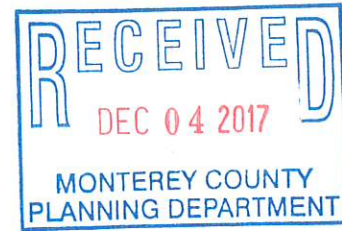


Exhibit D

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Tree Resource Assessment
2884 Lasauen Road
Pebble Beach, CA

L1B170454

Prepared for:

Advanced Language Systems

Prepared by:

Frank Ono
Urban Forester
Member Society of American Foresters #48004
ISA Certified Arborist #536
1213 Miles Avenue
Pacific Grove, CA 93950

September 22, 2017

Pin 170454

Owner:

Advanced Language Systems
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Rockville, Maryland 20852

Architect:

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Coarsegold, CA 92614

Monterey Bay Area Architect Managing Project:
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Forester and Arborist

Frank Ono, Member SAF #48004, ISA Certified Arborist #536
F.O. Consulting
1213 Miles Ave
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SUMMARY

Development is proposed for this site requiring removal and excavation near native trees on site. The project proposes approximately 2,859 sf (29.68 %) of a 9,630 sf site area to construct a single-family home and garage. 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 regarding trees on the project.

INTRODUCTION

This tree assessment/arborist report is prepared for Advanced Language Systems, Mr. Marat Akchurin, the owner of the property located at 2884 Lasauen Road, Pebble Beach CA by Frank Ono, Urban Forester and Certified Arborist (member Society of American Foresters #48004 and International Society of Arboriculture Certified Arborist #536) due to the proposed construction. The Greater Monterey Special Plan GMP section 3.5 identify native Coast live oak and Monterey pine trees as species requiring protection and special consideration for management.

PURPOSE AND GOAL

This Tree Assessment/Arborist report is prepared for this parcel due to proposed construction activities located at 2884 Lasauen Road, Pebble Beach CA. The purpose of the assessment is to determine what, if any, of the trees will be affected by the proposed project. Oak trees and Monterey pine trees are considered protected trees as defined by the 2010 County of Monterey, Greater Monterey Special Plan section 3.5.

The goal of this report is to protect and maintain the Greater Monterey Area and Del Monte Forest 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.

SITE DESCRIPTION

- 1) Assessor's Parcel Number: 007-181-021-000.
- 2) Location: 2884 Lasauen Road, Pebble Beach CA.
- 3) Parcel size: 9,600 Sq. Ft.
- 4) Existing Land Use: The parcel is zoned for residential use (MDR/B-6-D-RES).
- 5) Slope: The parcel is mildly sloped. Slopes range from 3% to 10%.
- 6) Soils: The parcel is located on soils classified by the Monterey County Soils report as Tangair fine sand 2 to 9 % slope soils. The soils report states, "This is a gently sloping and moderately sloping soil on partly dissected marine terraces. Tangair soils, but are neutral or mildly alkaline or have less than 8 percent concretions in the subsoil. Runoff is slow, and the erosion hazard is slight. This soil is used mostly for woodland, home sites, and golf courses. It has low productivity for Monterey Pine (site index averages about 45 to 50). The seedling mortality and plant competition are severe. The windthrow hazard and equipment limitation are moderate."
- 7) Vegetation: The vegetation on site is composed primarily of a few native Monterey pines and Oak understory. The site is developed and has ornamental planting.
- 8) Forest Condition and Health: The stand of trees and health are evaluated with the use of the residual trees combined with surrounding adjacent trees as a complete stand. The site is vacant and surrounding closed cone forest canopy is fragmented. Fragmentation is due to pines being removed for safety reasons and development.

BACKGROUND

Assessment focuses on incorporation of the preliminary location of site improvements coupled with consideration for the general goals of site improvement desired of the landowner. The study of individual trees determined treatments necessary to complete the project and meet the goals of the landowner. Trees within and immediately adjacent proposed development area were located, measured, inspected, flagged 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 vacant with existing structure on three sides. Previous trees have been removed on site; surrounding lots have had trees removed over time either due to disease or safety reasons. A permit was secured for a 33" diameter pine for the previous owner (documented in 2016) but it is unclear to me why the other oak trees were removed. The trees removed (they are located within or adjacent the building footprint) prior to my observation of the site, consists of eight trees:
 - Three (3) six" diameter oaks
 - One (1) 12", 12" 13" inch diameter multi stemmed oak.
 - Two (2) 8" diameter oaks
 - One (1) 17" diameter oak
 - One (1) 22" pine
- There is one Monterey pine (#298) remaining appearing in poor condition and one partially removed pine stem (#297). Both are within the proposed building footprint and will need removal.
- Remaining oaks are located scattered on the property which are to be retained with the exception of those within the building foot print. One oak, shown to remain, is in poor condition #280, it should be removed as it appears will fail in the short term.

CONCLUSION/PROJECT ASSESSMENT

The site sits in an area with a fragmented canopy and previous tree removal occurring. The remaining oaks that forest the property are considered in overall moderate (fair) condition and health. Eight trees have been removed and an additional three (3) trees must be removed to develop the site as drawn. The remaining tree removal would be of poor quality or smaller trees. Remaining trees are expected to survive when properly protected and monitored.

Site disturbance will occur during building construction. Short term site affects are confined to the construction envelope and immediate surroundings some trees may be trimmed and root systems reduced. The pruning of tree crowns above 30% and reduction of root area may have a short term effects on those trees treated, including a reduction of growth and potential limb dieback. No significant long term affects to the forest ecosystem are anticipated as this site is surrounded and conditioned by already developed residential

sites. The project as proposed is not likely to significantly reduce the availability of wildlife habitat over the long term. 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 for removal those trees likely to experience decline.

