director.

The site is considered a Construction Stormwater Regulated site. Any grading activities conducted during the wet weather season (October 1 to April 30) pursuant to prior authorization from the Community Development Director will also require monthly erosion and sediment control inspections by the Building Inspection Section.

4. Prior to the issuance of the grading permit “hard card,” the applicant shall submit a dust control plan for review and approval by the Planning and Building Department. The plan, at a minimum shall include the following measures:
 - a. Water all construction and grading areas at least twice daily.
 - b. Cover all trucks hauling soil, sand, and other loose material or require all trucks to maintain at least 2 feet of freeboard.
 - c. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
5. Per Section 8605.5 of San Mateo County’s Grading and Land Clearing Ordinance, all equipment used in grading operations shall meet spark arrester and firefighting tool requirements, as specified in the California Public Resources Code.

Attachment F

6. The engineer who prepared the approved grading plan shall be responsible for the inspection and certification of the grading as required by Section 8606.2 of the Grading Ordinance. The engineer's responsibilities shall include those relating to non-compliance detailed in Section 8606.5 of the Grading Ordinance.
7. Prior to the beginning of any construction, the applicant shall implement the approved erosion and sediment control plan and tree protection plan, which shall be maintained throughout the duration of the project. The goal of the Tree Protection Plan is to prevent significant trees, as defined by San Mateo County's Significant Tree Ordinance, Section 12,000, from injury or damage related to construction activities. The goal of the Erosion and Sediment Control Plan is also to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:
 - a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and the use passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.
 - b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.
 - c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.
 - d. Using sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.
 - e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
 - f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.
 - g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
 - h. Performing clearing and earth moving activities only during dry weather.
 - i. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.

Attachment F

- j. Limiting construction access routes and stabilize designated access points.
 - k. Avoiding tracking dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.
 - l. The contractor shall train and provide instruction to all employees and subcontractors regarding the construction Best Management Practices.
 - m. The approved erosion and sediment control plan shall be implemented prior to the beginning of construction
8. All grading and erosion and sediment control measures shall be in accordance to the plans prepared by ROMIG Engineers, Inc., dated September 28, 2017, and approved by the Department of Public Works and the Current Planning Section. Revisions to the approved grading plan shall be prepared and signed by the engineer, and shall be submitted to the Department of Public Works and the Planning Department concurrently prior to commencing any work pursuant to the proposed revision.
9. It shall be the responsibility of the applicant's engineer to regularly inspect the erosion control measures and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected.
10. For the final approval of the Grading Permit, the applicant shall ensure the performance of the following activities within thirty (30) days of the completion of grading:
- a. The engineer shall submit written certification to the Department of Public Works and the Geotechnical Section that all grading has been completed in conformance with the approved plans, conditions of approval, and the Grading Ordinance.
 - b. All applicable work during construction shall be subject to observation and approval by the geotechnical consultant. Section II of the Geotechnical Consultant Approval form must be submitted to the County's Geotechnical Engineer and Current Planning Section.
11. Erosion control and tree protection inspections are required prior to the issuance of a building permit for grading, construction, and demolition purposes, as the project requires the protection of significant trees. Once all review agencies have approved the Building Permit (BLD 2017-01804), the applicant will be notified that an approved job copy of the Erosion Control and Tree Protection Plans are ready for pick-up at the planning counter of the Planning and Building Department. Once the Erosion Control and Tree Protection measures have been installed per the approved plans, please contact Jeremiah Pons, Building/Erosion Control Inspector, at 650/599-1592 or jpons@smcgov.org, to schedule a pre-site inspection. A \$144.00 inspection fee will be added to the building permit for the

Attachment F

inspection. If this initial pre-site inspection is not approved, an additional inspection fee will be assessed for each required re-inspection until the erosion control and tree protection measures are deemed adequate by the Building Inspection Section.

