

July 18, 2022

Jerel Olimpiada CNA Engineering, Inc. 2575 Valley Rd Sacramento, CA 95821 Via Email: jerel@cnaeng.com

## PRELIMINARY ARBORIST REPORT

RE: 7705 Hickory Ave, APN #224-0240-013-0000, Orangevale CA, jurisdiction of Sacramento County, California

# **Executive Summary:**

CNA Engineering, Inc., on behalf of the property owner Aleksey Zhirkov, contacted California Tree and Landscape Consulting, Inc. to inventory and evaluate the trees on the site for purposes of providing preliminary tree information for planning for a parcel split. The property is located at 7705 Hickory Avenue in Orangevale, California, and is subject to the jurisdiction of Sacramento County. This report is a revision to the original report dated September 28, 2020. This revision includes the addition of the trees along the driveway easement from Hickory Avenue. See Supporting Information Appendix A –Tree Location Map.

R. Cory Kinley, ISA Certified Arborist #9717A, was on site on September 16<sup>th</sup>, 2020 to provide species identification, measurements of diameter and canopy, field condition notes and arborist ratings. Tyler Thomson, ISA Certified Arborist #WE-12751A, visited the site June 7, 2022 & July 12, 2022. A total of 171 trees were included in the inventory, of which 65 are located on the parcel and 65 are on adjacent parcels. Any off-site trees that are adjacent to development may need protection. 115 trees surveyed are protected by the Sacramento County Tree Preservation Ordinance.

Tree Species	Trees Inventoried	Trees on the Site <sup>1</sup>	Protected by Sacramento County Tree Preservation, 19.12[1]	Trees Proposed for Removal	Trees impacted by the proposed development and requiring special protection measures and/or mitigation <sup>1</sup>
Protected (by species):					
Valley Oak, Quercus lobata	41	7	39	-	_
Interior Live Oak, Quercus wislizeni	76	31	66	_	_
Blue Oak, Quercus douglasii	15	2	10	-	-
				-	-
Non-Protected (by species):				-	_
Landscape species (zelkova, london planetree, modesto ash, italian stone pine, goldenrain tree, crabapple, mulberry, privet, australian willow, fig, cherry, strawberry tree, yew pine, silk tree, plum, pecan, almond, black walnut, crape myrtle, cypress, nectarine, podocarpus )	39	25	0	-	-
Totals	171	65	115	_	_

<sup>&</sup>lt;sup>1</sup> CalTLC is not a licensed land surveyor. Tree locations are approximate and we do not determine tree ownership. Trees which appear to be on another parcel are listed as off-site and treated as the property of that parcel.

# See Appendices for specific information on each tree and additional preservation requirements and/or development restrictions

# **Methods**

<u>Appendix B</u> in this report is the detailed inventory and recommendations for the trees. The following terms and Table A – Ratings Description will further explain our findings.

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Location: The GPS location of each tree was collected using the ESRI's ArcGIS collector application on an Apple iPhone or Samsung. The data was then processed in ESRI's ArcMap by Julie McNamara, M.S. GISci, to produce the tree location map.

Tree Measurements: DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted. A steel diameter tape or Biltmore stick was used to measure the diameter. A Stanley laser distance meter was used to measure distances. Canopy radius measurements may also have been estimated due to obstructions, such as steep slopes, fences, or other trees.

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Field Tag # The pre-stamped tree number on the tag which is installed at approximately 6' above ground level on the

north side of the tree.

Old Tag # If additional field tags are found on the trees and are legible, they are listed here.

Species The species of a tree is listed by our local and correct common name and botanical name by genus

(capitalized) and species (lower case). Oaks frequently cross-pollinate and hybridize, but the identification

is towards the strongest characteristics.

DBH Diameter breast high is normally measured at 4'6" (above the average ground height for "Urban Forestry"),

but if that varies then the location where it is measured is noted in the next column "measured at"

Measured

at

Height above average ground level where the measurement of DBH was taken

Canopy radius and Protection Area The farthest extent of the crown composed of leaves and small twigs. Most trees are not evenly balanced. This measurement represents the longest extension from the trunk to the outer canopy. The dripline measurement is from the center point of the tree and is shown on the Tree Location Map as a circle. This measurement further defines the protection zone and can indicate if pruning may be required for development. Sacramento County specifies this measurement as the required 'Protected Root Zone'

Critical Root Zone The radius of the critical root zone is a circle equal to the trunk diameter" converted to' and factored by tree age, condition and health pursuant to the industry standard. Best Management Practices: Managing Trees During Construction, the companion publication to the Approved American National Standard, provides guidance regarding minimum tree root protection zones for long term survival. In instances where

a tree is multi-stemmed the protected root zone is equal to the extrapolated diameter (sum of the area of

each stem converted to a single stem) factored by tree age, condition and health.



Arboris Rating Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection.

Arborist Ratings			Sacramento County Ratings
No problem(s)	Excellent	5	Excellent
No apparent problem(s)	Good	4	Good
Minor problem(s)	Fair	3	Fair
Major problem(s)	Fair to Poor	2	Declining
Extreme problem(s)	Poor	1	Severe Decline
Dead	Dead	0	Dead

Rating #0: This indicates a tree that has no significant sign of life.

<u>Rating #1:</u> The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.

Rating #2: The tree has major problems. If the option is taken to preserve the tree, its condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.

<u>Rating #3:</u> The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.

<u>Rating #4:</u> The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.

<u>Rating #5</u>: No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect characteristics for the species. Highly rated trees are not common in natural or developed landscapes. No tree is ever perfect especially with the unpredictability of nature, but with this highest rating, the condition should be considered excellent.

Notes:

Provide notable details about each tree which are factors considered in the determination of the tree rating including: (a) condition of root crown and/or roots; (b) condition of trunk; (c) condition of limbs and structure; (d) growth history and twig condition; (e) leaf appearance; and (f) dripline environment. Notes also indicate if the standard tree evaluation procedure was not followed (for example - why dbh may have been measured at a location other than the standard 54"). Additionally, notes will list any evaluation limiting factors such as debris at the base of a tree.

### Discussion

Trees need to be protected from normal construction practices if they are to remain healthy and viable on the site. Our recommendations are based on experience and the County ordinance requirements to enhance tree longevity. This requires their root zones remain intact and viable despite the use of heavy equipment to install foundations, driveways, underground utilities, and landscape irrigation systems. Simply walking and driving on soil can have serious consequences for tree health. Tree Protection measures should be incorporated into the site plans in order to protect the trees.

#### **Root Structure**

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy. The correct root structure of a tree is in the drawing below. All plants' roots need



both water and air for survival. Poor canopy development or canopy decline in mature trees a'er development is o'en the result of inadequate root space and/or soil compaction.



The reality of where roots are generally located

# Pruning Mature Trees for Risk Reduction and/or Development Clearance

There are few good reasons to prune mature trees. Removal of deadwood, directional pruning, removal of decayed or damaged wood, and end-weight reduction as a method of mitigation for structural faults are the only reasons a mature tree should be pruned. Live wood over 3" should not be pruned unless absolutely necessary. Pruning cuts should be clean and correctly placed. Pruning should be done in accordance with the American National Standards Institute (ANSI) A300 standards.

Pruning causes an open wound in the tree. Trees do not "heal" they compartmentalize. It is far better to use more small cuts than a few large cuts as small pruning wounds reduce risk while large wounds increase risk. Any wound made today will always remain, but a healthy tree, in the absence of decay in the wound, will 'cover it' with callus tissue. Large, old pruning wounds which did not close with callous tissue often have advanced decay. These wounds are a likely failure point. Mature trees with large wounds have a high risk of failure.

Overweight limbs are a common structural fault in suppressed trees. There are two remedial actions for over-weight limbs (1) prune the limb to reduce the extension of the canopy, or (2) cable the limb to reduce movement. Cables do not hold weight they only stabilize the limb and additionally require annual inspection.

