

Exhibit F

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Tree Assessment
Forest Management Plan
Roberts Residence

Prepared for:

Stocker Allaire

Prepared by:

Ono Consulting
Members Society of American Foresters
ISA Certified Arborist #WE-0536A
ISA Board Certified Master Arborist WE-9388B
1213 Miles Avenue
Pacific Grove, CA 93950

February 10, 2023

Owner:

Bryan & Adrienne D Roberts Trust
20 Naranja Way
Portola Valley CA 94028

Architect:

Ken Linsteadt Architects
1412 Van Ness Avenue
San Francisco, CA 94109
Tel: 415.351.1018

Forester and Arborist

Ono Consulting
ISA Certified Arborist #WE-0536A
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311 Forest Avenue
Pacific Grove, CA 93950

SUMMARY

Development is proposed for this site located at 37600 Highway One. Because Monterey cypress trees forest this site, a tree assessment/arborist report has been prepared that identifies existing trees on-site and addresses the potential effects that the project may have on the existing tree resources on site. The report also lists recommendations for the health and safety of the trees on the project.

The project proposes to perform the following:

- a renovation of a single-family home,
- demolition of a detached guest house,
- build a new detached guest house, and
- build a new detached garage.

The project does not require tree removal; however, several Monterey cypress trees will require monitoring and protection during excavation for the construction proposed.

ASSIGNMENT/SCOPE OF PROJECT

To ensure the protection of the tree resources on site, the property owners, Bryan & Adrienne D Roberts Trust, through Stocker and Allaire General Contractors, have requested an assessment of the trees in proximity to proposed development areas and an arborist report for trees that are adjacent to these areas on this property. To accomplish this assignment, the following tasks have been completed;

- Evaluate health, structure, and preservation suitability for each tree within or adjacent (15 feet or less) to the proposed development of trees greater than or equal to six diameter inches at 24 inches above grade.
- Review proposed building site plans as provided by Ken Linsteadt Architects.
- Make recommendations for preconstruction treatments to facilitate tree retention.
- Create preservation specifications, as it relates to numbered trees keyed to an annotated Tree Location Map.
- Determine the number of trees affected by construction that meet protected tree criteria as defined by the County of Monterey, Title 20 Monterey County Coastal Zoning Ordinance; as well as mitigation requirements for those to be affected.
- Document findings in the form of a report as required by the County of Monterey Planning Department.

LIMITATIONS

This assignment is limited to the review of plans prepared by Ken Linsteadt Architects and submitted to me by Stocker and Allaire dated September 9, 2022, to assess the effects of potential construction to trees within or adjacent to construction activities. The assessment has been made of these plans specifically and no other plans were reviewed. Only minor grading and erosion details are discussed in this report as it relates to tree health.

PURPOSE

This tree assessment/forest management report is prepared for this parcel due to proposed construction activities located at 37600 Highway One, Big Sur CA. The purpose of the assessment is to determine what trees will be affected by the proposed project. Monterey cypress trees are considered protected trees as defined by the County of Monterey, Title 20 Monterey County Coastal Zoning Ordinance in the Coast -Big Sur Planning area.

GOAL

The goal of this plan is to protect and maintain the Big Sur Coastal forested resources through adherence to development standards, allowing the protection and maintenance of its forest resources. Furthermore, it is the intended goal of this report to aid in planning to offset the potential effects of the proposed development on the property while encouraging forest stability and sustainability, to perpetuate the forested character of the property and the immediate vicinity.

INTRODUCTION

This forest management plan is prepared for the Bryan & Adrienne D Roberts Trust owners of the property at 37600 Highway One, Big Sur CA by Ono Consulting, Urban Foresters, and Certified Arborists due to the proposed construction. Monterey County's Coastal Implementation Plan Sec. 20.146.060 requires a forest management plan when development is necessary that may affect native and protected trees six inches in diameter or greater to preserve and maintain the forest and its beneficial uses. The County identifies Monterey cypress trees as native tree species requiring special consideration and management.

