CANYON VIEW ESTATES (TENTATIVE TRACT MAP 74650) (APNS 2826-020-012, 2826-020-013 AND 2826-020-061)

Oak Tree Survey Report

Prepared for
Jemstreet Properties
1435 Reynolds Court
Thousand Oaks, California 91362
Contact: Mr. Rick Coop

September 2017

ESA

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CANYON VIEW ESTATES (APNS: 2826-020-012, 2826-020-013 AND 2826-020-061) OAKTREE SURVEY REPORT

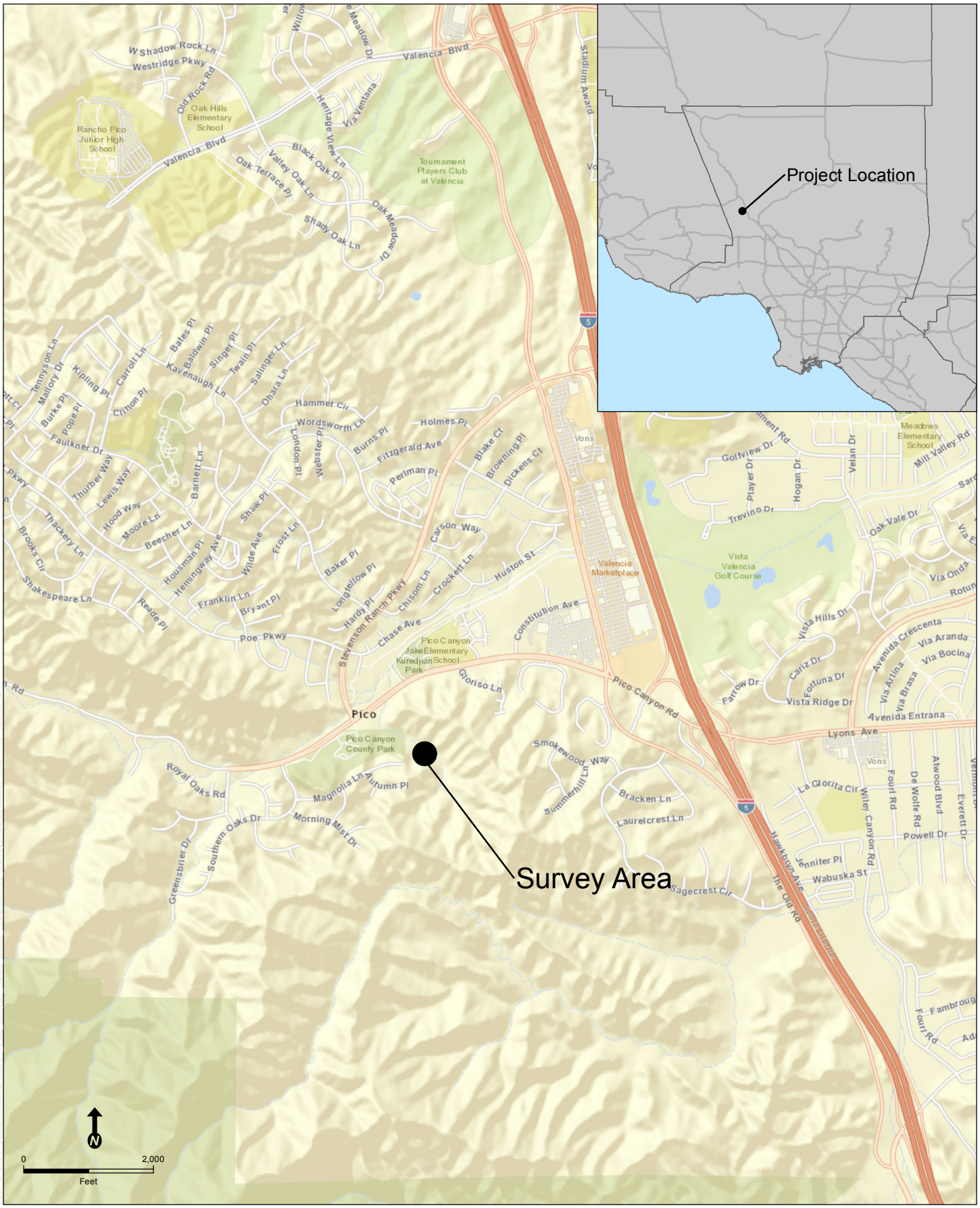
Introduction

A survey of oak trees was conducted at several parcels along Pico Canyon Road, Los Angeles County (County), California (APNs: 2826-020-012, 2826-020-013 and 2826-020-061). This report includes the results of the oak tree survey and has been prepared in accordance with the County of Los Angeles Oak Tree Ordinance (Ordinance), Section 22.56.2050 – 22.56.2260 of the Los Angeles County Municipal Code. The Ordinance stipulates that "unless otherwise provided in Section 22.56.2070, a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.56.2180, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained as provided by this part 16" (Section 22.56.2060). For the purposes of this report, any oak tree of the appropriate size, as defined in the Ordinance, will be referred to as an oak tree.