The removals were evaluated in the following areas for adverse environmental impacts:

- Soil erosion; slopes are mild, tree removals will not adversely affect soils
- 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 removal will not significantly increase ambient noise levels to the degree that a nuisance is anticipated to occur;
- Air Movement: The removal will not significantly reduce the ability of the existing vegetation to reduce wind velocities to the degree that a nuisance is anticipated to occur;
- Wildlife Habitat: The removal will not significantly reduce available habitat for wildlife existence and reproduction or result in the immigration of wildlife from adjacent or associated ecosystems;
- The trees are diseased, injured, in danger of falling too close to existing or proposed structures and likely to promote the spread of insects of disease.

RECOMMENDATIONS

Tree Removal

Remove Pine #298, Oak #280, and partial stem #297, due their condition or location to the proposed structure.

Replanting

The proposed tree removal governed by The Del Monte Forest Master Plan and Greater Monterey Area Special Plan, which requires a minimum of 1:1 tree replacement for protected native trees, unless otherwise determined that it will present an overcrowded unhealthy forest situation. Given the amount of available landscape area there may be inadequate room to meet these replacement requirements on this property thus creating an overcrowded situation. I would recommend replacement planting with five five-gallon or larger oaks and two five-gallon pines (which would be close to a 1:2 replacement ratio).

Tree Pruning

It is to be understood that the pruning of retained trees may be expected for this site, especially near building construction areas. Pruning will include trees with deadwood, minor structural defects or disease that must be compensated, and possibly vehicle or pedestrian clearance. 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. 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 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.

Tree Protection

Prior to the commencement of construction activities:

- Trees located adjacent to construction areas shall be protected from damage by construction equipment by the use of temporary fencing and through wrapping of trunks with protective materials.
- Fencing shall consist of chain link, snowdrift, plastic mesh, hay bales, or field fence. Existing fencing may also be used.
- Fencing must not be attached to the tree. It shall be free standing or self-supporting so as not to damage trees. Fencing shall be rigidly supported and shall stand a minimum of height of four feet above grade.
- Soil compaction, parking of vehicles or heavy equipment, stockpiling of construction materials, and/or dumping of materials should not be allowed adjacent to trees on the property especially within fenced areas.
- Fenced areas and the trunk protection materials must remain in place during the entire construction period.

During grading and excavation activities:

- All trenching, grading or any other digging or soil removal that is expected to encounter tree roots will be monitored by a qualified arborist or forester to ensure against drilling or cutting into or through major roots.
- The project arborist should be on site during excavation activities to direct any minor field adjustments that may be needed.
- Trenching for the retaining wall and driveway 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 should be exposed to sound tissue and cut cleanly with a saw.

If at any time potentially significant roots 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 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

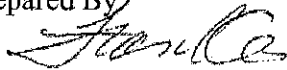
construction design approaches to minimize affects, such as hand digging, bridging or tunneling under roots, etc..

Best Management Practices to Observe (BMP)

The following best management practices must be adhered to:

- A) Tree service Contractors will verify animal or bird nesting prior to tree work. If nesting activity of migratory birds are found, work must stop and a wildlife biologist consulted before commencing work (the typical bird nesting season ranges from February 22 to August 1).
- B) 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 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.
- C) 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.
- D) Native live trees 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.
- E) 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.
- F) Tree material greater than 3 inches in diameter remaining on site more than one month that is not cut and split into firewood must be covered with thick clear plastic that is dug in securely around the pile to discourage infestation and dispersion of bark beetles.
- G) 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.
- H) 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.

Report Prepared By:



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

September 22, 2010

Date

TREE CHART

The following chart list trees located on the property. Those with ID numbers starting with S (i.e. S-1) are stumps of trees found removed prior to my assessment.

ID#	Diameter	Species	Condition	Remove	Comments
279	11	Coast live oak	Fair		
280	20	Coast live oak	Fair	X	Oak bark fungus, Termites
281	12	Coast live oak	Fair		Heavy lean
282	12	Coast live oak	Poor		Heavy lean, Dying crown
283	23	Monterey pine	Fair		
284	11	Coast live oak	Fair		Heavy lean
285	9	Coast live oak	Fair		
286	9	Coast live oak	Fair		
287	9	Coast live oak	Fair		
288	9	Coast live oak	Fair		Heavy lean
289	8	Coast live oak	Fair		
290	11	Coast live oak	Fair		
291	9	Coast live oak	Fair		Cork screw stem
292	13	Coast live oak	Fair		
293	15	Coast live oak	Fair		
294	8,9,13	Coast live oak	Fair		
295	12	Coast live oak	Fair		
296	20	Coast live oak	Fair		Beetles
297	40	Monterey pine	Dead	X	Topped
298	29	Monterey pine	Poor	X	Thinning crown, Beetles
299	9	Coast live oak	Poor		Intermediate, Thinning crown
300	11,15	Coast live oak	Fair		
197	9,9	Coast live oak	Fair		Heavy lean
198	12	Coast live oak	Fair		
199	15	Coast live oak	Fair		
S-1	6	Coast live oak			Removed
S-2	22	Monterey pine			Removed
S-3	8	Coast live oak			Removed
S-4	8	Coast live oak			Removed
S-5	6	Coast live oak			Removed
S-6	6	Coast live oak			Removed
S-7	12,12,13	Coast live oak			Removed
S-8	17	Coast live oak			Removed

PHOTOGRAPHS



Tree #298 and #297



Tree #280 has a decayed stem

#280



Previous tree removals

