

601 and 603 Bohlig Rd. Arborist Report

Prepared for Camille Neagu
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Background

In January of 2017, I was contacted by Camille Neagu. She asked for a Protected Tree Report per the requirements of the City of Glendale planning department. She intended to construct a single family residence on a vacant lot and to remodel an existing single family residence on an adjacent parcel.

I met with Camille's mother Elena at the subject property on January 18, 2017 at noon to collect the data for the 2017 report. She showed me the property boundaries and talked about the goal of the project. I prepared a preliminary report on January 22, 2017 that informed the design of the project.

On September 19, 2017, architect Alen Malekian sent me copies of the plans for the proposed construction activity. I updated this report to reflect the proposed plans. On February 13, 2018, Alen sent me an updated version of the plans, and I updated the report for a second time.

On May 30, 2018, Anet Minasian sent me a new version of the plans where the garage for the proposed second structure was relocated to having frontage along Bohlig Road instead of Melwood Drive. I updated this report to show the anticipated impacts that the proposed construction would have on the trees.

On July 18, 2018, this report was updated to show that Tree 16 will be retained in the landscape. The tree protection fencing was modified to contain most of its dripline.

On September 9, 2019, I was asked to update the report again to reflect the changes in the condition of the trees and the change of the footprint of the proposed buildings. I visited the property on September 10, 2019 at 2pm to collect data for this report. I observed that four of the subject trees had been removed between 2017 and 2019, but for consistency with the numbering system of my 2017 report, I retained entries for the removed trees.

On September 19, 2019, I was asked to update the report again to reflect a change in the proposed deck at 601 Bohlig. Instead of building an extension of the concrete deck that encroaches into Tree 7, the deck will be cantilevered over the soil within the tree's dripline, thereby avoiding injuring the tree's roots. This most recent version of the report reflects this change.

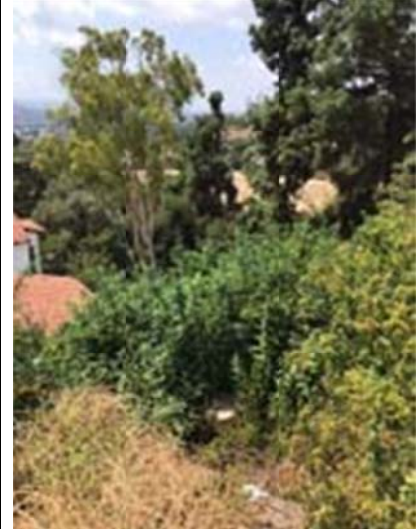


Project Description

A single family residence will be constructed on the vacant lot abutting Melwood Drive, and the existing single family residence on Bohlig will be demolished and replaced. The lot is 23,866 square feet, and the existing structure is 2,013 square feet. The lot will be subdivided into Lot 1 (601 Bohlig) with an area of 13,569 square feet and Lot 2 (603 Bohlig) with an area of 10,297 square feet. The new proposed structure on Lot 2 will have a square footage of approximately 2,529 square feet. The proposed new structure on Lot 1 will have approximately 4,344 square feet of area. Substantial grading will be necessary to construct the proposed new residences, so several trees must be removed.

The site is a hillside lot in the Rossmoyne Historic District of Glendale. The topography of the subject property is steeply sloped downward to the northwest.

Of the eleven oak trees in this report, six are large enough to be protected by the City of Glendale Indigenous Tree Protection Ordinance. Three of the protected trees in this report are growing on adjacent parcels of land. Four oaks are less than 6" in diameter, so they are not currently protected by the ordinance. No protected trees are proposed for removal.

Subject Trees

	<p>Tree 1 <i>Schinus molle</i> – California Pepper Tree</p> <p>This tree was removed prior to my site visit. It was not protected by ordinance.</p>
	<p>Tree OP2 <i>Eucalyptus globulus</i> – Blue Gum Eucalyptus</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. What remains are stump sprouts from the trunk of a former mature Eucalyptus tree that was removed several years ago. It is growing on the neighboring property to the northeast.</p>
	<p>Tree OP3 <i>Heteromeles arbutifolia</i> – Toyon</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It is unlikely to be impacted by the proposed construction. It is growing on the neighboring property to the northeast.</p>



Tree 4

Quercus agrifolia – Coast Live Oak

This multi-stem oak tree is growing on the hillside above the existing structure on the subject property. The foliage appears healthy, and this naturally-occurring tree only has the common defect of narrow branch unions. No mitigation action is necessary.

Grading for a retaining wall will encroach upon the drip line of this tree at the bottom of the hill. Although some of the soil from within the drip line of the tree will be removed, the proposed grading is unlikely to significantly affect the health of the tree because the linear distance from the trunk is much further than the horizontal distance shown on the map.

This tree will not likely be significantly impacted by the proposed construction project if the tree protection fencing is not crossed.



Tree 5

Malosma laurina – Sumac

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will not likely be impacted by the proposed construction.



Tree OP6

Olea europaea – Olive Tree

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will not likely be impacted by the proposed construction. It is growing along the property line with the neighboring property to the northeast.