### **Arborist Classifications**

There are different types of Arborists:

Tree Removal and/or Pruning Companies: These companies may be licensed by the State of California to do business as a tree removal company, but they do not necessarily know anything about trees biology.

Arborists: Arborist is a broad term intended to mean someone with specialized knowledge of trees, but it is o'en used to imply knowledge that is not there.

ISA Certified Arborist: An International Society of Arboriculture Certified Arborist is someone who has trained, met the qualifications for application, and been tested to have specialized knowledge of trees. You can look up certified arborists at the International Society of Arboriculture website: isa-arbor.org.

Consulting Arborist: An American Society of Consulting Arborists Registered Consulting Arborist is someone who has been trained and then tested to have specialized knowledge of trees; and trained and tested to provide high quality reports and documentation. You can look up registered consulting arborists at the American Society of Consulting Arborists website: ASCA-consultants.org.



## Recommendations

The grading and site plans should include the following information:

- The project arborist for this project is California Tree & Landscape Consulting. The primary contact information is Cory Kinley (916) 955-6162. The secondary contact information is Nicole Harrison (530) 305-0165.
- Trees must be accurately located with base elevation and shown on the plans as a circle equal to the longest limb radius and cannot be depicted with an irregular canopy.
- The protection zone for trees is specified as the 'canopy radius' in Appendix 2 unless otherwise specified in the
  preservation requirements. The location of the tree protection fencing shall be depicted on the plans pursuant
  to the arborist recommendations. Note 'dripline' is not an acceptable location for installation of tree protection
  fencing.
- The Tree Protection Detail drawing shall be included on the plans.
- The root impact area shall be depicted on the plans as a hatched area with a percentage impact. Impacts are calculated using the tree protection fence location.
- The project arborist will monitor the site during construction and may make additional recommendations to ensure the survivability of the trees.

General Tree protection measures are included as Appendix 3. These measures need to be included on the Site, Grading, Utility and Landscape Plans. A final report of recommendations specific to the plan can be completed as part of, and in conjunction with, the actual plans. This will require the arborist working directly with the engineer and architect for the project. If the above recommendations are followed, the amount of time required by the arborist for the final report should be minimal.

Report Prepared by:

R. Coy Viley

R. Cory Kinley

ISA Certified Arborist #WC-9717A, TRAQ



## **Attachments**

Appendix 1 – Tree Location Maps

Appendix 2 – Tree Data

Appendix 3 - General Development Guidelines

Appendix 4 - Site Photographs

# Bibliography

International Society of Arboriculture. (2015). Glossary of Arboricultural Terms. Champaign: International Society of Arboriculture.

L.R., C. (2003). Reducing Infrastructure Damage by Tree Roots. Porterville: International Society of Arboriculture.

Matheny, J. C. (1994). Evaluation of Hazard Trees in Urban Areas, Second Edition. Champaign: International Society of Arboriculture.

Menzer, K. (2008). Consulting Arborist Report.

Smiley. (2008). Managing Trees During Construction, Best Management Practices. Champaign: International Society of Arboriculture.

Tree Care Industry Association. (2017). *Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning).* Londonderry: Tree Care Industry Association.

Urban, J. (2008). Up by the Roots. Champaign: International Society of Arboriculture.





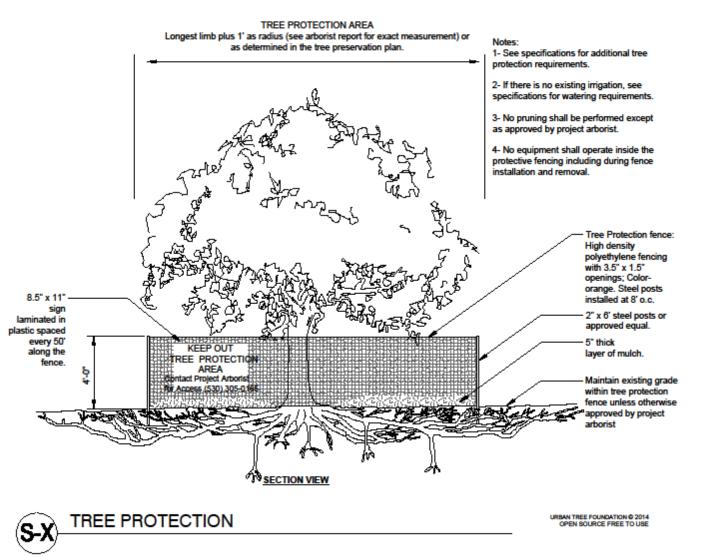


# California Tree & Landscape Consulting, Inc.

359 Nevada Street, #201 Auburn, CA 95603

# TREE PROTECTION GENERAL REQUIREMENTS

- The project arborist for this project is California Tree & Landscape Consulting. The
  primary contact information is Nicole Harrison (530) 305-0165. The project arborist may
  continue to provide expertise and make additional recommendations during the
  construction process if and when additional impacts occur or tree response is poor.
  Monitoring and construction oversight by the project arborist is recommended for all
  projects and required when a final letter of assessment is required by the jurisdiction.
- 2. The project arborist should inspect the exclusionary root protection fencing installed by the contractors prior to any grading and/or grubbing for compliance with the recommended protection zones. Additionally, the project arborist shall inspect the fencing at the onset of each phase of construction. The root protection zone for trees is specified as the 'canopy radius' in Appendix 2 in the arborist report unless otherwise specified by the arborist. Note 'dripline' is not an acceptable location for installation of tree protection fencing.
- 3. The project arborist should directly supervise any clearance pruning, irrigation, fertilization, placement of mulch and/or chemical treatments. If clearance pruning is required, the Project Arborist should approve the extent of foliage elevation and oversee the pruning to be performed by a contractor who is an ISA Certified Arborist. Clearance pruning should include removal of all the lower foliage that may interfere with equipment PRIOR to having grading or other equipment on site.
- No trunk within the root protection zone of any trees shall be removed using a backhoe or other piece of grading equipment.
- Clearly designate an area on the site that is outside of the protection area of all trees where construction materials may be stored, and parking can take place. No materials or parking shall take place within the protection zones of any trees on or off the site.
- Any and all work to be performed inside the protected root zone fencing, including all grading and utility trenching, shall be approved and/or supervised by the project arborist.
- Trenching, if required, inside the protected root zone shall be approved and/or supervised by the project arborist and may be required to be performed by hand, by a hydraulic or air spade, or other method which will place pipes underneath the roots without damage to the roots.
- 8. The root protection zone for trees is specified as the 'canopy radius' in Appendix 2 in the arborist report unless otherwise specified by the arborist. Note 'dripline' is not an acceptable location for installation of tree protection fencing.



TREE INVENTORY MAP

>Tree locations are approximate and were collected using ISO apple products.
>Property line information was downloaded from Sacramento County on 09/24/2020.

