

# Exhibit E

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**EXHIBIT E**  
**Kaufmann Residence**  
**3309 Camino Del Monte, Carmel CA**  
**Tree Assessment Forest Management Plan**

Prepared for:

Alan Turpen Associates

Prepared by:

Frank Ono  
Forester  
Society of American Foresters I.D.# 48004  
Certified Arborist #536  
1213 Miles Avenue  
Pacific Grove, CA 93950

April 24, 2018

Owner:

Mark & Lisa Kaufmann Trust  
3092 Serra Avenue  
Carmel, CA 93923

Architect:

Alan Turpen Associates  
San Carlos Street 2 NW  
Carmel, CA 93921

Forester and Arborist

Frank Ono, Society of American Foresters # 048004, Certified Arborist #536  
F.O. Consulting  
1213 Miles Ave  
Pacific Grove, CA 93950

## **SUMMARY**

Development is proposed for this site located at 3309 Camino Del Monte, Carmel CA 93923. The project proposes to build a single-family home requiring the removal of seven trees; four (4) Monterey pines and three (3) Coast live oak trees with the retention and protection of the remaining trees. All remaining trees that are adjacent to the proposed construction are considered to range from poor to fair condition both structurally and in health and are to be protected and retained. A tree assessment/arborist report has been prepared that identifies and addresses the affects that the project will have to the existing tree resources on site as well as a list of recommendations for the project.

## **ASSIGNMENT/SCOPE OF PROJECT**

Development of this parcel may have various affects to the adjacent trees from proposed construction. To ensure protection of the tree resources on site, the property owners, Mark & Lisa Kaufmann Trust, has 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 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 Mr. Turpen.
- Make recommendations for alternative methods and preconstruction treatments to facilitate tree retention.
- Create preservation specifications, as it relates to a Tree Location/Preservation Map.
- 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 submitted to me recently by Alan Turpen Associates to assess affects from 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. No grading details were specifically submitted to me to study, therefore only the minor grading and erosion relating to tree health are discussed in this report as it. It is not the intent of this report to be a monetary valuation of the trees or provide risk assessment for any tree on this parcel, as any tree can fail at any time. No clinical diagnosis was performed on any pest or pathogen that may or may not be present. In addition to an inspection of the property, F.O. Consulting relied on information provided in the preparation of this report (such as, surveys, property boundaries, and property ownership) and must reasonably rely on the accuracy of the information provided. F.O. Consulting shall not be responsible for another's means, methods, techniques, schedules, sequence or' procedures, or for contractor safety or any other related programs; or for another's failure to complete the work in accordance with the plans and specifications.

## **PURPOSE**

This tree assessment/forest management report is prepared for this parcel due to proposed construction activities that are intent building a new structure located at 3309 Camino Del Monte, Carmel CA. The purpose of the site visit was to give an independent assessment of the existing trees that are on site and to determine if any of the trees will be affected by the proposed project. Oak trees are considered protected trees as defined by the County of Monterey, Title 20 Monterey County Coastal Zoning Ordinance.

## **GOAL**

The goal of this plan is to protect and maintain the Carmel Area forested resources through the adherence of development standards, which allow the protection, and maintenance of its forest resources. Furthermore, it is the intended goal of this report to aid in planning to offset any potential effects of proposed development on the property while encouraging forest stability and sustainability, perpetuating the forested character of the property and the immediate vicinity.

## INTRODUCTION

This forest management plan is prepared for the Mark & Lisa Kaufmann Trust, owners of the lot located at 3309 Camino Del Monte, Carmel CA 93923 CA by Frank Ono, Forester and Certified Arborist, S.A.F. #48004 and ISA #536 due to construction. Monterey County's Coastal Implementation Plan Sec. 20.146.060 in conjunction with the Carmel Area Land Use Plan requires a forest management plan when tree removal is necessary of native trees regardless of size or amount to preserve and maintain the forest and its beneficial uses. In this area the County identifies Monterey pines and Coast live oak as native tree species that require special consideration for management.

## SITE DESCRIPTION

- 1) Assessor's Parcel Number: 009-051-017-000
- 2) Location: 3309 Camino Del Monte, Carmel CA 93923
- 3) Parcel size: 0.2155 Acres
- 4) Existing Land Use: The parcel is undeveloped and zoned MDR/2-D (CZ) for residential use
- 5) Slope: The parcel is on a ridge, with terraced flats. Slopes range from 10% to 25%. There is a large (estimated at over 100 yards) mass of fill soil deposited in the middle of the property unnaturally elevating the slope of the site, natural slope is closer to 15-20%.
- 6) Soils: The parcel is located on Santa Lucia channery clay loam, and is about 17-24" deep. Bedrock is found generally at a depth of 24 to 33 inches. Runoff is high and erosion hazard is low. The mass of fill in the middle of the site appears to be from the surrounding properties and the same soil type.
- 7) Vegetation: The vegetation is of the Monterey Pine Forest type. It is a mixture of some Monterey Pine trees in poor condition with Coastal live oak understory present. There is one Monterey cypress located along the road.
- 8) Forest Condition and Health: The forest condition and health is evaluated with the use of the residual trees and those of the surrounding Monterey Pine Forest as a stand. This is a disturbed Monterey Pine Forest with multiple pine stumps indicating high mortality. There have been multiple phased removals and the buildup of offsite fill and the topping of neighboring trees likely contributed to the decline of the trees on site. Understory consists of smaller sized oak saplings.