Tree 7


Quercus agrifolia – Coast Live Oak

This protected mature Coast Live Oak is in very good condition. It is growing on the hillside to the west of the existing structure, slightly below the finished grade of the driveway. It has a full, healthy canopy with no apparent defects.

This tree is intended for preservation through the anticipated construction. No treatment is necessary for this tree at this time. Along the eastern half of the canopy, the proposed tree protection fencing will follow the path of an existing fence on site.

A retaining wall will be constructed along the southwestern quadrant of the dripline to retain the soil for the house proposed to be built at 603 Bohlig. According to the soils report, the soil in which Tree 7 is growing consists of loose fill that was pushed over the top of the hill when the pad for the existing structure was being constructed many years ago. As a result, the soil requires substantial structural support. The retaining wall is a necessity for the safety of the proposed structures. The proposed footprint of the retaining wall is the least damaging to Tree 7 while still allowing the reasonable development of the subject property. Every effort will be made to preserve the remainder of its root system, but these root cuts are unavoidable if the proposed new structures and retaining wall will be constructed.

The impact to the most important roots of Tree 7 will be minimal. Since the tree is growing on a slope, it likely developed tensile buttress roots to apply tension force to hold the tree up. These roots form on the uphill (east) side of the trunk. A concrete deck is proposed in this area, cantilevered over natural grade within the dripline of Tree 7. The footprint of the house will remain outside the drip line of the tree. Anticipated root cutting for the footprint of the house is minimal. All excavation for the proposed deck should be performed with hand tools only within 5 feet of the drip line of Tree 7.

	<p>Tree 7 continued...</p> <p>If roots are encountered when excavating within 5 feet of the drip line, the project arborist should decide whether they should be preserved or may be severed. If it is feasible, the locations of the support posts should be adjusted to avoid any large roots that are uncovered. If roots must be severed, they should be cut cleanly with a sharp cutting tool, minimizing the cross sectional area of heartwood exposed.</p> <p>The branches of Tree 7 over the proposed house to the southwest and the patio to the east will be pruned for minimum vertical clearance. Pruning should be performed by a crew directly supervised by a Certified Arborist and should only remove the minimum amount of foliage necessary to achieve the clearance objective.</p> <p>Although some roots and branches of Tree 7 will be cut, the tree has a good chance of being able to tolerate the impacts of construction.</p>
	<p>Tree 8 <i>Jacaranda mimosifolia</i> – Mimosa Tree</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will not likely be impacted by the proposed construction.</p> <p>In the past, it was pruned very heavily on the western trunk, but it has since responded well and is growing vigorously. No action is necessary at this time. It can be allowed to grow on site.</p>



Tree 9

Olea europaea – Olive Tree

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will not likely be impacted by the proposed construction.

There is a prevailing lean to the west that is currently not problematic. A branch with a diameter of approximately 4” broke out of the upper canopy a few years ago, presumably in a windstorm. Since then, the tree has produced substantial response growth. No mitigation action is necessary at this time.



Tree OP10

Pinus canariensis – Canary Island Pine

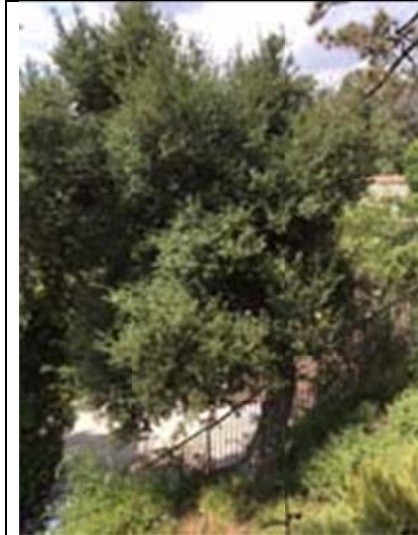
This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It is dead. Since it is growing on the neighboring property to the north, it will not be removed as part of this project. I recommend the neighbor remove the tree.



Tree OP11

Pinus canariensis – Canary Island Pine

This tree was removed prior to my September 10, 2019 site visit. It was not protected by the City of Glendale Indigenous Tree Protection Ordinance.



Tree OP12

Quercus agrifolia – Coast Live Oak

This oak tree is growing on the neighboring property to the north. Due to its distance from the house, it is unlikely to be impacted by the proposed construction.

The foliage appears healthy. The whole tree has a prevailing lean to the west, but no mitigation action is necessary. Coast Live Oaks growing on hillsides are able to tolerate a substantial amount of cantilevered crown; this tree has an improbable likelihood of whole-tree failure within the next four years.



Tree OP13

Ficus microcarpa – Indian Laurel Fig

This hedge of *Ficus* trees was planted with the intention of giving a privacy screen to the patio of the neighbor to the north. They appear to be experiencing moderate water stress, and they would benefit from irrigation.

These trees are growing on the neighbor's property and are not protected by the City of Glendale Indigenous Tree Protection Ordinance. The tree matrix on page 18 displays trunk measurements for the trunks along the hedge row in order from east to west.



Tree OP14

Quercus agrifolia – Coast Live Oak

This oak tree is growing on the neighboring property to the north. It is showing signs of bark borer damage. There is evidence of dark frass recently deposited along the outer layer of bark on the lower trunk. There is a prevailing lean to the west, but it does not appear to pose an elevated risk in the landscape.