SITE DESCRIPTION

- 1) Assessor's Parcel Number: 418-111-012-000
- 2) Location: 37600 Highway One, Big Sur CA
- 3) Parcel size: 1.59 acres / 69,260.4 sf.
- 4) Existing Land Use: The parcel is developed, zoned WSC/40-D(CZ)
- 5) Slope: Slopes range from 9% to over 25%
- 6) Soils: The parcel is located on three different soil types:
 - a. Lockwood shaly loam (LeD), 9 to 15 percent slopes on the west side of the parcel, a strongly sloping soil on alluvial fans and terraces. The available water capacity is 6 to 8 inches. Runoff is medium, and the erosion hazard is moderate. Permeability is relatively slow, and roots penetrate to 60".
 - b. Outcrop-Xerorthents association (Rc) is rock, 30 to 75 percent slopes on the northern portion of the parcel. Rc soil has generally rapid runoff and the erosion hazard is very high where the soil is exposed. Drainage, permeability, effective rooting depth, and available water capacity are extremely variable within short distances. Some roots will penetrate the rock where it is fractured or weathered.
 - c. Sheridan coarse sandy loam (SoG), 30 to 75 percent slopes on the east side of the parcel. Sheridan soil is a steep and very steep soil on hills and mountains. Runoff is rapid or very rapid, and the erosion hazard is high or very high, however, seedling mortality is slight or moderate, and the windthrow hazard is slight.
- 7) Vegetation and Trees: The vegetation is a mixture of Monterey cypress and mixed landscape ornamental understory. The stand appears to be well maintained with no significant diseases or pests.

BACKGROUND/PROJECT DESCRIPTION

Stocker Allaire contacted Ono Consulting and requested an assessment of trees adjacent to the proposed design development, The findings from the assessment are to be prepared and documented in a report to work in conjunction with other conditions for approval of the building permit application.

A site visit was taken to the property that focused on incorporating the preliminary location of site improvements coupled with consideration for the general goals of site improvement desired by the landowner. During this site visit, the proposed improvements assessed included preserving trees to the greatest extent feasible, maintaining the view shed, and general aesthetic quality of the area while complying with county codes.

A study of the individual trees was made to determine the treatments necessary to complete the project to meet the goals of the landowner. As a result trees within and immediately adjacent to the proposed development area were located, measured, inspected, and recorded. The assessment of each tree concluded with an opinion of whether the tree should be removed, or preserved, based on the extent and effect of construction activity on the short and long-term health of the tree. All meetings and field reviews were focused on the area immediately surrounding the proposed development.

OBSERVATIONS/DISCUSSION

The following list includes observations made while on site and summarizes details discussed during this stage of the planning process.

- The site is forested mainly with Monterey cypress trees (*Hesperocyparis macrocarpa*) of varying sizes and maturity. Tree Diameters range from 6” in diameter to 90”.
- Over 50% of the trees on the property are of significant size (24” in diameter” or greater) that compose the majority of the stand of trees. Trees vary in spacing from 15-30 feet for the larger specimens to 10-25 feet for smaller-diameter trees.
- At this time no trees are proposed or require removal or major pruning to accommodate construction.
- Trees #715 and #716 have encroachment into root zones from the current structure’s foundation which will be removed. The new structure will be placed further away from these trees.
- Several areas on the site plan identify areas where there are no trees. It appears these trees could not be located and is identified as either removed or no tree.
- The new driveway appears that it follows close to the same area and pattern as the existing driveway, therefor no significant roots are expected to be impacted.
- No alternate building sites were considered for this assessment as the site and or design are constrained by the pre-existing conditions, existing structure location, and driveway.

PROJECT ASSESSMENT/CONCLUSION

In reviewing the proposal to modify the single-family residence, construct a new garage, and construct a detached guest house, it is determined that it will not harm the existing stand or individual trees. No screening is lost as no trees are being removed for the design. Most of the property contains tree cover, which will remain undisturbed. The design does require some excavation and demolition near cypress trees that will require monitoring, however it appears the impact will be minimal if at all.

Short-term site impacts are confined to the construction envelope and immediate surroundings where a portion of the existing structure will be removed and enlarge the planting area. Development is located within an ornamentally landscaped area, therefore no long-term impacts to the forest ecosystem (stand) are anticipated due to the intact number of existing trees that remain. The project as proposed is not likely to significantly reduce the availability of wildlife habitat over the long term.

RECOMMENDATIONS

Cypress Monitoring During Demolition and Construction

A qualified forester, arborist, or biologist shall enter into an agreement with the owner or contractor to monitor construction activities to ensure conformance to the submitted forest management plan. Before issuance of a building permit, the applicant shall provide to the HCD-Planning Department a copy of the contractual agreement with a qualified monitor for review and approval and provide evidence of work completion and the presence of the monitor on-site during the excavation phases of the construction work.