12. Non-significant oak trees #3 and #11, identified on the Erosion Control and Tree Protection plans, shall be retained and protected. Tree protection measures shall include tree protection fencing that extends to the driplines of the trees. Where tree protection fencing does not cover the entire root zone of the trees, a landscape buffer of wood chips spread at a depth of 6" shall be placed where foot traffic is expected to be heavy.
13. All excavation for the foundation near the 27.9" dbh valley oak (tree #5 identified in the arborist report), and the 18" dbh cedar (tree #12) shall be done by hand. The site arborist shall oversee and document all root cutting of roots measuring 2" or more in diameter. Roots left exposed for a period of time shall be covered with layers of burlap and kept moist.
14. No roots measuring over 2" in diameter or greater shall be cut without the consent and approval of the site arborist.
15. Any excavation within 30 feet of the 35" dbh redwood tree (tree #18) shall be inspected and overseen by the site arborist.
16. Trenching for irrigation, electrical, drainage or any other reason shall be hand dug when beneath the driplines of protected trees.
17. Storage of construction vehicles, equipment, and materials shall be limited to the existing driveway and front walkway areas when feasible. Storage of construction vehicles, equipment, and materials is prohibited within the driplines of protected trees.
18. The applicant shall plant on site a total of six native oak tree species using at least 15-gallon size stock to replace the trees removed. Staff verification that the tree planting has occurred is required prior to the final building inspection of the new home.
19. The location and placement of the required oak tree plantings shall be determined and overseen by the site arborist to ensure that the trees are planted in an area best suited for long term viability and growth of the trees. A signed and dated letter from the site arborist verifying that they selected an appropriate location and supervised the plantings shall be required prior to final inspection of construction authorized by Building Permit (BLD 2017-01804).
20. The existing shed in the rear of the subject property shall be removed by hand, in accordance with the arborist report, to prevent impacts to the adjacent coast live oak trees.

Building Inspection Section

21. This project shall require a building permit.
22. This project requires a geotechnical/soils report at the time of building permit submittal.

Geotechnical Section

23. The construction of the proposed residence shall include the recommendations from the project geotechnical engineer as well as include scheduled on site review by the project engineer during all required aspects of construction. The project geotechnical engineer shall complete and sign the County of San Mateo form for project design review and post construction observations.

Department of Public Works

24. Prior to the issuance of the building permit or planning permit (for Provision C3 Regulated Projects), the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.
25. 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.
26. 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.

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MEMORANDUM

COUNTY OF SAN MATEO PLANNING AND BUILDING DEPARTMENT

DATE: April 18, 2018
TO: Laura Richstone, Project Planner
FROM: Daniel Krug, San Mateo County Arborist
SUBJECT: 900 Menlo Oaks Reduced Light Well - County Arborist Review and Recommended Tree Protection Measures

Assignment: Review revised grading and tree protection plans for new home construction at 900 Menlo Oaks Drive.

Summary: The revised plans address the Planning Commission's decision to uphold an appeal of a staff-approved grading permit, requiring the applicant to retain a Coast live oak (*Quercus agrifolia*) near the northeast corner of proposed construction. Based on the Planning Commission's decision, the homeowner can minimize the impact of construction damage to the tree by observing additional mitigatory measures.

According to the March 16, 2018 arborist report, the tree in question (#24) has the following characteristics.

- Diameter at Breast height of 20.7"
- Condition rating of 60 (out of 100), 100 being of excellent health and form.
- Estimated height of 40', estimated canopy spread of 20'.
- Additional comments: direct quote from report "*Good Vigor, fair form, suppressed by redwoods heavy toward home, needs maintenance.*"

The project arborist's (PA) assessment methods of tree conditions are provided in the submitted report.

Observations:

The observations and discussion provided within this document are based on my review of the PA's report and the revised grading plans submitted to the Planning and Building Department. No Tree Risk Assessment or inspection of the tree has been provided by the County.

Discussion:

In the revised plan, the basement light well on the north side of the house was reduced, minimizing prior intrusion into the dripline of the tree. It is my understanding that the proposed plan adjustments are based on exploratory root investigation conducted by the PA to identify and avoid lateral roots near the light well construction. This excavation was done using a super-sonic air tool to displace soil and minimize damage to the tree's roots. The plans also indicate a paver patio is to be installed on the south side of the tree, partially within the dripline of the tree.