The bark borer infestation should be monitored, but no mitigation action is recommended at this time. If the proposed tree protection fencing is not crossed, this tree is not likely to be impacted by construction activity.



Tree OP15
Ulmus parvifolia – Chinese Elm

This tree is growing on the neighboring property to the north. It is not protected by the City of Glendale Indigenous Tree Protection Ordinance. Its canopy is partially suppressed by the neighboring oak to the east, but the amount of canopy cantilever is not problematic at this time.

It shows evidence of Chinese Elm anthracnose canker. This is a target-canker that prevents annual rings from completing the deposition of a protective barrier to cover the wound created by the fungus. At this time, there is no need to take action to mitigate this condition. Chinese Elm anthracnose fungus is common for this species. If the target canker becomes larger within the next five years, the tree may be considered for removal. Otherwise, it can be retained in the landscape.



Tree 16
Quercus agrifolia – Coast Live Oak

This tree is growing next to an old stone wall growing along the northern property line. The canopy is dense and healthy. I did not observe any defects in this tree.

This tree will be retained through construction. A retaining wall will be constructed along the eastern edge of its drip line, possibly impacting some of its roots. Like with Tree 7, these roots are on the uphill side, so they are more important for the structural stability of the tree. Excavation for the retaining wall will take place outside the drip line, so the amount of impact to the roots will likely be low.

The proposed retaining wall is necessary because the soil on this western slope is comprised of loosely packed fill with the potential to slide down the slope.

If the proposed tree protection fencing is not crossed, the tree will be likely to survive construction activity.



Tree 17

Washingtonia robusta – Mexican Fan Palm

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will be removed because it is growing within the footprint of the grading activity necessary to construct the proposed retaining wall to the east.



Tree 18

Jacaranda mimosifolia – Mimosa Tree

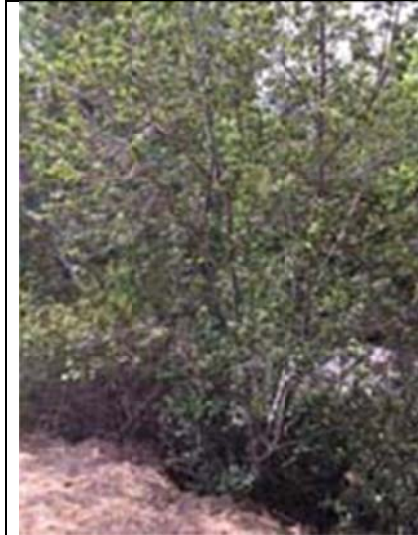
This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will be removed because it is growing within the footprint of the grading activity necessary to construct the proposed retaining wall to the east.



Tree 19

Quercus agrifolia – Coast Live Oak

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance because it is smaller than the minimum protected size of 6" DBH. This tree is proposed for removal because it is within a proposed area of grading for Lot 2.



Tree 20

Prunus ilicifolia – Holly Leaf Cherry

This species has many visual characteristics of the protected Coast Live Oak, but it is not the protected species. Its leaves do not have fine hairs underneath, it produces small inedible cherries, and it has slightly different-looking bark. This species is often confused with the protected Coast Live Oak.

This tree will be removed because it is within a proposed area of grading for Lot 2.



Tree 21

Pinus torreyana – Torrey Pine

This tree was removed prior to my September 10, 2019 site visit. It was not a protected tree.



Tree 22

Quercus agrifolia – Coast Live Oak

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance because it is smaller than the minimum of 6” DBH. It is showing signs of drought stress, but there is no need to take action to mitigate it at this time.

There is evidence of moderately severe sunburn damage on the upper side of the trunk. This sunburn is likely a result of the neighboring Tree 23 dying – Tree 22 subsequently experienced an increase in solar exposure.

This tree will be removed because it is growing within the footprint of the proposed retaining wall.



Tree 23

Quercus agrifolia – Coast Live Oak

This was removed prior to my September 10, 2019 site visit. As shown in my 2017 report, it was dead in 2017 and was recommended for removal. Prior to its removal, it was larger than 6 inches in diameter, so it was protected by the City of Glendale Indigenous Tree Protection Ordinance.



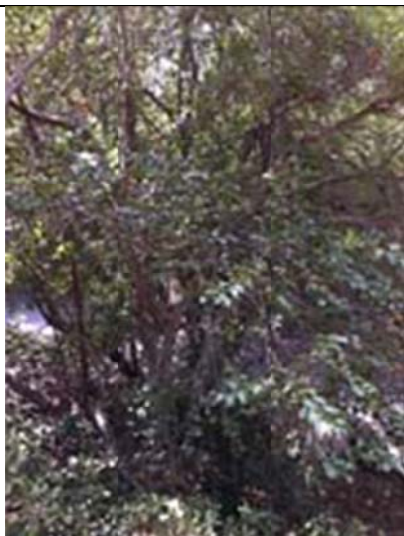
Tree 24

Quercus agrifolia – Coast Live Oak

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance because it is smaller than the minimum of 6” DBH. It is showing signs of drought stress, but there is no need to take action to mitigate it at this time.