## **BACKGROUND/PROJECT DESCRIPTION**

On February 8th, I (Frank Ono, F.O. Consulting) I was contacted by Alan Turpen and Associates, architect, who requested that I visit the site located at 3309 Camino Del Monte, Carmel CA for an assessment of trees adjacent or within the proposed construction areas. Mr Turpen requested the findings from the review and assessment of trees within an adjacent to the proposed design development to be prepared and documented in a report that would work in conjunction with other conditions for approval of the building permit application.

Several site visits were taken to the property to assess trees for health and condition at that time. The assessment focused on incorporating the preliminary location of site improvements coupled with consideration for the general goals of site improvement desired of 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 and 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 to the short and long term health of the tree. All meetings and field review 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 a disturbed site, forested mainly with coast live oak.
- Seven trees are required to be removed for the proposed project.
- Most of the trees on the property are of moderate size (less than 24" in diameter" diameter) that compose the upper pine canopy. Understory trees are all Coast live oaks ranging from 2" diameter saplings to 8" diameter smaller crowned trees.
- The site has a steeply sloped embankment where the driveway entrance is proposed and access to the building site requires soil cuts with considerable grading to accomplish access to the site. There is a stand of Monterey pine trees located within this access area that will be affected by grading.
- Several trees are located within the building footprint and several others are just outside the building footprint that will need encroachment into root zones for foundations. Trees assessed adjacent to proposed development are oaks with deep rooting in soil with little lateral root growth, consequently close excavations into root zones may be allowable. One Oak (#76) is to be retained but may be affected dependent on the amount of excavation required and will be determined at the time of excavation for the building foundation.
- No alternate building sites were considered for this assessment as the site constrained by pre-existing conditions and lack of available space.

## TREE CHART

The following trees were found on site. Seven trees were found in need of removal to facilitate the project.

ID#	Diameter	Species	Remove	Monitor
68	14	Monterey pine		
69	14	Monterey pine	x	
70	14	Monterey pine	x	
71	12	Monterey pine	x	
72	14	Monterey pine		
73	24	Cypress		
75	6	Coast live oak		
76	6	Coast live oak		x
77	8	Coast live oak	x	
78	11	Coast live oak	x	
79	8	Coast live oak	x	
80	8	Coast live oak		
81	6	Coast live oak		
82	8	Coast live oak		
83	6	Coast live oak		
84	24	Monterey pine	x	

## PROJECT ASSESSMENT/CONCLUSION

Whenever construction activities take place near trees, there is the potential for those trees to experience decline in the long-term as well. The greatest attempt has been made to identify and remove those trees likely to experience such a decline. No significant long-term affects to the forest ecosystem are anticipated with this design. The project as proposed is not likely to significantly reduce the availability of wildlife habitat over the long-term and have been evaluated for the following:

- Soil erosion; Slopes are gentle to moderate and can be addressed by appropriate measures
- Water Quality: The removal of the trees will not substantially lessen the ability for the natural assimilation of nutrients, chemical pollutants, heavy metals, silt and other noxious substances from ground and surface waters;
- Ecological Impacts: The removals will not have a substantial adverse impact upon existing biological and ecological systems, climatic conditions which affect these systems, or such removal will not create conditions which may adversely affect the dynamic equilibrium of associated systems;
- Noise Pollution: The removals will not significantly increase ambient noise levels to the degree that a nuisance is anticipated to occur;
- Air Movement: The removals will not significantly reduce the ability of the existing vegetation to reduce wind velocities to the degree that a nuisance is anticipated to occur;
- Solar shade or sunlight: The removals of trees are of both smaller less dominant trees or those of poorer quality.
- Wildlife Habitat: The removals will not significantly reduce available habitat for wildlife existence and reproduction or result in the immigration of wildlife from adjacent or associated ecosystems;

### Short Term Impacts

Site disturbance will occur during driveway and home construction. Approximately 2900 square feet of the parcel will be occupied by the improvements planned (home site and driveway). This is approximately 31% of the parcel size. Short term site impacts are confined to the construction envelope and immediate surroundings where trees will be removed, and root systems reduced. The pruning of tree crowns above 30% and reduction of root area may have a short term impact on those trees treated, including a reduction of growth, dieback, and potentially death. Every attempt has been made to recommend removing those identified trees likely to experience severe decline and death because of planned activities.