Property Line

Arborist Rating

Dead

Tree Protection Fencing

1 Extreme Structure or Health Problems

2 Major Structure or Health Problems

3 Fair - Minor Problems

4 Good - No Apparent Problems

5 Excellent



7705 Hickory Ave

Orangevale, Sacramento County, California

Sheet No. TPP 1.0 APN #224-0240-013-0000

Date: 9/24/2020



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

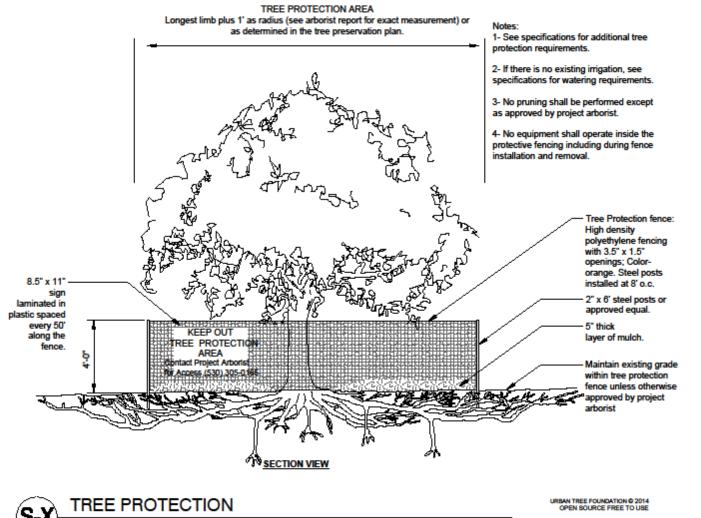
CalTLC

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  Monitoring and construction oversight by the project arborist is recommended for all
  projects and required when a final letter of assessment is required by the jurisdiction.
- 2. The project arborist should inspect the exclusionary root protection fencing installed by the contractors prior to any grading and/or grubbing for compliance with the recommended protection zones. Additionally, the project arborist shall inspect the fencing at the onset of each phase of construction. The root protection zone for trees is specified as the 'canopy radius' in Appendix 2 in the arborist report unless otherwise specified by the arborist. Note 'dripline' is not an acceptable location for installation of tree protection fencing.
- 3. The project arborist should directly supervise any clearance pruning, irrigation, fertilization, placement of mulch and/or chemical treatments. If clearance pruning is required, the Project Arborist should approve the extent of foliage elevation and oversee the pruning to be performed by a contractor who is an ISA Certified Arborist. Clearance pruning should include removal of all the lower foliage that may interfere with equipment PRIOR to having grading or other equipment on site.
- No trunk within the root protection zone of any trees shall be removed using a backhoe or other piece of grading equipment.
- Clearly designate an area on the site that is outside of the protection area of all trees where construction materials may be stored, and parking can take place. No materials or parking shall take place within the protection zones of any trees on or off the site.
- Any and all work to be performed inside the protected root zone fencing, including all grading and utility trenching, shall be approved and/or supervised by the project arborist.
- 7. Trenching, if required, inside the protected root zone shall be approved and/or supervised by the project arborist and may be required to be performed by hand, by a hydraulic or air spade, or other method which will place pipes underneath the roots without damage to the roots.
- 8. The root protection zone for trees is specified as the 'canopy radius' in Appendix 2 in the arborist report unless otherwise specified by the arborist. Note 'dripline' is not an acceptable location for installation of tree protection fencing.



DRIVEWAY EASEMENT TREE INVENTORY MAP

>Tree locations are approximate and were collected using ISO apple products.
>Property line information was downloaded

Arborist Rating

O Dead

Driveway Easement

1 Extreme Structure or Health Problems

2 Major Structure or Health Problems

3 Fair - Minor Problems

4 Good - No Apparent Problems

5 Excellent

Orangevale, Sacramento County, California

7705 Hickory Ave

Sheet No. TPP 1.0

APN #224-0240-013-0000

**Date: July 6, 2022** 

# Appendix 2 – Tree Data

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1	Yes		Quercus Iobata	Valley oak	27.5		48	25	4 Good - No Apparent Problems		Codominant at 4 feet. Vigor good	9/16/2020
2			Malus fusca	Crab apple	8	6,6	36	8	3 Fair - Minor Problems		Suppressed by large oak Southwest. Codominant at ground. 2 stems. significant inclusion	9/16/2020
3	Yes		Quercus wislizeni	Interior live oak	9		54	10	3 Fair - Minor Problems		Trunk growing at Fenceline. fence post and chain-link included in trunk. Codominant at 6 feet.	9/16/2020
4	Yes		Quercus wislizeni	Interior live oak	14	11,9	54	12	3 Fair - Minor Problems		Trunk located at Fenceline. fence included in trunk Eastside. Codominant at 12 inches inclusion seem	9/16/2020
5	Yes		Quercus wislizeni	Interior live oak	8		54	15	3 Fair - Minor Problems		Trunk located at fence line. Fence included in trunk east side. Codominant at 8 feet. Suppressed. Severe trunk and canopylean south west.	9/16/2020
6	Yes		Quercus lobata	Valley oak	6		54	10	3 Fair - Minor Problems		Trunk is growing at Fenceline. Fence included in trunk east side. Suppressed. Trunk and canopy slight lean South	9/16/2020
7			Morus alba	Mulberry	11		54	15	2 Major Structure or Health Problems		Trunk growing at Fenceline. Codominant at 6 feet. 6 inch low laterals growing at 24 inches north side with inclusion. One interior leader Broken off, with decay	9/16/2020
8	Yes		Quercus Iobata	Valley oak	21		54	25	4 Good - No Apparent Problems		Codominant at 15 feet. Callus bark Eastside at 24 inches. Vigor good	9/16/2020

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
9	Yes		Quercus Iobata	Valley oak	21.5		54	20	3 Fair - Minor Problems		Growing at Fenceline west side. Metal fence pipe included in trunk at 5 feet. Codominant at 15 feet. Upper trunk leans moderately east	9/16/2020
10	Yes		Quercus wislizeni	Interior live oak	17.5		54	20	3 Fair - Minor Problems		Codominant at 6 feet. Suppression growth. Trunk and canopy lean severely west	9/16/2020
11			Quercus wislizeni	Interior live oak	6		54	6	3 Fair - Minor Problems		Codominant at 5 feet. Growing at fence line	9/16/2020
12	Yes		Quercus wislizeni	Interior live oak	6		54	6	3 Fair - Minor Problems		Codominant at 6 feet. Growing at Fenceline	9/16/2020
13	Yes		Quercus lobata	Valley oak	15		54	20	4 Good - No Apparent Problems		Growing at Fenceline west side. Codominant at 12 feet. Vigor good	9/16/2020
14	Yes		Quercus wislizeni	Interior live oak	5		54	10	2 Major Structure or Health Problems		Trunk growing at Fenceline west side. Suppressed trunk and canopy severe lean West	9/16/2020
15	Yes	Yes	Quercus lobata	Valley oak	32		54	30	4 Good - No Apparent Problems		Offsite tag on fence. Tree is at Fenceline north side. Trunk overhangs property line south 25 feet	9/16/2020
16	Yes	Yes	Quercus wislizeni	Interior live oak	13	7,7,7,5	54	15	3 Fair - Minor Problems		Offsite tree at Fenceline north side. Canopy overhang Fenceline 15 feet south. Codominant at 12 inches	9/16/2020
17	Yes	Yes	Quercus wislizeni	Interior live oak	10	7,8	54	15	3 Fair - Minor Problems		Offsite. Tree growing at Fenceline north side. Canopy overhanging Fenceline 15 feet south	9/16/2020

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
18	Yes	Yes	Quercus Iobata	Valley oak	7		54	12	3 Fair - Minor Problems		Offsite. trunk growing at fence line north side. Can it be overhangs fence line 15 feet self	9/16/2020
19	Yes	Yes	Quercus lobata	Valley oak	10		54	20	3 Fair - Minor Problems		Offsite trunk is at Fenceline north side. Suppressed. Canopy overhangs Fenceline 20 feet south	9/16/2020
20	Yes	Yes	Quercus lobata	Valley oak	17		24	25	3 Fair - Minor Problems		Offsite. Trunk is 18 inches north of Fenceline. Canopy overhangs fence line 20 feet south	9/16/2020
21	Yes	Yes	Quercus lobata	Valley oak	5		54	12	2 Major Structure or Health Problems		Offsite trunk is at Fenceline north side. Canopy overhangs fence line 10 feet south.	9/16/2020
22	Yes	Yes	Quercus wislizeni	Interior live oak	10		24	12	2 Major Structure or Health Problems		Offsite. Trunk is at Fenceline north side. Canopy overhangs fence line 10 feet south. Suppressed. trunks and canopy been severely Southwest	9/16/2020
23	Yes	Yes	Quercus Iobata	Valley oak	10		54	20	3 Fair - Minor Problems		Offsite trunk is at Fenceline north side. Canopy overhang Fenceline 20 feet south	9/16/2020
24	Yes	Yes	Quercus Iobata	Valley oak	8		54	20	3 Fair - Minor Problems		Offsite trunk is at Fenceline north side. Canopy overhang Fenceline 20 feet south	9/16/2020
25		Yes	Quercus Iobata	Valley oak	12		54	15	3 Fair - Minor Problems		Offsite trunk is at Fenceline north side. Canopy overhangs Fenceline 10 feet south	9/16/2020
26	Yes	Yes	Quercus Iobata	Valley oak	8		54	8	2 Major Structure or Health Problems		Offsite. Trunk is at Fenceline north side. Canopy overhangs Fenceline 6 feet south. Suppressed height stunted	9/16/2020