Tree Protection Standards

Before the commencement of any construction activity, the following tree protection measures shall be implemented by the contractor and approved by a qualified arborist or forester:

- Trees located adjacent to the construction area near any trees shall be protected from damage by construction equipment using temporary fencing and through wrapping of trunks with protective materials. No stripping of topsoil or grubbing of understory shall occur in tree preservation zones.
- Fenced areas and trunk protection materials shall remain in place during the entire construction period. Should access to the area be necessary, a Professional Forester or Certified Arborist must be contacted to inspect the site for a recommended course of action.
- Fencing shall consist of chain link, snowdrift, plastic mesh, hay bales, or field fence. Fencing is not to be attached to the tree but free-standing or self-supporting so as not to damage trees. Fencing shall be rigidly supported and shall stand a minimum height of four feet above grade and should be placed to the farthest extent possible from the tree's base to protect the area within the tree's drip line (typically 10-12 feet away from the base of a tree).
- In cases where access or space is limited for tree protection, it is permissible to protect the tree within the 10–12-foot distance after determination and approval by a qualified forester or arborist.

- Soil compaction, parking of vehicles or heavy equipment, stockpiling of construction materials, cleaning of concrete or plaster, and/or dumping of spoils or materials shall not be allowed adjacent to trees on the property especially within or near fenced areas.

During grading and excavation activities:

- All trenching, grading, or any other digging or soil removal that is expected to encounter tree roots should be monitored by a qualified arborist or forester to ensure against drilling or cutting into or through major roots. Again, no stripping of topsoil or grubbing of the understory shall occur in tree preservation zones.
- The project architect and qualified arborist should be on-site during excavation activities to direct any minor field adjustments that may be needed.
- Trenching for retaining walls, footings, or paving located adjacent to any tree shall be done by hand where practical and any roots greater than 2 inches in diameter shall be bridged or pruned appropriately.
- Any roots that must be cut shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock-saw, narrow trencher with sharp blades, or other approved root pruning equipment.
- Any roots damaged during grading or excavation shall be exposed to sound tissue and cut cleanly with a saw.

When significant roots (2" diameter or larger) are discovered:

- The arborist/forester will be authorized to halt excavation until appropriate mitigation measures are formulated and implemented.
- If significant roots are identified that must be removed that will destabilize or negatively affects the target trees, the property owner will be notified immediately and a determination for removal will be assessed and made as required by law for treatment of the area that will not risk death decline or instability of the tree consistent with the implementation of appropriate construction design approaches to minimize effects, such as hand digging, bridging or tunneling under roots, etc.

Best Management Practices (BMP)

The health of trees adjacent to development should not be affected if the following practices are adhered to:

- A) Do not deposit any fill around trees, which may compact soils and alter water and air relationships. Avoid depositing fill, parking equipment, or staging construction materials near existing trees. Covering and compacting soil around trees can alter water and air relationships with the roots. Fill placed within the dripline may encourage the development of oak root fungus (*Armillaria mellea*). As necessary, trees may be protected by boards, fencing, or other materials to delineate protection zones.
- B) Pruning shall be conducted so as not to unnecessarily injure the tree. General principles of pruning include placing cuts immediately beyond the branch collar, making clean cuts by scoring the underside of the branch first, and for live oak, avoiding the period

from February through May.

- C) Root cutting should occur outside of the springtime. Late June and July would likely be the best. Pruning of the live crown should not occur from February through May.
- D) Limb or trunk material (firewood) greater than 2 inches in diameter remaining on-site for more than one month that is not cut and split into firewood should be covered with clear plastic that is dug in securely around the pile. This discourages infestation and dispersion of bark beetles.
- F) A mulch layer up to approximately 4 inches deep should be applied to the ground under selected trees following construction. Only 1 to 2 inches of mulch should be applied within 1 to 2 feet of the trunk, and under no circumstances should any soil or mulch be placed against the root crown (base) of trees. The best source of mulch would be from chipped material generated on-site.
- G) If trees near the development are visibly declining in vigor, a Professional Forester or Certified Arborist should be contacted to inspect the site to recommend a course of action.

Tree Pruning

It is understood that the pruning of retained trees may be expected for this site, especially where the proposed addition is to be constructed. Detailed pruning specifications necessary must conform to ANSI A300 Standards. Pruning will also include the trees that have deadwood or are exhibiting some minor structural defect or minor disease that must be compensated. Those trees that may require pruning and possible monitoring are the closest to the proposed structure improvements and along the driveway entrance area. Trees should be monitored on occasion for health and vigor after pruning. Should the health and vigor of any tree decline it will be treated as appropriately recommended by a certified arborist or qualified forester.

The following are offered as guidelines when pruning:

- In general, the trees will be pruned first for safety, next for health, and finally for aesthetics.
- The type of pruning is determined by the size of the branches to be removed. General guidelines for branch removal are:
 1. Fine Detail pruning- limbs under 2-inch diameter are removed
 2. Medium Detail Pruning – Limbs between 2 and 4-inch diameter
 3. Structural Enhancement – limbs greater than 4-inch diameter.
 4. Broken and cracked limbs-removed will be removed in high-traffic areas of concern.