This tree appears to have been suppressed by the neighboring trees to the east. It may increase its growth rate now that Tree 23 has been removed and it has more space to grow.

This tree will be removed because it is growing within the footprint of the proposed grading activity on Lot 2.



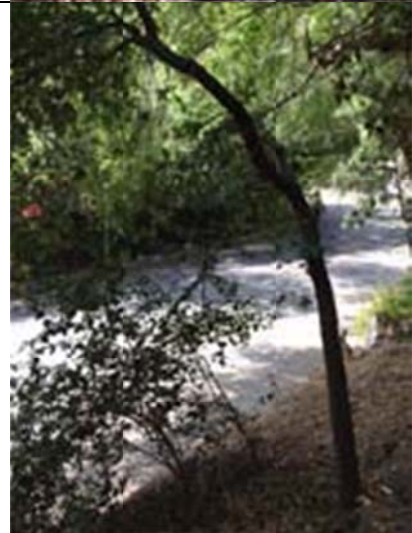




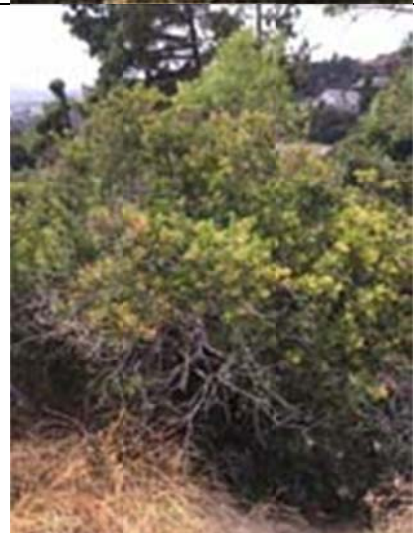
Tree 25

Quercus agrifolia – Coast Live Oak

This tree is protected by the City of Glendale Indigenous Tree protection ordinance. It is reasonably healthy, but it appears to have a history of being partially suppressed by the neighboring trees.

This tree will be retained in the landscape. An access staircase will be built outside the drip line of this tree. If the proposed tree protection fencing is not crossed, then this tree will not likely be negatively impacted by the proposed construction project.

	<p>Tree 26 <i>Pittosporum undulatum</i> – Victorian Box</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. This tree will be removed because it is growing within the footprint of the proposed grading activity on Lot 2.</p>
	<p>Tree 27 <i>Jacaranda mimosifolia</i> – Mimosa Tree</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. This tree will be removed because it is growing within the footprint of the proposed access staircase for the residence on Lot 2.</p>
	<p>Tree 28 <i>Quercus agrifolia</i> – Coast Live Oak</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance because it is smaller than the minimum of 6” DBH.</p> <p>This tree will be removed because it is growing within the footprint of the proposed grading activity on Lot 2.</p>

	<p>Tree OP29 <i>Jacaranda mimosifolia</i> – Mimosa Tree</p> <p>This tree is growing on the property of the neighbor to the southwest. It is not protected by the City of Glendale Indigenous Tree Protection Ordinance.</p> <p>It will not likely be impacted by construction activity if the proposed tree protection fencing is not crossed.</p>
	<p>Tree OP30 <i>Eucalyptus globulus</i> – Blue Gum Eucalyptus</p> <p>This tree is growing on the property of the neighbor to the southwest. It is not protected by the City of Glendale Indigenous Tree Protection Ordinance.</p> <p>It will not likely be impacted by construction activity if the proposed tree protection fencing is not crossed.</p>
	<p>Tree 31 <i>Heteromeles arbutifolia</i> – Toyon</p> <p>This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will be removed because it is growing within the footprint of the proposed driveway.</p>



Tree 32

Jacaranda mimosifolia – *Mimosa Tree*

This tree is not protected by the City of Glendale Indigenous Tree Protection Ordinance. It will be removed because it is growing within the area proposed for re-grading.



Tree 33

Prunus ilicifolia – Holly Leaf Cherry

This species has many visual characteristics of the protected Coast Live Oak, but it is not the protected species. Its leaves do not have fine hairs underneath, it produces small inedible cherries, and it has slightly different-looking bark. This species is often confused with the protected Coast Live Oak.

This tree will be removed because it is growing within the footprint of the proposed grading activity on Lot 2.