### Long Term Impacts

No significant long-term impacts to the forest ecosystem are anticipated due to the large amount of area designated as Scenic Easement, and the relatively small amount of area that will be occupied by the proposed residence and driveway. Approximately 6% of the parcel will be permanently altered by the project. The project as proposed is not likely to significantly reduce the availability of wildlife habitat over the long-term.

## **RECOMMENDATIONS**

### **Tree Removal**

Seven trees were identified for removal at this time

ID#	Diameter	Species	Remove
69	14	Monterey pine	x
70	14	Monterey pine	x
71	12	Monterey pine	x
77	8	Coast live oak	x
78	11	Coast live oak	x
79	8	Coast live oak	x
84	24	Monterey pine	x

### **Tree Planting**

Because it is recommended that trees are to be removed, replacement of removed trees is necessary. Trees should be planted in areas around the proposed structure and those areas with the greatest opening in the stand to allow for a minimum of competition and maximum sunlight. Replacement trees should be five gallon stock or larger, if available. Spacing between trees should be at least 8 feet. Because of the reduced the amount of space from construction, the site will become over crowded with planting if replaced on a 1:1 or 2:1 ratio, therefore, trees should be replaced at a 1:2 ratio (with two pines and two oaks) of five gallon or larger size on the remainder of the parcel. Occasional deep watering (more than two weeks apart) during the late spring, summer, and fall is recommended during the first two years after establishment. Grinding of stumps onsite is permissible.

## Tree Protection

The health of trees remaining 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. Fill placed within the drip-line may encourage the development of oak rot 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 principals 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) Native live oaks are not adapted to summer watering and may develop crown or root rot as a result. Do not regularly irrigate within the drip line of oaks. Native, locally adapted, drought resistant species are the most compatible with this goal.
- D) 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 February through May.
- E) Oak material greater than 3 inches in diameter remaining on site more than one month that is not cut and split into firewood should be covered with black plastic that is dug in securely around the pile. This will discourage 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 along 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 Protection Standards

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

- Trees located adjacent to the construction area shall be protected from damage by construction equipment using temporary fencing and through wrapping of trunks with protective materials such as hay bales, boards or straw wattles. Fencing shall consist of supported chain link, snowdrift, plastic mesh, or field fence.
- Fencing must not be attached to the tree but free standing and self-supporting with cross bracing. It shall be rigidly supported and stand a minimum of height of four feet above grade and placed to the farthest extent possible from the trees base to protect the area within the trees 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, and/or dumping of materials is not allowed adjacent to trees on the property especially within fenced areas.
- Fenced areas and the trunk protection materials shall remain in place in good functional condition during the entire construction period.

During grading and excavation activities:

- All trenching, grading or any other digging or soil removal expected to encounter tree roots shall be monitored by a qualified arborist or forester to ensure against drilling or cutting into or through major roots.
- 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 or footings located adjacent to any tree should be done by hand where practical and any roots greater than 3-inches diameter should be bridged or pruned appropriately.
- Any roots that must be cut should 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 are to be exposed to sound tissue and cut cleanly with a saw.

If at any time potentially significant roots are discovered:

- The arborist/forester is 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 negatively, 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 affects, such as hand digging, bridging or tunneling under roots, etc..

### **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. 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. 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.
- Type of pruning is determined by the size of 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 absolutely 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 remove the entire branch.



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 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 prior to 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 improvements area 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 in order 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. 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 in 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 in order to reduce the fire hazard.

Dead trees may be removed at the convenience of the owner.

5. Thinning: Trees less than six inches 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 which 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 wellbeing 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: In order to avoid further depletion of 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 to avoid 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 falls 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 removal of trees outside of the developed area if proposed.

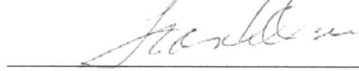
#### **Compliance**

It is further understood that failure to comply with this Plan will be considered as 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 sale of the property.

Report Prepared By:

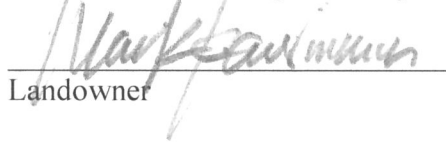


Frank Ono, SAF Forester #48004 and ISA Certified Arborist #536

April 24, 2018

Date

Recommendations Agreed to by landowner:



Landowner

Date

Forest Management Plan approved by:

\_\_\_\_\_  
Director of Planning

\_\_\_\_\_  
Date

## PHOTOGRAPHS



Two Pines to be retained #68 and #72 pines behind are to be removed #69, 70, and 71



P  
Pine #84 is to be removed

Pines to be removed #69, 70, and 71 and Small oaks behind are to be removed



Tree #73 may need pruning of lower limbs



APN 009-051-008  
Lot 19, Block 200 (3-C&T-41)

AF  
Lot 18, E