This report indicates the location, size, type and condition of all oak trees surveyed within and immediately adjacent to the property, and identifies which trees will be avoided, encroached and removed as a result of the proposed Canyon View Estates Project (Project). Mitigation measures are identified, including a plan that contains recommended measures for replacing the trees that would be removed and the preservation of trees that would be avoided and/or encroached during Project activities.

Project Description and Location

The approximately 95-acre Canyon View Estates Project is a proposed 37-lot residential subdivision to propose on APN 2826-020-012, 2826-020-013 and 2826-020-061 on Pico Canyon Road. The proposed Project will include the construction of single-family residences within a currently undeveloped property. The property is located within an unincorporated portion of Los Angeles County within the Santa Susana Mountains; it is bound immediately to the north, east and west by residential development and a public park; and south of the project site is undeveloped open space. Land use in the general vicinity consists primarily of open space, heavily fragmented by residential development and roadways. Pico Canyon Road is located approximately 1,000 feet to the north of the property (**Figure 1**).



SOURCE: ESRI 2016

Pico Canyon Road Tree Survey . 160731

Figure 1

Project Location

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Site Conditions

The southwest portion of the Project site has been previously burned but has recovered with a variety of chaparral plant species. The northern portion of the Project site is characterized as disturbed coastal sage scrub/chaparral vegetation and supports two small clusters of coast live oak trees (*Quercus agrifolia*) and a few scattered scrub oak plants (*Quercus berberidifolia*). Topography slopes downward from south to north from approximately 1550 feet above mean sea level (amsl) to approximately 1450 feet amsl.

Methods

Oak Tree Survey

The oak tree survey evaluated the avoidance, encroachment and removal of oak trees protected in accordance with 22.56.2050 – 22.56.2260 of the of the Los Angeles County Municipal Code as a result of the proposed development, which includes all oak trees (*Quercus* species) with a trunk diameter of 8-inches or greater; or the combined diameter of the two (2) largest trunks of 12-inches or greater.

Certified Arborist Greg Ainsworth (ISA Cert # WE_7473A) and biologist Robert Sweet conducted the oak tree survey of all oak trees located within the property on November 11, 2016 and on February 9, 2017. The survey was conducted under the supervision of Mr. Ainsworth and Daryl Koutnik, the latter as project manager. The trunk of each tree was recorded with a Trimble Geo XH 6000 Series Global Positioning System (GPS) equipped with a data dictionary used to record the tree's attributes. Oak trees located within the property were tagged with a one-inch round metal identification tag, generally affixed to the north side of the trunk. Trees located offsite, within adjacent residential properties were not tagged; physical data and tree ratings for these trees were estimated. The following data was collected for each tree:

Physical Characteristics

- DBH – measured from the base of the tree using a forester's diameter-equivalent tape.
- Canopy spread: The distance of the lowest living branch to the ground and the canopy spread from the trunk to the dripline in eight (8) directions (N, NE, E, SE, S, SW, W, NW).
- Height – estimated at appropriate distance from the tree.
- Balance and symmetry of the tree based on the crown radius measurements and whether or not the tree leans or is unstable.

Physical Condition

- Identification of damage caused by pathogens or insect pests, by natural causes such as lightning, or by human activity.
- Evaluation of vigor based on such parameters as amount of new growth, leaf color, abnormal bark, dead wood, evidence of wilt, excessive necrosis or leaf chlorosis, thinning of crown, etc.

- Assessment of the overall health of the tree based on the evaluation of vigor, presence of damage, and comparison to the typical archetype tree of the same species.