Protected Tree Matrix

Tree #	Tag	Species	Common Name	DBH	Height	Spread	Condition	Treatment	Natural?	Rating	Protected?	Remove?
1	-	<i>Schinus molle</i>	California Pepper Tree	-	-	-	REMOVED	-	-	-	-	-
OP2	no tag	<i>Eucalyptus globulus</i>	Blue Gum Eucalyptus	multi-stem	10'	15'	stump sprouts	no action	Yes	C	No	No
OP3	no tag	<i>Heteromeles arbutifolia</i>	Toyon	multi-stem	12'	20'	healthy	no action	Yes	A	No	No
OP4	5101	<i>Quercus agrifolia</i>	Coast Live Oak	9", 10", 10"	20'	20'	healthy, past topping	no action	Yes	A	Yes	No
5	5102	<i>Moloesma laurina</i>	Sunac	multi-stem	18'	25'	healthy	no action	Yes	A	No	No
OP6	no tag	<i>Olea europaea</i>	Olive Tree	multi-stem	18'	18'	healthy	no action	No	A	No	No
7	5103	<i>Quercus agrifolia</i>	Coast Live Oak	11", 22"	35'	45'	minor woodpecker damage	no action	Yes	A-	Yes	No
8	5104	<i>Jacaranda mimosifolia</i>	Mimosa Tree	7	15'	15'	healthy, minor competition	no action	No	B	No	No
9	5105	<i>Olea europaea</i>	Olive Tree	7", 8", 10"	15'	15'	asymmetric canopy, old tearout wound	no action	No	B	No	No
OP10	no tag	<i>Pinus canariensis</i>	Canary Island Pine	-	~27"	40'	dead	ask neighbor to remove	No	C	No	No
OP11	-	<i>Pinus canariensis</i>	Canary Island Pine	-	-	-	REMOVED	-	-	-	-	-
OP12	5106	<i>Quercus agrifolia</i>	Coast Live Oak	19"	30'	20'	leaning slightly, healthy	no action	Yes	A-	Yes	No
OP13	no tag	<i>Ficus microcarpa</i>	Indian Laurel Fig	Appx 6", 4", 5", 4", 6", 4", 6", 4", 7", 7"	30'	20'	overplanted, drought stressed	no action	No	B	No	No
OP14	no tag	<i>Quercus agrifolia</i>	Coast Live Oak	13", 16"	30'	40'	bark borer damage, drought stress	no action	Yes	C	Yes	No
OP15	no tag	<i>Ulmus parvifolia</i>	Chinese Elm	10", 11"	25'	30'	chinese elm anthracnose	no action	Yes	B	No	No
16	5107	<i>Quercus agrifolia</i>	Coast Live Oak	10", 10"	30'	25'	healthy	no action	Yes	A	Yes	No
17	5108	<i>Washingtonia robusta</i>	Mexican Fan Palm	12"	20'	5'	drought stressed	remove	Yes	B	No	Yes
18	5109	<i>Jacaranda mimosifolia</i>	Mimosa Tree	7", 8"	20'	20'	healthy, leaning	remove	Yes	B	No	Yes
19	5110	<i>Quercus agrifolia</i>	Coast Live Oak	5.5"	15'	10'	drought stressed	remove	Yes	C	No, under 6"	Yes
20	5111	<i>Prunus ilicifolia</i>	Holly Leaf Cherry	4", 3", 2"	15'	15'	poor root anchorage	remove	Yes	C	No	Yes
21	-	<i>Pinus torreyana</i>	Torrey Pine	-	-	-	REMOVED	-	-	-	-	-
22	5112	<i>Quercus agrifolia</i>	Coast Live Oak	5.5"	25'	25'	leaning, sunburn, bark beetles	remove	Yes	C	No, under 6"	Yes
23	-	<i>Quercus agrifolia</i>	Coast Live Oak	-	-	-	REMOVED	-	-	-	-	-
24	5113	<i>Quercus agrifolia</i>	Coast Live Oak	5"	15'	10'	suppressed by neighbors	remove	Yes	B	No, under 6"	Yes
25	5114	<i>Quercus agrifolia</i>	Coast Live Oak	6.5"	20'	15'	minor suppression from neighbors	no action	Yes	A-	Yes	No
26	5115	<i>Pitiosporum undulatum</i>	Victorian Box	5" 7" 8"	40'	30'	healthy	remove	Yes	B	No	Yes
27	5116	<i>Jacaranda mimosifolia</i>	Mimosa Tree	7", 12", 12"	40'	50'	healthy	remove	No	A	No	Yes
28	5117	<i>Quercus agrifolia</i>	Coast Live Oak	4"	15'	10'	minor suppression from neighbors	remove	Yes	B	No, under 6"	Yes
OP29	no tag	<i>Jacaranda mimosifolia</i>	Mimosa Tree	10"	30'	30'	healthy	no action	No	A	No	No
OP30	no tag	<i>Eucalyptus globulus</i>	Blue Gum Eucalyptus	24"	55'	40'	healthy	no action	No	A	No	No
31	no tag	<i>Heteromeles arbutifolia</i>	Toyon	multi-stem	15'	30'	drought stress	remove	Yes	B-	No	Yes
32	5118	<i>Jacaranda mimosifolia</i>	Mimosa Tree	4"	15'	10'	suppressed by neighbors	remove	Yes	B	No	Yes
33	5119	<i>Prunus ilicifolia</i>	Holly Leaf Cherry	4"	15'	15'	healthy	remove	Yes	A-	No	Yes

Protected Trees to be Removed

No protected trees will be removed. Tree 23 was a protected tree that was dead in 2017, and it was removed prior to my September 10, 2019 site visit.