Crown thinning is the cleaning out of or removal of dead diseased, weakly attached, or low-vigor branches from a tree crown

- All trees will be assessed on how a tree will be pruned from the top down.
- Trimmers will favor branches with strong, U- shaped angles of attachment and where possible remove branches with weak, V- shaped angles of attachment and/or included bark.
- Lateral branches will be evenly spaced on the main stem of young trees and areas of fine pruning.
- Branches that rub or cross another branch will be removed where possible.
- Lateral branches will be no more than one-half to three-quarters of the diameter of the stem to discourage the development of co-dominant stems where feasible.
- In most cases, trimmers will not remove more than one-quarter of the living crown of a tree at one time. If it is necessary to remove more, it will be done over successive years.

Crown-raising removes the lower branches of a tree to provide clearance for buildings, vehicles, pedestrians, and vistas.

- Live branches on at least two-thirds of a tree's total height will be maintained wherever possible. The removal of many lower branches will hinder the development of a strong stem.
- All basal sprouts and vigorous epicormic sprouts will be removed where feasible.

Crown reduction is used to reduce the height and/or spread of trees and is used for maintaining the structural integrity and natural form of a tree.

- Crown reduction pruning will be used only when necessary. Pruning cuts will be at a lateral branch that is at least one-third the diameter of the stem to be removed wherever possible.
- When it is necessary to remove more than half of the foliage from a branch it may be necessary to remove the entire branch. A crown restoration is used to improve the structure and appearance of trees that have been topped or severely pruned by the use of heading cuts. One of three sprouts on the main branch stubs should be selected to reform a natural-appearing crown. Selected vigorous sprouts may need to be thinned to ensure adequate attachment for the size of the sprout. Restoration may require several years of pruning.

Remedial pruning should occur before construction. Following construction, any above-ground tree pruning/trimming should be delayed until one year after completion of construction. Following construction, a qualified forester/arborist should monitor trees adjacent to the area of the improvement and if any decline in health that is attributable to the construction is noted, additional trees should be planted on the site.

Agreement by Landowner

The following standard conditions are made a part of all Monterey County Forest Management Plans:

A. Management Objectives

1. Minimize erosion to prevent soil loss and siltation.
2. Preserve natural habitat including native forest, understory vegetation, and associated wildlife.
3. Prevent forest fire.
4. Preserve scenic forest canopy as located within the Critical View shed (any public viewing area).
5. Preserve landmark trees to the greatest extent possible as defined below.

B. Management Measures

1. **Tree Removal:** No tree will be removed without a Forest Management Plan or an Amended Forest Management Plan.

2. **Application Requirements:** Trees proposed for removal will be conspicuously marked by flagging or by paint. The proposed removal of native trees greater than six inches will be the minimum necessary for the proposed development. Removal not necessary for the proposed development will be limited to that required for the overall health and long-term maintenance of the forest, as verified in this plan or subsequent amendments to this plan.

3. **Landmark Trees:** All landmark trees will be protected from damage if not permitted to be removed as a diseased tree, which threatens to spread the disease to nearby healthy trees, or as a dangerous tree, which presents an immediate danger to human life or structures. Landmark oaks are trees that are visually, historically, or botanically significant specimens or are greater than 24 inches or more in diameter at breast height (DBH), or more than 1,000 years old.

4. **Dead Trees:** Because of their great value for wildlife habitat (particularly as nesting sites for insect-eating birds) large dead trees will normally be left in place. Smaller dead trees will normally be removed to reduce the fire hazard. Dead trees may be removed at the convenience of the owner.

5. **Thinning:** Trees less than six inches in diameter breast height may be thinned to promote the growth of neighboring trees, without first developing a Forest Management Plan.

6. **Protection of Trees:** All trees other than those approved for removal shall be retained and maintained in good condition. Trimming, where not injurious to the health of the tree, may be performed wherever necessary in the judgment of the owner, particularly to reduce personal safety and fire hazards. Retained trees that are located close to the construction site shall be protected from inadvertent damage

by construction equipment through wrapping of trunks with protective materials, bridging or tunneling under major roots where exposed in foundation or utility trenches, and other measures appropriate and necessary to protect the well-being of the retained trees.