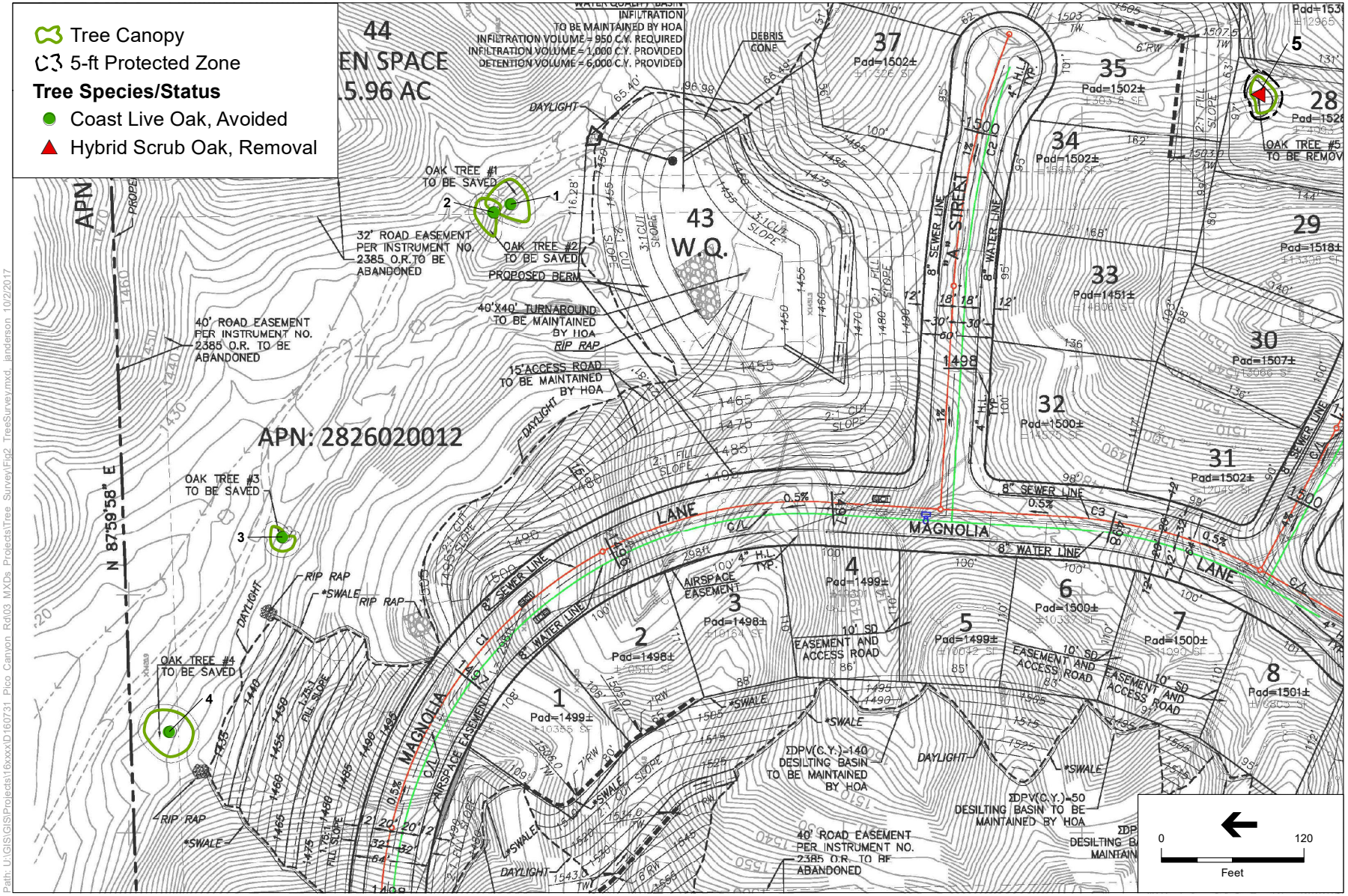
Rating

For each tree, a subjective alphabetical rank of "A" through "F" was assigned for each of four (4) categories: vigor, overall health, aesthetic value, and balance. Ranks were based on the criteria described below:

- "A" = Very Healthy/Excellent: A healthy and vigorous tree characteristic of its species and reasonably free of any visible signs of stress, disease, or pest infestation. With regards to balance and aesthetics, trunks are straight and canopies well balanced and the tree exemplifies the ideal archetype for the species.
- "B" = Healthy/Good: A healthy and vigorous tree with minor visible signs of stress, disease, and/or pest infestation. Some maintenance measures may need to be implemented, such as pruning of dead wood or broken branches. Tree may lean slightly, canopies may not be evenly balanced, or the tree may otherwise be marginally challenged aesthetically.
- "C" = Average Health/Fair: Although healthy in overall appearance, there is abnormal amount of stress or disease/insect infestation, and a substantial amount of maintenance may be needed. The trunk may be growing at a more substantial angle or the canopy may have "holes" or be further out of balance.
- "D" = Dying/Poor: A tree that may be exhibiting a substantial amount of stress, disease, or insect damage than what the amount that is expected for the species. The tree may be in a state of rapid decline, and may show various signs of dieback, necrosis, or other symptoms caused by pathogens or insect pests. The tree may lean significantly and the canopy is far out of balance.
- "F" = Dead/Very Poor: This tree has no foliage and exhibits no sign of life or vigor. Tree may be prone on the ground or otherwise severely aesthetically compromised.