Protected Trees to Remain on Site

Tree #	Tag	Species	Common Name	DBH	Height	Spread	Condition	Treatment	Natural?	Rating	Protected?	Remove?
OP4	5101	<i>Quercus agrifolia</i>	Coast Live Oak	9", 10", 10"	20'	20'	healthy, past topping	no action	Yes	A	Yes	No
7	5103	<i>Quercus agrifolia</i>	Coast Live Oak	11", 22"	35'	45'	minor woodpecker damage	no action	Yes	A-	Yes	No
OP12	5106	<i>Quercus agrifolia</i>	Coast Live Oak	19"	30'	20'	leaning slightly, healthy	no action	Yes	A-	Yes	No
OP14	no tag	<i>Quercus agrifolia</i>	Coast Live Oak	13", 16"	30'	40'	bark borer damage, drought stress	no action	Yes	C	Yes	No
16	5107	<i>Quercus agrifolia</i>	Coast Live Oak	10", 10"	30'	25'	healthy	no action	Yes	A	Yes	No
25	5114	<i>Quercus agrifolia</i>	Coast Live Oak	6.5"	20'	15'	minor suppression from neighbors	no action	Yes	A-	Yes	No

Recommendations and Construction Impact Guidelines

Pre-Construction

Pre-construction treatment is intended to set protected trees into a “holding pattern” to last through the stresses from construction activity. These recommendations should be implemented prior to the start of construction.

- Erect tree protection zone fencing as shown in this report:
 - No construction activity, heavy equipment access, or materials storage should take place within the tree protection zones during construction without the direct supervision and approval of a certified arborist.
 - Fencing should be made of a sturdy material, at least 4 feet in height, and brightly colored.
 - Support posts for the fencing should either be anchored above grade with sandbags or similar material or they should be driven into the ground at least five feet away from any tree trunk.
 - Tree trunks should not be wrapped in fencing material, and they should not be used as support posts for the tree protection fencing.

- Prune Tree 7 for clearance over the work area. Pruning cuts should be 2 inches in diameter or smaller. If additional pruning becomes necessary, hire a crew directly supervised by a certified arborist on site to ensure the pruning cuts are made to branch unions and do not remove an excessive amount of foliage. Only prune when deemed necessary by the project arborist; as much live foliage as possible should be preserved through the construction process to give the trees the best opportunity to thrive after construction is complete.

- After obtaining permits to do so, remove the trees approved for removal by the urban planner.

During Construction

This is the stage where mechanical injury is the most likely to occur. By following these recommendations, the likelihood of accidental damage will be reduced:

- Inform all construction personnel of the intention to preserve the tree. Many times damage occurs because workers are not aware of the importance of preserving the trees on site. This includes contractors and their respective subcontractors as well.
- If any changes are made to the plans resulting in any excavation or equipment access within the dripline of any protected tree, the project arborist should be informed. Additional protection measures may need to be discussed.
- Throughout the construction period, a certified arborist should make periodic site visits to ensure the tree protection plan is being followed.
- No construction activity should take place within the tree protection zones. This includes construction worker access, materials storage, and equipment access.
- If any injury should occur to a protected tree during construction, the project arborist should be informed within 24 hours so it may be evaluated and treated as soon as possible.
- Retain the tree protection zone fencing until construction activity has been completed or until the landscape installation phase begins. Even when landscapers are permitted near the tree, make sure they are aware of the intention to preserve the tree and the roots if any digging is performed for irrigation lines or plant installation.
- Project arborist should directly supervise all excavation within 5 feet of the drip lines of Trees 4, 7, and 16. All excavation within the 5 feet of the drip lines of these trees should be performed with hand tools only. If roots are encountered, the arborist should make appropriate severing cuts to root junctions with a sharp cutting tool.
- If during any part of the construction phase there is a significant amount of particulates in the air (from cutting materials or any other activity), a shop vacuum or equivalent should be used during the cutting or other activity to reduce the amount of particulates that are deposited on the foliage. If despite a good faith effort to reduce particulates, a layer is still deposited on the foliage, wash it off with a jet of water at the end of each construction day where particulates are deposited.

- During the painting phase, if spray-application of paint is used within the drip line of a protected tree, wrap the exposed half of the lower 16 feet of the trunk and scaffold branches with plastic at the beginning of each painting day to avoid paint drifting onto the trunk. Remove the plastic at the end of each day to allow for air circulation.

Post-Construction Care

The most stressful time of year for the subject trees will be the summer immediately following construction. The following management practices are recommended:

- Retain the tree protection zone fencing until construction activity has been completed or until the landscape installation phase begins. Even when landscapers are permitted near the trees, make sure they are aware of the intention to preserve the trees and the roots if any digging is performed for irrigation lines or plant installation.
- All irrigation line trenches within the dripline of protected trees should be hand-dug. If significant roots measuring one inch in diameter or larger are encountered, the project arborist should be consulted. If practical, tunnel underneath the roots to preserve them.
- Automatic irrigation sprinklers should not apply any moisture within five feet of the trunk of any protected oak tree.
- Retain the leaf drop around the root zone of the subject trees where practical. The best ground cover for a tree is its own leaf mulch. Leaf mulch will continue to reduce soil evaporation and mitigate soil temperature changes. If leaf drop is not practical for use, apply a layer of coarse mulch 2-4 inches thick around the base of the protected trees intended for preservation.
- The subject trees may be monitored by a certified arborist for development of disease, decay, or other symptoms of stress due to construction activity. Deadwood may be removed as it appears, and as much live wood as possible should be retained on the trees, provided that it doesn't come into conflict with the infrastructure.