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
27	No	Yes	Quercus douglasii	Blue oak	4		54	6	3 Fair - Minor Problems		Offsite. Trunk at Fenceline north side. Canopy overhangs Fenceline 6 feet south	9/16/2020
28	Yes	Yes	Quercus Iobata	Valley oak	21	16,14	54	20	4 Good - No Apparent Problems		Offsite trunk is on Fenceline north side. Canopy overhangs Fenceline 20 feet south	9/16/2020
29	Yes	Yes	Quercus douglasii	Blue oak	10	8,7	54	15	3 Fair - Minor Problems		Offsite trunk is at fence line north side. One sided leaning canopy south is 12 feet over fenceline	9/16/2020
30	Yes	Yes	Quercus Iobata	Valley oak	16		54	20	3 Fair - Minor Problems		Offsite. trunk is at Fenceline north side. Canopy overhangs Fenceline 20 feet south	9/16/2020
31	Yes	Yes	Quercus douglasii	Blue oak	9		54	12	3 Fair - Minor Problems		Offsite Tag on fence.trunk is 18 inches north of Fenceline. Canopy overhangs Fenceline 10 feet south	9/16/2020
32	Yes	Yes	Quercus Iobata	Valley oak	20		54	25	3 Fair - Minor Problems		Offsite. Trunk is at Fenceline north side. Canopy overhangs fenceline 20ft south	9/16/2020
33	Yes	Yes	Quercus douglasii	Blue oak	14	11,10	54	15	3 Fair - Minor Problems		Offsite. Trunk at fence line north side. Canopy overhangs fence line 15 feet south	9/16/2020
34	Yes	Yes	Quercus douglasii	Blue oak	6		54	10	3 Fair - Minor Problems		Offsite. Trunk is 1 foot north of Fenceline. Canopy overhang Fenceline 10 feet south.	9/16/2020
35	Yes	Yes	Quercus douglasii	Blue oak	9		54	12	3 Fair - Minor Problems		Offsite. Trunk is 1 foot north of Fenceline. Canopy overhangs Fenceline 12 feet south. Suppressed. Trunk and canopy lean south	9/16/2020
36	Yes	Yes	Quercus wislizeni	Interior live oak	14		54	12	3 Fair - Minor Problems		Offsite. Trunk is at Fenceline north side. Canopy	9/16/2020



Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
											overhangs Fenceline 12 feet south	
37	Yes	Yes	Quercus douglasii	Blue oak	8		54	8	3 Fair - Minor Problems		Offsite. Trunk is at Fenceline north side. Canopy overhangs Fenceline 8 feet south	9/16/2020
38			Morus alba	Mulberry	15.5		12	15	3 Fair - Minor Problems		On bank of retention pond. Codominant at 2ft	9/16/2020
39			Geijera parviflora	Australian willow			54	10	3 Fair - Minor Problems		4 Australian willow clusters approx 20 stems 1"-3" dbh. On bank of retention pond	9/16/2020
40	Yes		Quercus wislizeni	Interior live oak	6	4,3,3,2	54	6	3 Fair - Minor Problems		On bank of retention pond. Codominant at 12 inches	9/16/2020
41	Yes		Quercus wislizeni	Interior live oak	5		54	4	3 Fair - Minor Problems		On Bank of retention pond	9/16/2020
42			Geijera parviflora	Australian willow	5	4,2,1,1,1,1,1	54	8	2 Major Structure or Health Problems		Stump sprouts. Stems on 18 inch flushed stump.	9/16/2020
43			Geijera parviflora	Australian willow	16	14,8	54	15	2 Major Structure or Health Problems		On Bank of retention pond. Two stems remaining. Previously failure of eastern side. Trunks and canopy leaning West vigor poor	9/16/2020
44	Yes		Quercus wislizeni	Interior live oak	14		12	10	3 Fair - Minor Problems		At Fenceline Eastside. West side of tree included in fence at 36 inches. Codominant at 24 inches	9/16/2020
45	Yes		Quercus lobata	Valley oak	24		54	25	4 Good - No Apparent Problems		At Fenceline east side. Codominant at 10 feet	9/16/2020

Consulting Arborist Page 12 of 34

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
46	Yes		Quercus wislizeni	Interior live oak	4		54	6	3 Fair - Minor Problems		At Fenceline east side	9/16/2020
47	Yes		Quercus wislizeni	Interior live oak	5	3,2,2,2,2	54	8	3 Fair - Minor Problems		At Fenceline east side. Codominant at base	9/16/2020
48			Morus alba	Mulberry	13	8,6,6,5,4,4	54	20	3 Fair - Minor Problems		Codominant at base with inclusion. Trunk at Fenceline east side	9/16/2020
49	Yes		Quercus wislizeni	Interior live oak	13.5		54	15	3 Fair - Minor Problems		Low laterals up to 36 inches high west and south	9/16/2020
50			Platanus x hispanica	London plane	18.5		54	25	3 Fair - Minor Problems		Codominant at 10 feet.	9/16/2020
51			Platanus x hispanica	London plane	19		36	25	3 Fair - Minor Problems		codominant at 5 feet. Flat trunk at codominant	9/16/2020
52			Platanus x hispanica	London plane	15		36	25	3 Fair - Minor Problems		Codominant at 7 feet. 7 inch low lateral 12 inches east side. Canopy leans east	9/16/2020
53	Yes		Quercus wislizeni	Interior live oak	5		54	5	3 Fair - Minor Problems		Suppressed	9/16/2020
54	Yes		Quercus wislizeni	Interior live oak	27.5		12	25	3 Fair - Minor Problems		Codominant at 24 inches. Vigor good	9/16/2020
55	Yes		Quercus douglasii	Blue oak	5		54	5	3 Fair - Minor Problems		Suppressed	9/16/2020
56	Yes		Quercus wislizeni	Interior live oak	7		54	12	3 Fair - Minor Problems		Codominant at 4 feet.	9/16/2020
57			Ligustrum lucidum	Privet	3		54	5	2 Major Structure or Health Problems		Suppressed canopy leans severely north. Included on topo map	9/16/2020



Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
58			Morus alba	Mulberry	9		12	12	2 Major Structure or Health Problems		Die back in canopy signs of stress.	9/16/2020
59	Yes		Quercus wislizeni	Interior live oak	9	4,3,2	54	10	3 Fair - Minor Problems		Codominant at ground.	9/16/2020
60	Yes		Quercus douglasii	Blue oak	9	7,7	54	12	3 Fair - Minor Problems		codominant at base canopy leans North	9/16/2020
61	Yes		Quercus wislizeni	Interior live oak	12		24	15	3 Fair - Minor Problems		Codominant at 36 inches. Canopy leans south over shed	9/16/2020
62	Yes		Quercus wislizeni	Interior live oak	13		12	15	3 Fair - Minor Problems		Codominant at 24 inches. With inclusion. Southside of canopy over shed	9/16/2020
63	Yes		Quercus wislizeni	Interior live oak	8		54	8	3 Fair - Minor Problems		Suppressed canopy leans east. Southside of canopy over shed	9/16/2020
64	Yes		Quercus wislizeni	Interior live oak	25		12	20	3 Fair - Minor Problems		Codominant at 12 inches with inclusion. One sided canopy west	9/16/2020
65	Yes		Quercus wislizeni	Interior live oak	30		12	25	3 Fair - Minor Problems		Poor taper. Codominant at 24 inches. Inclusion seam. One sided canopy east	9/16/2020
66	Yes		Quercus wislizeni	Interior live oak	23		48	18	3 Fair - Minor Problems		Codominant at 4 feet. With inclusion	9/16/2020
67			Ficus carica	Fig	5		54	6	3 Fair - Minor Problems		Topped to height of 7 feet.	9/16/2020
68			Prunus	Cherry	13	7,6,6,5,5,4	54	15	3 Fair - Minor Problems		Multi-stem at ground 6 stems. Vigor good	9/16/2020

Consulting Arborist Page **14** of **34** 

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
69	Yes		Quercus wislizeni	Interior live oak	23	20,12.5	54	20	1 Extreme Structure or Health Problems		Codominant at 24 inches. Severe inclusion. Two northern stems failed laying on ground. Remaining two stems one sided leaning canopy south. Recommend remoValley oak	9/16/2020
70	Yes		Quercus wislizeni	Interior live oak	45		36	35	3 Fair - Minor Problems		Trunk at Fenceline east side. Codominant at 5 feet. Trunk located in between two garage structures. Canopy is growing on top of roofs.	9/16/2020
71	Yes		Quercus wislizeni	Interior live oak	26		36	40	1 Extreme Structure or Health Problems		26 inch stem. separation from parent tree. Severe lean north making contact with garage building.	9/16/2020
72		Yes	Quercus wislizeni	Interior live oak	9		12	10	2 Major Structure or Health Problems		Offsite trunk at Fenceline west side. Canopy overhang Fenceline 10 feet east.	9/16/2020
73	No	Yes	Quercus douglasii	Blue oak	5		54	6	2 Major Structure or Health Problems		Offsite trunk is at fence west side. Canopy overhangs fence line 5 feet east	9/16/2020
74	Yes	Yes	Quercus wislizeni	Interior live oak	7	6,5	54	15	3 Fair - Minor Problems		Offsite. Trunk is at Fenceline west side. Eastern stem grew through fence over to property line. Canopy overhangs Fenceline 10 feet east	9/16/2020
75	Yes	Yes	Quercus wislizeni	Interior live oak	8		24	12	3 Fair - Minor Problems		Offsite trunk is 18 inches west of Fenceline. Canopy overhang Fenceline 10 feet east	9/16/2020
76	Yes		Quercus wislizeni	Interior live oak	15		36	15	3 Fair - Minor Problems		Codominant at 36 inches. Significant inclusion	9/16/2020

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
77	Yes	Yes	Quercus wislizeni	Interior live oak	22	12,12,12,12,8	54	18	3 Fair - Minor Problems		Offsite. Trunk is at fence west side. One stem leans over a fence line. Canopy leans over fence line 12 feet east	9/16/2020
78	Yes		Quercus wislizeni	Interior live oak	14		54	12	3 Fair - Minor Problems		Trunk at fence Eastside	9/16/2020
79	Yes	Yes	Quercus wislizeni	Interior live oak	7	4,4,4,2,2,2	54	10	2 Major Structure or Health Problems		Offsite. Trunk is at Fenceline west side. Canopy overhangs Fenceline 6 feet east	9/16/2020
80	Yes	Yes	Quercus wislizeni	Interior live oak	25	13,11,11,11,10	54	20	3 Fair - Minor Problems		Offsite trunk is 2 feet west of Fenceline. Canopy overhang Fenceline 15 feet east. Codominant at 4 feet with inclusion.	9/16/2020
81			Pinus pinea	Italian stone pine	21		54	30	2 Major Structure or Health Problems		trunk is at Fenceline east side. Suppression growth codominant at 6ft. 36 inches of inclusion. Trunk and canopy lean severely south west	9/16/2020
82	Yes	Yes	Quercus wislizeni	Interior live oak	10	8,6	54	10	3 Fair - Minor Problems		Offsite trunk is 2 feet west o eastf Fenceline. Canopy overhang Fenceline 8 feet	9/16/2020
83		Yes	Albizia julibrissin	Silk tree	6		54	12	3 Fair - Minor Problems		Offsite trunk is 18 inches our Fenceline west side. Suppressed trunk and Canopy Ln., West. Canopy is 10 feet over Fenceline West	9/16/2020
84			Ligustrum Iucidum	Privet			54	8	2 Major Structure or Health Problems		3 Privet Clusters. Approx 50 stems 1"-5"dbh. Topped for power line clearance	9/16/2020
85			Koelreuteria paniculata	Golden Rain tree	16	8,8,6,6,4,4,4,2,2,2	54	15	2 Major Structure or Health Problems		Multi-stem at base. Stems are Stump sprouts from failed tree. Topped for power line clearance	9/16/2020



Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
86			Arbutus marina	Strawberry tree	6		54	10	2 Major Structure or Health Problems		Topped for powerline. Trunk and canopy leaning north	9/16/2020
87			Afrocarpus falcatus	Podocarpus	6	3,3,3,3,2,2,2	54	6	2 Major Structure or Health Problems		Multi stem ground growing under power lines	9/16/2020
88			Fraxinus velutina	Modesto Ash	17		54	25	3 Fair - Minor Problems		Codominant at 5 feet with inclusion. Above average die back in lower canopy. Open 5 inch pruning wound south at 5 feet	9/16/2020
89	Yes		Quercus wislizeni	Interior live oak	31		12	15	3 Fair - Minor Problems		Codominant at 36 inches with inclusion vigor good	9/16/2020
90			Zelkova serrata	Sawleaf Zelkova	7		54	12	3 Fair - Minor Problems		Codominant at 7 feet.	9/16/2020
91			Albizia julibrissin	Silk tree	8.5	6,6	54	20	2 Major Structure or Health Problems		Codominant at ground inclusion week atachments.	9/16/2020
92	Yes		Quercus wislizeni	Interior live oak	12		48	12	3 Fair - Minor Problems		Codominant at 5 feet	9/16/2020
93				Privet	5	3,3,2	54	5	3 Fair - Minor Problems		Codominant at base	9/16/2020
94	Yes		Quercus Iobata	Valley oak	16		54	20	3 Fair - Minor Problems		Codominant at 12 feet. Trunk and canopy lean north west	9/16/2020
95	Yes		Quercus wislizeni	Interior live oak	16		54	18	3 Fair - Minor Problems		Codominant at 6 feet suppressed trunk and canopy lean west	9/16/2020