Mapping

All surveyed trees were mapped in Arc GIS over the provided site plan to determine whether each would be avoided, encroached or removed as a result of Project activities; mapped trees are provided in **Figure 2**. The trunk location within the figure is based on the GPS waypoint location that was recorded from one (1) side of the tree's trunk by the arborist. Canopy spreads were based on approximated measurements in the field, which have been digitized based on the field measurements. Encroachment is defined as construction taking place within the protected zone (area within and at least five feet outside of the dripline) of an oak tree, and the protected zone is also displayed around each tree canopy in Figure 2.



SOURCE: ESRI

Pico Canyon Road Tree Survey . 160731

Figure 2

Tree Survey

Results

Four (4) coast live oak trees and one hybrid scrub oak[1] were surveyed within the property as being protected under the County's oak tree ordinance, and the location of each is shown in Figure 2 (trees 1-5). Based on review of the provided grading plan, it has been determined that all four of the coast live oak trees will be avoided by construction but the one hybrid scrub oak (Tree #5) will be removed as part of the construction activities. **Table 1** lists the trees surveyed and the data collected for each tree (e.g., trunk diameter, height, canopy spread, health grades, etc.) and a photograph of each one are below the table.

TABLE 1
OAK TREE SURVEY DATA

	Tree #1	Tree #2	Tree #3	Tree #4	Tree #5
Species	Coast Live Oak	Coast Live Oak	Coast Live Oak	Coast Live Oak	Hybrid Scrub Oak
Project Impacts	Avoided	Avoided	Avoided	Avoided	Removed
Trunk Diameter (DBH)	13.8, 12.9, 8.0	8.3, 5.4	15.5	18.7, 13.5	6.1, 5.9
Height	35	20	25	40	18
Canopy Spread (N)	12	16	10	21	16
Distance to Ground (N)	1	3	6	3	9
Canopy Spread (NW)	12	15	12	18	9
Distance to Ground (NW)	2	1	3	3	9
Canopy Spread (W)	12	20	12	21	6
Distance to Ground (W)	1	1	2	1	8
Canopy Spread (SW)	20	4	12	21	5
Distance to Ground (SW)	1	2	1	1	8
Canopy Spread (S)	15	4	10	20	15
Distance to Ground (S)	6	2	1	1	5
Canopy Spread (SE)	16	8	2	18	16
Distance to Ground (SE)	3	6	4	1	2
Canopy Spread (E)	21	10	5	18	15
Distance to Ground (E)	4	3	3	1	5
Canopy Spread (NE)	19	16	12	22	13
Distance to Ground (NE)	2	1	5	1	3
Ailments	weak crotch, exfoliating bark, leaf chlorosis	leaf chlorosis, insect damage	fire scar, exfoliating bark, excessive leaf drop, leaf chlorosis, broken/dead limbs	excessive leaf drop, leaf chlorosis, broken/dead limbs	fruiting bodies, insect damage
Health	C	B	C	C	B
Vigor	B	B	D	C	B
Aesthetics	C	C	D	C	B
Balance	C	C	C	B	C

[1] The scrub oak has been identified as a hybrid of *Quercus john-tuckeri* by Andrew Sanders at the University of California at Riverside. The other parent is speculated to be *Q. berberidifolia.*

Comments	trunks separate low		heavy chlorosis, leaf drop throughout	horizontal boring insect hole rows

Photograph 1 (NW): Depicts Oak Tree #1 (right) and Oak Tree #2 (left) in the northeastern portion of APN 282-602-0012.

Photograph 2 (NW): Depicts Oak Tree #3 in the northern portion of APN 282-602-0012.

Photograph 3 (W): Depicts Oak Tree #4 in the northern boundary of APN 282-602-0012.

Photograph 4 (SW): Depicts Oak Tree #5 in the southern boundary of APN 282-602-0012.