Limitations

Please understand that my observations are based on a strictly visual inspection of the property, and some hidden or buried symptoms and signs may not have been observed. I did not conduct excavation, coring, or climbing inspection to make observations.

My analysis is only based on the observations I gathered at the time of inspection. I do not guarantee the safety of the subject trees. There is no warranty or guarantee, expressed or implied, that problems or deficiencies may not arise in the future. Furthermore, I am in no way liable for any unforeseen damages caused by the tree pruning crews carrying out my recommendations.

Arborists are tree specialists who use their knowledge, education, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways not fully understood. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Site Map



Figure 1: Site map of the subject trees and their respective drip lines. Oak trees are shown in yellow. Trees that are not protected species are shown in grey. Trees proposed for removal are circled in red. Proposed tree protection fencing is shown in green.

Site Photos



Figure 2: Tree 1 was removed prior to my September 10, 2019 site visit.



Figure 3: Tree OP2



Figure 4: Tree OP3



Figure 5: Tree OP4



Figure 6: Tree 5



Figure 7: Tree OP6



Figure 8: Tree 7 will be encroached from the east (right) and southwest (foreground). It will be retained in the landscape.



Figure 9: Tree 8



Figure 10: Tree 9



Figure 11: Tree OP10 is dead and recommended for removal. It is growing on the neighboring property.



Figure 12: Tree OP11 was removed prior to my September 10, 2019 site visit.



Figure 13: Tree OP12



Figure 14: Asset OP13 is comprised of a row of small *Ficus* trees.



Figure 15: Tree OP14



Figure 16: Tree OP15



Figure 17: Tree 16 will be encroached by construction of a retaining wall along the eastern edge of its drip line (out of frame, right).



Figure 18: Tree 17



Figure 19: Tree 18



Figure 20: Tree 19



Figure 21: Tree 20 is not an oak, despite its look-alike foliage.



Figure 22: Tree 21 was removed prior to my September 10, 2019 site visit.



Figure 23: Tree 22 is not large enough to be protected. It will be removed.



Figure 24: Tree 23 was removed prior to my September 10, 2019 site visit.



Figure 25: Tree 24 is not large enough to be protected. It will be removed.



Figure 26: Tree 25 is protected. It will be retained in the landscape.