7. Fire prevention: In addition to any measures required by the local California Department of Forestry fire authorities, the owner will;

- A) Maintain a spark arrester screen atop each chimney.
- B) Maintain spark arresters on gasoline-powered equipment.
- C) Establish a "greenbelt" by keeping vegetation in a green growing condition to a distance of at least 50 feet around the house.
- D) Break up and clear away any dense accumulation of dead or dry underbrush or plant litter, especially near landmark trees and around the greenbelt.

8. Use of fire (for clearing, etc.): Open fires will be set or allowed on the parcel only as a forest management tool under the direction of the Department of Forestry authorities, pursuant to local fire ordinances and directives.

9. Clearing Methods: Brush and other undergrowth, if removed, will be cleared through methods, which will not materially disturb the ground surface. Hand grubbing, crushing, and mowing will normally be the methods of choice

10. Irrigation: To avoid further depletion of the groundwater resource, prevent root diseases and otherwise maintain favorable conditions for the native forest, the parcel will not be irrigated except within developed areas. Caution will be exercised to avoid over-watering around trees.

11. Exotic Plants: Care will be taken to eradicate and avoid the introduction of the following pest species:

- A) Pampas grass
- B) Genista (Scotch broom, French broom)
- C) Eucalyptus (large types)

Amendments

The Monterey County Director of Planning may approve amendments to this plan, provided that such amendments are consistent with the provisions of the discretionary permit or building submittal. Amendments to this Forest Management Plan will be required for proposed tree removal not shown as part of this Plan when the proposed removal fans within the description of a Forest Management Plan or Amendment to an existing Forest Management Plan.

Amended Forest Management Plan

A) An amended Forest Management Plan shall be required when:

1. The Monterey County Director of Planning has previously approved a Forest

Management Plan for the parcel.

2. The proposed tree removal as reviewed as part of a development has not been shown in the previously approved Forest management plan

B) At a minimum, the Amended Forest Management Plan shall consist of:

1. A plot showing the location, type, and size of each tree proposed for removal, as well as the location and type of trees to be replanted,
2. A narrative describing reasons for the proposed removal, alternatives to minimize the amount and impacts of the proposed tree removal, tree replanting information, and justification for the removal of trees outside of the developed area is proposed.

Compliance

It is further understood that failure to comply with this Plan will be considered a failure to comply with the conditions of the Use Permit.

Transfer of Responsibility

This plan is intended to create a permanent forest management program for the site. It is understood, therefore, that in the event of a change of ownership, this plan shall be as binding on the new owner as it is on the present owner. As a permanent management program, this Plan will be conveyed to the future owner upon the sale of the property.

Report Prepared By:



February 10, 2023

Frank Ono, SAF Forester #48004 & ISA Certified Arborist #WE-0536A Date

Recommendations Agreed to by the landowner:

Landowner

Date

Forest Management Plan approved by:

Director of Planning

Date

PHOTOGRAPHS

View of site from the lower driveway looking up at garage site and property entrance



View looking south from the lower driveway

View looking to the northwest from the driveway



View looking up to garage area

TREE CHART

Tag	Species	DBH	Crown	Health	Comments	Lot 1
712	MC	6	6	Fair		X
717	MC	8	8	Fair		X
719	MC	8	10	Fair		X
744	MC	8	8	Fair		X
745	MC	8	8	Fair		X
746	MC	8	8	Fair		X
747	MC	10	10	Fair		X
749	MC	10	10	Fair		X
711	MC	12	12	Fair		X
726	MC	16	12	Fair		X
701.1	MC	18	12	Fair		X
721	MC	18	14	Fair		X
724	MC	20	15	Poor	Topped,1 Dead Limb	X
710	MC	24	15	Fair		X
715	MC	24	15	Fair		X
725.2	MC	26	14	Fair		X
725.1	MC	28	15	Fair		X
704	MC	36	13	Fair		X
714	MC	36	10	Poor	Topped, Chlorotic	X
718	MC	40	16	Fair		X
723	MC	40	14	Fair		X
716	MC	50	20	Fair		X
725	MC	50	20	Fair		X
703	MC	60	20	Fair		X
713	MC	60	30	Fair		X
722	MC	60	25	Fair		X
725.3	MC	68	30	Fair		X
701	MC	72	25	Fair		X
706	MC	72	25	Fair		X
720	MC	72	25	Fair		X
708	MC	80	60	Fair		X
705	MC	84	25	Fair		X
725.4	MC	84	42	Fair		X
709	MC	96	70	Fair		X

MC= Monterey Cypress

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37600 HIGHWAY ONE
 BIG SUR, CA 93920
 APN: 418-111-012

DRAWN BY: _____
 DATE: _____

SITE PLAN
A1.01
 11.08.2022



1 SITE PLAN