Consulting Arborist Page **17** of **34** 

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
96			Carya illinoinensis	Pecan	9		54		3 Fair - Minor Problems		codominant at 10 feet.	9/16/2020
97	Yes	Yes	Quercus Iobata	Valley oak	26.5		48	30	2 Major Structure or Health Problems		located south side of driveway easement. Codominant at 9 feet. Topped for power line clearance. Overextended unbalanced to the north.	9/16/2020
98	Yes	Yes	Quercus wislizeni	Interior live oak	18.5		48	15	2 Major Structure or Health Problems		located south side of driveway easement. Topped for power line clearance.	9/16/2020
99	Yes	Yes	Quercus wislizeni	Interior live oak	24		54	24	3 Fair - Minor Problems		located northside of driveway easement	9/16/2020
100	Yes	Yes	Quercus wislizeni	Interior live oak	25		36	20	3 Fair - Minor Problems		located northside of driveway easement	9/16/2020
1001	Yes	Yes	Quercus wislizeni	Interior live oak	16		54	18	3 Fair - Minor Problems		Offsite trunk is at Fenceline East side. Canopy overhangs Fenceline 18 feet west	9/16/2020
1002		Yes	Quercus wislizeni	Interior live oak	12	6,6,5,5,4,4	54	10	3 Fair - Minor Problems		Offsite trunk is 1 foot east of Fenceline. Canopy overhang Fenceline 8 feet west	9/16/2020
1003		Yes	Ligustrum lucidum	Privet			54	10	3 Fair - Minor Problems		Approx 85 stems 1"-6"dbh Privet hedge.Trunks of privet hedge are 3 feet east of Fenceline offsite. Canopy overhangs Fenceline maximum 8ft	9/16/2020
1004	Yes	Yes	Quercus wislizeni	Interior live oak	16		54	12	3 Fair - Minor Problems		Offsite trunk is 1 foot east of Fenceline. Canopy overhangs Fenceline 10 feet west	9/16/2020
1005		Yes	Ligustrum Iucidum	Privet			54	5	3 Fair - Minor Problems		Approx 35 stems 1"-3"2dbh. Stems are at Fenceline east side canopy overhangs Fenceline 4 feet west side	9/16/2020



Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1006	Yes	Yes	Quercus wislizeni	Interior live oak	9		54	10	3 Fair - Minor Problems		Offsite no tag. Trunk growing on the fence line east. Trunk leans over property line west. Canopy overhangs property line 10 feet west	9/16/2020
1007	Yes	Yes	Quercus wislizeni	Interior live oak	6	5,3,3	54	12	3 Fair - Minor Problems		Offsite no tag trunk growing at Fenceline east side. Trunks lean over property line west. Canopy overhangs property line 12 feet west.	9/16/2020
1008	Yes	Yes	Quercus douglasii	Blue oak	11		54	20	3 Fair - Minor Problems		Offsite no tag. Trunk growing at fence line east side. Trunk leans into property line. Canopy overhangs property line 20 feet west	9/16/2020
1009	Yes	Yes	Quercus wislizeni	Interior live oak	17		54	20	3 Fair - Minor Problems		Offsite no tag. trunk is 12 feet east of Fenceline. Canopy overhang Fenceline 6 feet	9/16/2020
1010	Yes	Yes	Quercus wislizeni	Interior live oak	8		54	15	3 Fair - Minor Problems		Offsite no tag. Trunk is growing at Fenceline east side. Canopy overhangs 8ft	9/16/2020
1011	Yes	Yes	Quercus wislizeni	Interior live oak	8		54	15	3 Fair - Minor Problems		Offsite no tag. Trunk is located 1 foot east fence line. Canopy overhangs fence line 15 feet west	9/16/2020
1012	Yes	Yes	Quercus Iobata	Valley oak	7		54	10	3 Fair - Minor Problems		Off site no tag. trunk is located 18 inches east of fence line	9/16/2020
1013	Yes	Yes	Quercus Iobata	Valley oak	11		54	10	3 Fair - Minor Problems		Offsite no tag. Trunk is at Fenceline east side. Canopy overhangs fence line 6 feet west	9/16/2020
1014	Yes	Yes	Quercus lobata	Valley oak	12		54	15	3 Fair - Minor Problems		Offsite no tag. Trunk is 6 feet east of Fenceline. Canopy overhang Fenceline 10 feet west	9/16/2020

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1015	Yes	Yes	Quercus wislizeni	Interior live oak	10		54	12	3 Fair - Minor Problems		Offsite no tag. trunk is 6 feet east of Fenceline. Canopy overhangs Fenceline west 8 feet.	9/16/2020
1016	Yes	Yes	Quercus wislizeni	Interior live oak	26		36	20	3 Fair - Minor Problems		Offsite no tag. Trunk is 7 feet west of Fenceline. Canopy overhangs Fenceline 6 feet east	9/16/2020
1017	Yes	Yes	Quercus wislizeni	Interior live oak	32		36	25	3 Fair - Minor Problems		Offsite no tag. Trunk is 6 feet west of fence line. Canopy overhangs Fenceline 10 feet east	9/16/2020
1018	Yes	Yes	Quercus wislizeni	Interior live oak	40		54	40	3 Fair - Minor Problems		Offsite no tag. Trunk is 4 feet off of the south west corner of property. Canopy extends over Fenceline 20 feet north east	9/16/2020
1019			Prunus	Plum	16		36	12	2 Major Structure or Health Problems		Offsite. Trunk is at Fenceline Southside. Canopy overhangs fence line 7 feet north. Codominant at 4 feet. Multiple breaks hanging in canopy Eastside	9/16/2020
1020		Yes	Malus domestica	Apple	6		36	10	3 Fair - Minor Problems		5' from dirt road. good vigor.	6/7/2022
1021		Yes	Malus domestica	Apple	6		36	10	3 Fair - Minor Problems		12' from dirt road. good vigor.	6/7/2022
1022		Yes	Malus domestica	Apple	12		12	15	3 Fair - Minor Problems		15' from dirt road. good vigor.	6/7/2022
1023		Yes	Quercus wislizeni	Interior Live Oak	5		12	13	3 Fair - Minor Problems		15' from dirt road. good structure and vigor.	6/7/2022
1024		Yes	Prunus persica	Nectarine	6		12	8	3 Fair - Minor Problems		12' from dirt road. good structure and vigor.	6/7/2022



Consulting Arborist Page **20** of **34** 

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1025		Yes	Malus domestica	Apple	5		24	9	3 Fair - Minor Problems		10' from dirt road. good structure and vigor.	6/7/2022
1026		Yes	Lagerstroemia indica	Crape Myrtle	4		54	9	3 Fair - Minor Problems		8' from dirt road. good structure and vigor.	6/7/2022
1027		Yes	Cypress sp.	Cypress	8		54	15	3 Fair - Minor Problems		good vigor. 2 canopy limbs lean north over dirt road.	6/7/2022
1300		Yes	Quercus Iobata	Valley Oak	27		54	34	3 Fair - Minor Problems		good base. codominate at 15'. leans north. south canopy pruned for power lines. canopy to ground north. good vigor.	6/7/2022
1361		Yes	Quercus wislizeni	Interior Live Oak	18		12	20	3 Fair - Minor Problems		good base. codominate at 3'. leans slightly south. 8' from existing road.	6/7/2022
1362		Yes	Quercus wislizeni	Interior Live Oak	4		54	15	2 Major Structure or Health Problems		poor understory structure, heavy lean south, poor trunk taper. fair vigor.	6/7/2022
1363		Yes	Quercus Iobata	Valley Oak	4		54	13	2 Major Structure or Health Problems		poor understory structure, leans southwest, poor trunk taper. moderate branch die back. low vigor.	6/7/2022
1364		Yes	Quercus wislizeni	Interior Live Oak	7		54	16	3 Fair - Minor Problems		understory, fair structure. good vigor.	6/7/2022
1365		Yes	Quercus wislizeni	Interior Live Oak	7		54	15	3 Fair - Minor Problems		good base. fair structure and vigor. low small dead branches.	6/7/2022
1366		Yes	Quercus wislizeni	Interior Live Oak	5.5		54	9	2 Major Structure or Health Problems		good base. poor understory structure. sparse foliage. branch die back. low vigor.	6/7/2022