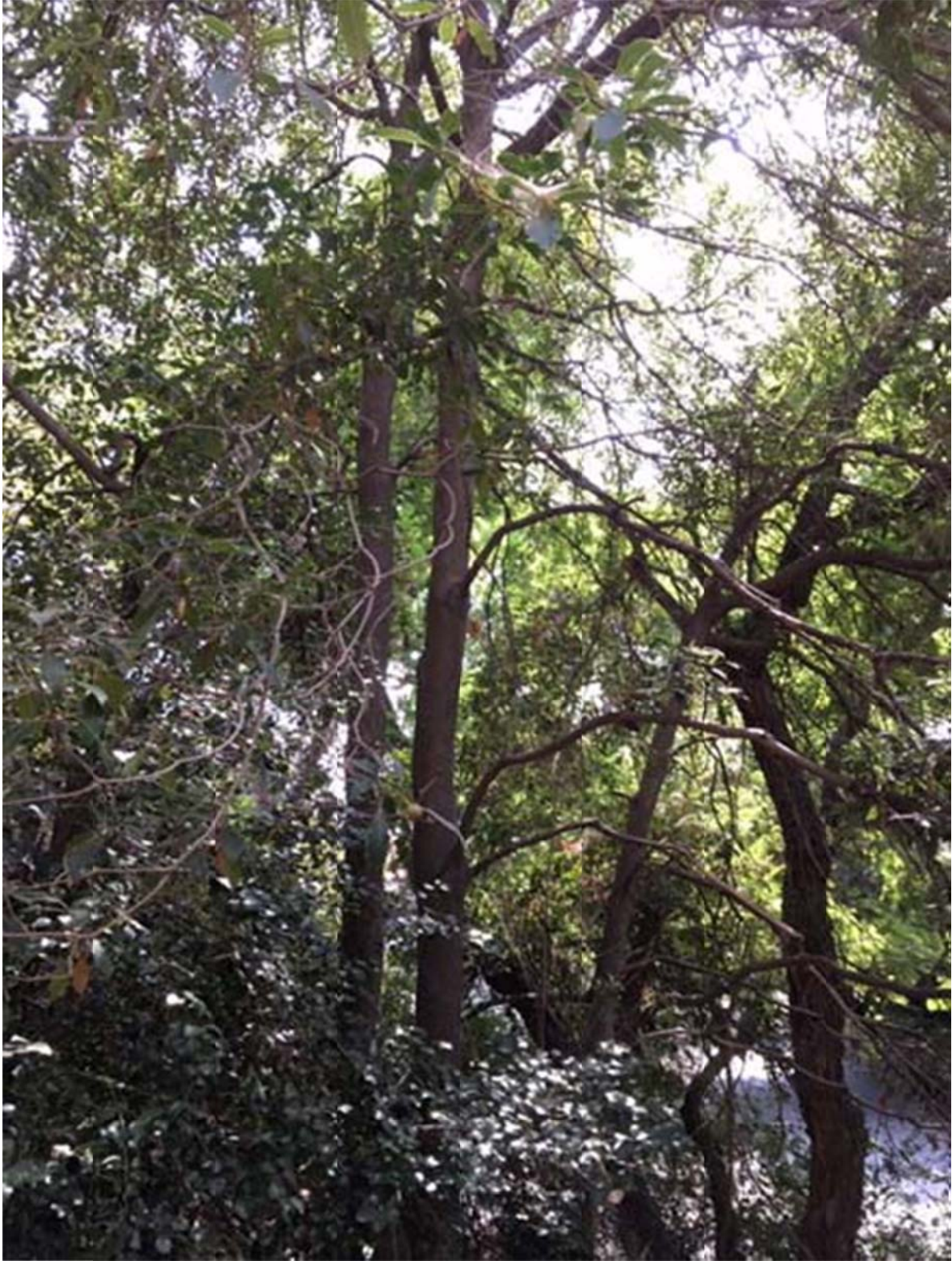


Figure 27: Tree 26



Figure 28: Tree 27

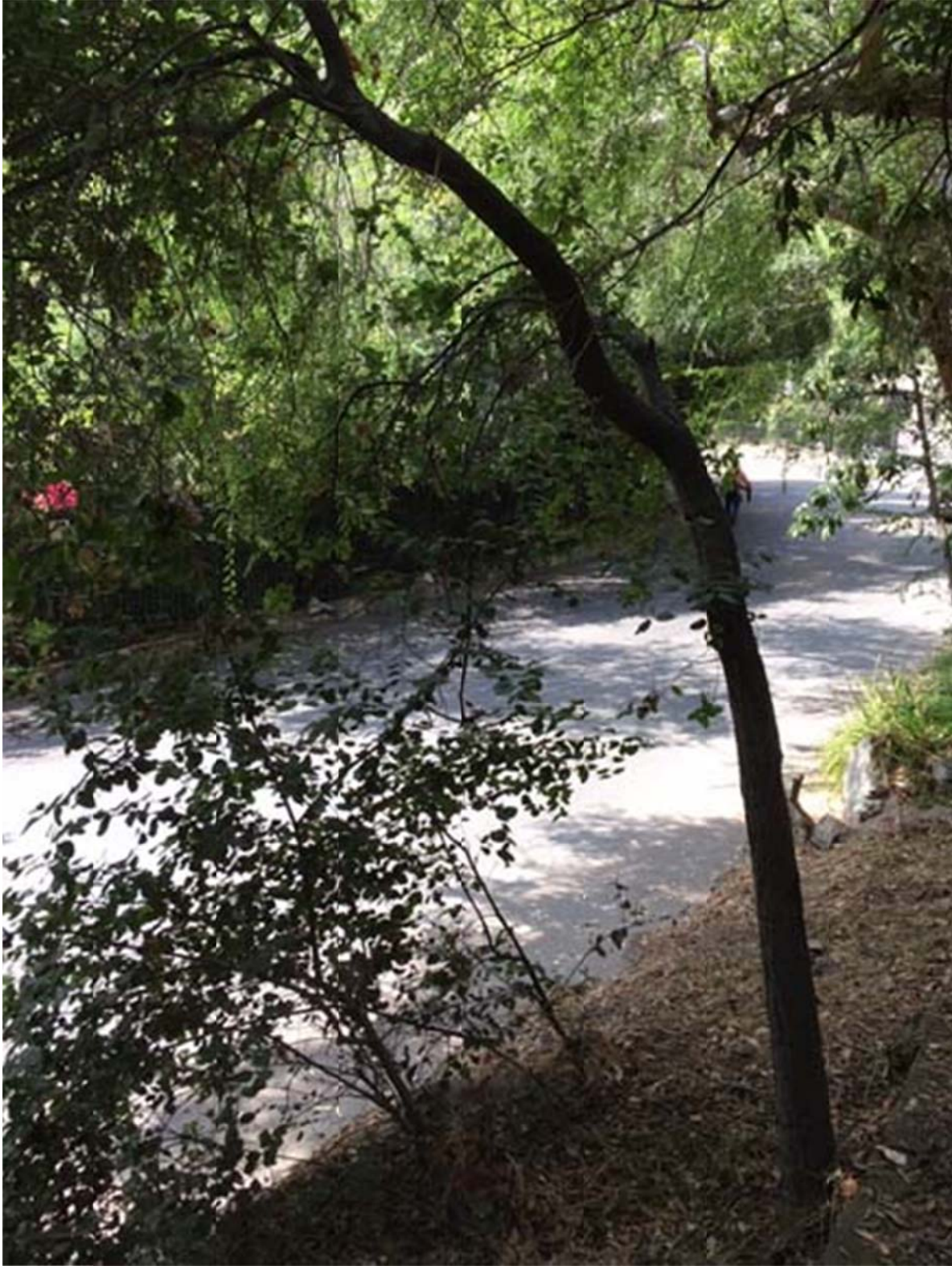


Figure 29: Tree 28 is not large enough to be protected. It will be removed.



Figure 30: Tree OP29



Figure 31: Tree OP30



Figure 32: Tree 31



Figure 33: Tree 32



Figure 34: Tree 33 is not an oak, despite its look-alike foliage.