Tree Management and Preservation Program

Project construction activities will result in the removal of one hybrid scrub oak tree. The construction also has the potential to negatively affect all four of the coast live oak trees that would be preserved on the property. Project related activities that may negatively affect the root system of preserved trees includes excavation, trenching, soil compaction, change of grade and site drainage, pruning, mechanical damage from construction equipment, landscaping, and irrigation. The protection measures outlined below shall be implemented to ensure that all preserved trees within or adjacent to the property will be protected and preserved during construction activities, as well as in perpetuity following completion of construction activities.

Protective Fencing

Equipment damage to limbs, trunks, and roots of all remaining trees should be avoided during Project construction and development. Even slight trunk injuries can result in susceptibility to long-term pathogenic maladies.

- Protective fencing not less than four (4) feet in height should be placed at the limits of the protective zone of all trees within or extending into the property. The protective fencing should be inspected by a biologist prior to grading or ground disturbing activities, and should be maintained and remain in place until construction is completed. Oak trees to the north of Tree 4 are located entirely within the adjacent property; therefore, installation of fencing will not be required for those oak trees.
- Fencing should remain intact until a certified arborist verifies that it can be removed.

Grading Restrictions Near Trees

Care must be taken to limit grade changes near the protective zone of a tree. Grade changes near the protective zone can lead to plant stress from oxygen deprivation or result in root fungus at the root collar of the tree. Minor grade changes further from the trunk are not as critical but can negatively affect the health of the tree if not carefully monitored by a qualified biologist.

- The grade should not be lowered or raised within the protective zone of an oak tree without the approval from the County. A certified arborist should supervise all excavation or grading approved within the protective zone of an oak tree.

Trenching and Excavation

- Trenching, excavation, or clearance of vegetation within the protective zone of an oak tree should be accomplished by the use of hand tools or small hand-held power tools, and should be monitored by a certified arborist. If major roots are encountered during grading activities (including trenching, excavation, and other related ground disturbance activities) a certified arborist should be notified to provide recommendations for pruning or avoidance measures. Any major roots encountered should be conserved to the greatest extent possible and treated as recommended by the arborist.

- No utility trenches should be routed within the protective zone of an oak tree unless no feasible alternative locations are available, and should be determined in coordination with the County.

Equipment Storage

- No storage of equipment, supplies, vehicles, or debris should be allowed within the protective zone of an oak tree to avoid soil compaction.
- No dumping of construction wastewater, paint, stucco, concrete, or any other clean-up waste should occur within the protective zone of an oak tree.
- No temporary structures should be placed within the protective zone of an oak tree.

Pruning

Healthy trees, if not maintained, often grow beyond their ability to support themselves and fail at their most naturally occurring weak point. This is typically at a branch union at or near the main crotch of the tree. Weight-reduction pruning and/or cabling is often important to preserve the aesthetics and overall longevity of these trees.

- Pruning of oak trees should be accomplished in accordance with the guidelines published by the National Arborist Association. In no case should more than 20 percent of the tree canopy be removed. After pruning, installation of support cables to prevent future main crotch failures may be necessary based on the determination of a certified arborist.
- Branches that could be injured by vehicles or that interfere with construction should be pruned to the satisfaction of a certified arborist.

Frequency of Watering Around Oak Trees

Care should be taken to avoid placing any irrigation devices within watering distance of the protective zone of oak trees. Too much moisture near the base of an oak tree is generally believed to be the leading cause of death of these trees in urban settings, and oak root fungus can occur as a result of over watering. Oak trees survive and thrive on annual rainfall alone and generally do not require supplemental irrigation except during periods of extreme drought or for establishment of newly planted trees (i.e., replacement trees).

- Irrigation water should not reach within 15 feet of any oak trunk.
- Neither grass nor ground covers should be planted under the canopy of oak trees.

Construction Monitoring

- A certified arborist should be present for on-site construction and grading activities occurring within 10 feet of the protected zone of all oak trees. If any major roots larger than one (1) inch in diameter are encountered during construction activities, the arborist should be notified to provide recommendations to avoid damaging roots, so that the health of the tree will not be compromised.

Post-Construction Monitoring and Reporting

- A certified arborist should assess the health and overall condition of all oak trees that have been encroached by the Project annually for two (2) years following the completion of the Project. The condition of the trees should be compared with the data provided in this report to determine if the Project may have had a negative effect on the health or physical structure of the tree. A monitoring report shall be prepared by a certified arborist and submitted to the County within one (1) month following the completion of each annual post-construction monitoring event.