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1367		Yes	Quercus douglasii	Blue Oak	10		54	15	3 Fair - Minor Problems		good base, structure and vigor.	6/7/2022
1368		Yes	Quercus Iobata	Valley Oak	10.5		54	18	3 Fair - Minor Problems		good base, structure and vigor.	6/7/2022
1369		Yes	Quercus douglasii	Blue Oak	4		54	6	3 Fair - Minor Problems		good base, structure and vigor.	6/7/2022
1370		Yes	Quercus wislizeni	Interior Live Oak	6		54	16	2 Major Structure or Health Problems		unbalanced base and canopy southwest. poor understory structure, poor branch structure. low vigor.	6/7/2022
1371		Yes	Prunus dulcis	Almond	8		54	8	2 Major Structure or Health Problems		decayed flush cut on lower trunk south at 3'. high amount of dead branches. low vigor.	6/7/2022
1372		Yes	Quercus Iobata	Valley Oak	6.5		54	7	2 Major Structure or Health Problems		growing directly next to adjacent Interior Live Oak. poor trunk taper. sparse branching and foliage. low vigor.	6/7/2022
1373		Yes	Quercus wislizeni	Interior Live Oak	6		54	9	3 Fair - Minor Problems		growing directly next to adjacent Valley Oak. fair structure and vigor.	6/7/2022
1374		Yes	Quercus wislizeni	Interior Live Oak	15		54	19	3 Fair - Minor Problems		good base, structure and vigor. codominate at 8'.	6/7/2022
1375		Yes	Quercus wislizeni	Interior Live Oak	7		12	12	2 Major Structure or Health Problems		codominate at 1'. poor structure, rubbing adjacent canopies. sparse foliage. low vigor.	6/7/2022
1376		Yes	Quercus wislizeni	Interior Live Oak	11.5		54	16	3 Fair - Minor Problems		good base, structure and vigor. one sided south.	6/7/2022

Consulting Arborist Page 22 of 34

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1377		Yes	Quercus wislizeni	Interior Live Oak	5		54	13	2 Major Structure or Health Problems		fair base. poor understory structure, poor branching. sparse/damaged foliage. low vigor.	6/7/2022
1378		Yes	Quercus douglasii	Blue Oak	4		54	13	3 Fair - Minor Problems		good base, structure and vigor. understory tree.	6/7/2022
1379		Yes	Quercus wislizeni	Interior Live Oak	14		54	21	3 Fair - Minor Problems		good base, structure and vigor. leans heavy southwest.	6/7/2022
1380		Yes	Quercus Iobata	Valley Oak	11		54	17	3 Fair - Minor Problems		good base. fair structure and vigor.	6/7/2022
1381		Yes	Quercus Iobata	Valley Oak	35		36	38	3 Fair - Minor Problems		good base, structure and vigor.	6/7/2022
1382		Yes	Quercus wislizeni	Interior Live Oak	5.5		54	16	3 Fair - Minor Problems		good base. poor structure, leans heavy east. fair vigor.	6/7/2022
1383		Yes	Quercus lobata	Valley Oak	15		54	16	2 Major Structure or Health Problems		good base. poor structure, topped for powerlines.	6/7/2022
1384		Yes	Juglans nigra	Black Walnut	15		54	16	2 Major Structure or Health Problems		good base. topped for power lines. 2 medium branches hanging over the road.	6/7/2022
1385		Yes	Quercus wislizeni	Interior Live Oak	14	11.5, 8	54	14	2 Major Structure or Health Problems		codominate at grade. topped for powerlines. high amount of epicormic growth. poor structure and vigor.	6/7/2022
1386		Yes	Quercus Iobata	Valley Oak	16.5		54	35	2 Major Structure or Health Problems		fair base. heavy lean south away from dirt road. sparse foliage. pruned for powerlines. low vigor.	6/7/2022

Consulting Arborist Page 23 of 34

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
1387		Yes	Quercus Iobata	Valley Oak	20		54	30	3 Fair - Minor Problems		good base. fair structure, south mid branches pruned for powerlines. good vigor.	6/7/2022
1388		Yes	Quercus Iobata	Valley Oak	15.5		54	30	3 Fair - Minor Problems		good base. unbalanced canopy east. good vigor.	6/7/2022
1389		Yes	Juglans nigra	Black Walnut	7		54	8	1 Extreme Structure or Health Problems		extensive decay throughout. low vigor.	6/7/2022
1390		Yes	Juglans nigra	Black Walnut	6		54	6	1 Extreme Structure or Health Problems		extensive decay throughout. dead canopy. low vigor.	6/7/2022
1391		Yes	Quercus Iobata	Valley Oak	8		54	6	3 Fair - Minor Problems		good base, structure and vigor.	6/7/2022
1392		Yes	Quercus Iobata	Valley Oak	12	9, 9	54	24	3 Fair - Minor Problems		tag on wooden fence 5' to the south next to dirt road. cosom at 1'. good structure and vigor.	6/7/2022
1393		Yes	Quercus Iobata	Valley Oak	26		54	38	2 Major Structure or Health Problems		good base. tapped north canopy for powerlines. heavy overextended canopy stem south. fair vigor.	6/7/2022
1394		Yes	Quercus wislizeni	Interior Live Oak	10		54	15	1 Extreme Structure or Health Problems		swollen base. pockets of decay throughout tree. poor structure, understory. high amount of dead branches. low vigor.	6/7/2022
1395		Yes	Quercus Iobata	Valley Oak	17		54	24	3 Fair - Minor Problems		tag south. leans slightly east. good structure and vigor.	6/7/2022
1396		Yes	Quercus Iobata	Valley Oak	13		12	13	3 Fair - Minor Problems		tag south. codominate at 2'. good structure and vigor. low small branches	6/7/2022

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
											encroaching on dirt road to the south.	
1397		Yes	Quercus douglasii	Blue Oak	13.5		54	30	1 Extreme Structure or Health Problems		base grafted to adjacent Valley Oak. trunk wrapping around adjacent trees canopy limb 90 degrees, extensive decay at location. heavy lean north over dirt road. low vigor.	6/7/2022
1398		Yes	Quercus Iobata	Valley Oak	28.5		54	30	2 Major Structure or Health Problems		Blue Oak grafted to west base. topped for powerlines. long overextended canopy branches all around. poor structure, low vigor.	6/7/2022
1399		Yes	Quercus Iobata	Valley Oak	23.5		54	28	3 Fair - Minor Problems		good base, structure and vigor. 5' from road. south canopy pruned for powerlines.	6/7/2022
1400		Yes	Quercus lobata	Valley Oak	14		24	15	2 Major Structure or Health Problems		good base, codominate at 4'. high amount of epicormic growth. broken canopy tops. fair vigor.	6/7/2022
3335	Yes	Yes	Quercus wislizeni	Interior live Oak	19		54	20	3 Fair - Minor Problems		located northside of driveway easement. codominant at 7ft	9/16/2020
8462	Yes	Yes	Quercus wislizeni	Interior live Oak	24	19,15	36	25	2 Major Structure or Health Problems	1', 3 la over tl small c cavitie long o	fence north. good base. multi stem a rge stems. canopy pruned many time ne years for powerlines directly abov dead branches and small/medium is throughout tree from branch failer verextended 16" lateral west 10' high treet by	7/12/2022
8643	Yes	Yes	Quercus wislizeni	Interior live Oak	35		12	30	2 Major Structure or Health Problems		tag on fence north. good base. multi stem at 1', 3 large stems. canopy pruned many times over the years for powerlines directly above. small dead branches and	



Consulting Arborist Page **25** of **34** 

Field Tag #	Protected By Code	Off- site	Species Botanical Name	Species Common Name	DBH (in.)	Multi-Stems	Measured at (in.)	Canopy Radius (ft.)	Arborist Rating	Dvlpmt Status	Field Notes	Date of Evaluations
											small/medium cavities throughout tree from branch failers. long overextended 16" lateral west 10' high over street by 25'	

CalTLC Consulting Arborist Page **26** of **34** 

# **APPENDIX 3**

# **GENERAL PRACTICES FOR TREE PROTECTION**

# **Definitions**

<u>Root zone</u>: The roots of trees grow fairly close to the surface of the soil, and spread out in a radial direction from the trunk of tree. A general rule of thumb is that they spread 2 to 3 times the radius of the canopy, or 1 to 1 ½ times the height of the tree. It is generally accepted that disturbance to root zones should be kept as far as possible from the trunk of a tree.

<u>Inner Bark</u>: The bark on large valley oaks and coast live oaks is quite thick, usually 1" to 2". If the bark is knocked off a tree, the inner bark, or cambial region, is exposed or removed. The cambial zone is the area of tissue responsible for adding new layers to the tree each year, so by removing it, the tree can only grow new tissue from the edges of the wound. In addition, the wood of the tree is exposed to decay fungi, so the trunk present at the time of the injury becomes susceptible to decay. Tree protection measures require that no activities occur which can knock the bark off the trees.

# **Methods Used in Tree Protection:**

No matter how detailed Tree Protection Measures are in the initial Arborist Report, they will not accomplish their stated purpose unless they are applied to individual trees and a Project Arborist is hired to oversee the construction. The Project Arborist should have the ability to enforce the Protection Measures. The Project Arborist should be hired as soon as possible to assist in design and to become familiar with the project. He must be able to read and understand the project drawings and interpret the specifications. He should also have the ability to cooperate with the contractor, incorporating the contractor's ideas on how to accomplish the protection measures, wherever possible. It is advisable for the Project Arborist to be present at the Pre-Bid tour of the site, to answer questions the contractors may have about Tree Protection Measures. This also lets the contractors know how important tree preservation is to the developer.

Root Protection Zone (RPZ): Since in most construction projects it is not possible to protect the entire root zone of a tree, a Root Protection Zone is established for each tree to be preserved. The minimum Root Protection Zone is the area underneath the tree's canopy (out to the dripline, or edge of the canopy), plus 10'. The Project Arborist must approve work within the RPZ.

<u>Irrigate, Fertilize, Mulch</u>: Prior to grading on the site near any tree, the area within the Tree Protection fence should be fertilized with 4 pounds of nitrogen per 1000 square', and the fertilizer irrigated in. The irrigation should percolate at least 24" into the soil. This should be done no less than 2 weeks prior to grading or other root disturbing activities. A'er irrigating, cover the RPZ with at least 12" of leaf and twig mulch. Such mulch can be obtained from chipping or grinding the limbs of any trees removed on the site. Acceptable mulches can be obtained from nurseries or other commercial sources. Fibrous or shredded redwood or cedar bark mulch shall not be used anywhere on site.

<u>Fence</u>: Fence around the Root Protection Zone and restrict activity therein to prevent soil compaction by vehicles, foot traffic or material storage. The fenced area shall be off limits to all construction equipment, unless there is express written notification provided by the Project Arborist, and impacts are discussed and mitigated prior to work commencing.



CalTLC Consulting Arborist Page **27** of **34** 

No storage or cleaning of equipment or materials, or parking of any equipment can take place within the fenced off area, known as the RPZ.

The fence should be highly visible, and stout enough to keep vehicles and other equipment out. I recommend the fence be made of orange plastic protective fencing, kept in place by t-posts set no farther apart than 6'.

In areas of intense impact, a 6' chain link fence is preferred.

In areas with many trees, the RPZ can be fenced as one unit, rather than separately for each tree.

Where tree trunks are within 3' of the construction area, place 2" by 4" boards vertically against the tree trunks, even if fenced off. Hold the boards in place with wire. Do not nail them directly to the tree. The purpose of the boards is to protect the trunk, should any equipment stray into the RPZ.

<u>Elevate Foliage</u>: Where indicated, remove lower foliage from a tree to prevent limb breakage by equipment. Low foliage can usually be removed without harming the tree, unless more than 25% of the foliage is removed. Branches need to be removed at the anatomically correct location in order to prevent decay organisms from entering the trunk. For this reason, a contractor who is an ISA Certified Arborist should perform all pruning on protected trees.<sup>2</sup>

Expose and Cut Roots: Breaking roots with a backhoe, or crushing them with a grader, causes significant injury, which may subject the roots to decay. Ripping roots may cause them to splinter toward the base of the tree, creating much more injury than a clean cut would make. At any location where the root zone of a tree will be impacted by a trench or a cut (including a cut required for a fill and compaction), the roots shall be exposed with either a backhoe digging radially to the trunk, by hand digging, or by a hydraulic air spade, and then cut cleanly with a sharp instrument, such as chainsaw with a carbide chain. Once the roots are severed, the area behind the cut should be moistened and mulched. A root protection fence should also be erected to protect the remaining roots, if it is not already in place. Further grading or backhoe work required outside the established RPZ can then continue without further protection measures.

<u>Protect Roots in Deeper Trenches:</u> The location of utilities on the site can be very detrimental to trees. Design the project to use as few trenches as possible, and to keep them away from the major trees to be protected. Wherever possible, in areas where trenches will be very deep, consider boring under the roots of the trees, rather than digging the trench through the roots. This technique can be quite useful for utility trenches and pipelines.

<u>Protect Roots in Small Trenches:</u> A'er all construction is complete on a site, it is not unusual for the landscape contractor to come in and sever a large number of "preserved" roots during the installation of irrigation systems. The Project Arborist must therefore approve the landscape and irrigation plans. The irrigation system needs to be designed so the main lines are located outside the root zone of major trees, and the secondary lines are either laid on the surface (drip systems), or carefully dug with a hydraulic or air spade, and the flexible pipe fed underneath the major roots.

<sup>&</sup>lt;sup>2</sup> International Society of Arboriculture (ISA), maintains a program of Certifying individuals. Each Certified Arborist has a number and must maintain continuing education credits to remain Certified.



CaITLC Consulting Arborist Page 28 of 34

Design the irrigation system so it can slowly apply water (no more than ¼" to ½" of water per hour) over a longer period of time. This allows deep soaking of root zones. The system also needs to accommodate infrequent irrigation settings of once or twice a month, rather than several times a week.

Monitoring Tree Health During and A'er Construction: The Project Arborist should visit the site at least twice a month during construction to be certain the tree protection measures are being followed, to monitor the health of impacted trees, and make recommendations as to irrigation or other needs. A'er construction is complete, the arborist should monitor the site monthly for one year and make recommendations for care where needed. If longer term monitoring is required, the arborist should report this to the developer and the planning agency overseeing the project.

# APPENDIX 4 SITE PHOTOGRAPHS



Photo 1. View North from Northeast corner of parcel.



Photo 2. View West from Southeast corner of property.

CalTLC Consulting Arborist Page **30** of **34** 



Photo 3. View North from Southeast side of parcel.



Photo 4. View West from Southeast corner of parcel.



Photo 5. View Southwest from east side of parcel.



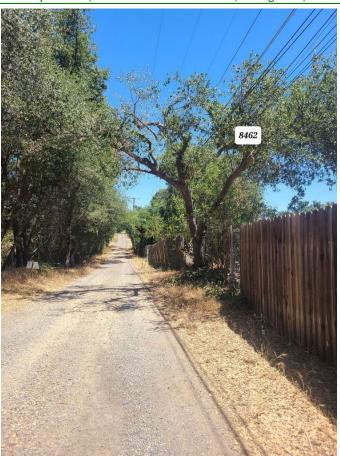
Photo 6. Tree #69. Failure of northern stem

CalTLC Consulting Arborist Page **32** of **34** 



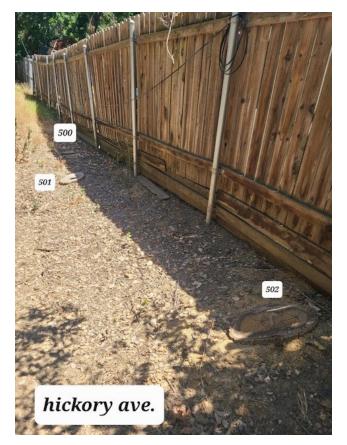
Photo 7 and 8. Trees #70 and 71. Showing proximity to existing structures







Above: Overhanging off-site trees on driveway easement. Right: Stumps along driveway easement.





Consulting Arborist Page **34** of **34**