San Mateo County Planning Commission Meeting

Owner/Applicant: _____

Attachment: _____

File Numbers: _____

It should be stated that in most cases, tree roots grow within the top 3-4 feet of soil and spread radially away from the tree equal or greater to the dripline (furthest reach of tree canopy). The greatest volume of roots grow within the upper 2 feet of soil; these roots are generally smaller in diameter and absorb moisture and nutrients from the soil. Roots which venture into deeper horizons of soil primarily provide structural stability.

Although shifting the extent of construction to reduce encroachment within the dripline of the tree minimizes potential impacts, it does not eliminate the need for over-dig. Over-digging the extent of construction is the practice of excavating beyond the planned extreme of a foundation to install concrete forms and bracing. In my experience this is a commonplace practice used to provide additional area to work prior to the installation of foundation. The extent of over-dig is dependent on the depth of the foundation and form-bracing strategy.

In an effort to minimize impacts to this tree's root system, I have suggested that the practice of over-digging be eliminated for the portion of the foundation that encroaches into the dripline of the tree or the root protection zone (10x diameter of the main stem; 207" or 17.25') of the tree, whichever is greater. Foundation over-dig would be allowed outside of this root protection zone.

The plans also include a large paved patio on the south side of the tree. Under typical circumstances installation of patio pavers involves excavation to a depth of 12-18" below ground level, depending on the thickness of paving material and the aggregate needed to support it. I suggest that the homeowner explore using geotextile fabric to minimize the depth of sub-surface base material to preserve as much of the fibrous root system of the oak as possible. Similar to minimizing over-dig within the dripline of the tree, installation of geotextile fabrics is recommended to the extent of the dripline or 10x diameter, whichever is greater. Outside of this root protection zone standard, subgrade installation is sufficient. Another option would be to minimize the encroachment of the patio into the root protection zone to further reduce impacts within the dripline of the tree.

Geotextile fabrics are a corrugated plastic mesh which provide structural support to base materials when installation of suggested sub-surface material is not possible. Using geotextile fabrics as tree protection is being widely adopted with the Arboricultural and construction industries.

In addition, it will be required that Tree Protection Fencing be installed and maintained through the duration of the project to prevent compaction to the remaining root system of the tree. Regular inspections of the tree protection shall be observed by the PA. According to the arborist report the following inspection interval would be recommended:

"The site will be inspected after the tree protection measures are installed and before the start of construction. Other inspections will be carried out on an as needed basis. Any time work is within 20 feet of the protected tree on-site, the site arborist must be notified 48 hours in advance so that a site visit can be scheduled during the proposed work."

If this protective measure of inspection is followed by the General Contractor/homeowner and implemented by the PA it is assumed that this tree, and all other protected trees within the project boundaries should be adequately protected during construction.

San Mateo County Planning Commission Meeting

Owner/Applicant: _____

Attachment: _____

File Numbers: _____

Additional Recommendations:

I also recommend a tree healthcare schedule through the duration of construction and after care, including IPM (integrated pest management) and fertilization to further minimize stress to tree #24 and all trees impacted by construction.

Summary:

Provided the Planning commission’s decision to uphold the appellant’s request to retain tree #24 as a protected tree during construction, the property owner is tasked with the challenge preserving this tree. The recommendations above for minimizing over-dig for foundation installation, requiring installation of geotextile fabrics to minimize subsurface digging for the patio within the dripline of the tree, installing and maintaining strict surveillance of the root protection zone by the PA, and identifying and implementing a comprehensive integrated pest management strategy during and after construction, should further reduce stress for the impacted tree and assist in retaining it within the landscape.

It should also be stated that foundation and patio intrusion within the dripline of the tree including removal of roots and compaction to root area will still stress this established tree. Root loss has a long-term effect on overall tree health and vigor. On average impact from construction can take 2-3 years or more to manifest, depending on pre-construction preparation and appropriate aftercare.

The statements and opinions provided above are based on grading plans and Arborist reports submitted to the County of San Mateo and reviewed by the County Arborist.

Daniel Krug
San Mateo County Arborist
ISA Certified Arborist IL-4996A

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San Mateo County Planning Commission Meeting

Owner/Applicant:

Attachment:

File Numbers: