July 18, 2022
Jerel Olimpiada
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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 $16^{\text {th }}, 2020$ 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 ${ }^{1}$ | 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 ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | - | - |

[^0]
## See Appendices for specific information on each tree and additional preservation requirements and/or development restrictions

## Methods

Appendix B 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.

## Terms

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 Height above average ground level where the measurement of DBH was taken
at
Canopy The farthest extent of the crown composed of leaves and small twigs. Most trees are not evenly balanced.
radius and
Protection
Area

Critical Root
Zone

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' 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. and inspection.

| Arborist Ratings |  |  | Sacramento County Ratings |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| No problem(s) | Excellent | $\mathbf{5}$ | Excellent |
| No apparent problem(s) | Good | $\mathbf{4}$ | Good |
| Minor problem(s) | Fair | $\mathbf{3}$ | Fair |
| Major problem(s) | Fair to Poor | $\mathbf{2}$ | Declining |
| Extreme problem(s) | Poor | $\mathbf{1}$ | Severe Decline |
| Dead | Dead | $\mathbf{0}$ | Dead |

Rating \#0: This indicates a tree that has no significant sign of life.
Rating \#1: 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.
Rating \#3: 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.
Rating \#4: 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.
Rating \#5: 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 $6^{\prime \prime}$ to $3^{\prime}$ 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 $3^{\prime \prime}$ 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. 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

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## Appendix 2 - Tree Data

| Field <br> Tag <br> \# | Protected By Code | Offsite | Species Botanical Name | Species Common Name | DBH <br> (in.) | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Yes |  | Quercus lobata | Valley oak | 27.5 |  | 48 | 25 | 4 Good No <br> Apparent Problems |  | Codominant at 4 feet. Vigor good | 9/16/2020 |
| 2 |  |  | Malus fusca | Crab apple | 8 | 6,6 | 36 | 8 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> Minor <br> 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 - <br> 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 lobata | Valley oak | 21 |  | 54 | 25 | 4 Good No <br> Apparent Problems |  | Codominant at 15 feet. Callus bark Eastside at 24 inches. Vigor good | 9/16/2020 |


| Field <br> Tag <br> \# | Protected By Code | Offsite | Species Botanical Name | Species Common Name | DBH <br> (in.) | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | Yes |  | Quercus lobata | Valley oak | 21.5 |  | 54 | 20 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | Codominant at 6 feet. Growing at Fenceline | 9/16/2020 |
| 13 | Yes |  | Quercus lobata | Valley oak | 15 |  | 54 | 20 | 4 Good No <br> Apparent Problems |  | Growing at Fenceline west side. Codominant at 12 feet. <br> 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 <br> 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 - <br> 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 - <br> Minor Problems |  | Offsite. Tree growing at Fenceline north side. Canopy overhanging Fenceline 15 feet south | 9/16/2020 |

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| Field <br> Tag <br> \# | Protected By Code | Offsite | Species Botanical Name | Species <br> Common Name | DBH <br> (in.) | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | Yes | Yes | Quercus lobata | Valley oak | 7 |  | 54 | 12 | 3 Fair - <br> 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 - <br> 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 - <br> 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 lobata | Valley oak | 10 |  | 54 | 20 | 3 Fair - <br> Minor Problems |  | Offsite trunk is at Fenceline north side. Canopy overhang Fenceline 20 feet south | 9/16/2020 |
| 24 | Yes | Yes | Quercus lobata | Valley oak | 8 |  | 54 | 20 | 3 Fair - <br> Minor Problems |  | Offsite trunk is at Fenceline north side. Canopy overhang Fenceline 20 feet south | 9/16/2020 |
| 25 |  | Yes | Quercus lobata | Valley oak | 12 |  | 54 | 15 | 3 Fair - <br> Minor Problems |  | Offsite trunk is at Fenceline north side. Canopy overhangs Fenceline 10 feet south | 9/16/2020 |
| 26 | Yes | Yes | Quercus lobata | 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 |

CalTLC

| Field <br> Tag \# | Protected By Code | Offsite | Species Botanical Name | Species <br> Common Name | DBH <br> (in.) | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | No | Yes | Quercus douglasii | Blue oak | 4 |  | 54 | 6 | 3 Fair - <br> Minor Problems |  | Offsite. Trunk at Fenceline north side. Canopy overhangs Fenceline 6 feet south | 9/16/2020 |
| 28 | Yes | Yes | Quercus lobata | Valley oak | 21 | 16,14 | 54 | 20 | 4 Good No <br> 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 - <br> 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 lobata | Valley oak | 16 |  | 54 | 20 | 3 Fair - <br> 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 - <br> 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 lobata | Valley oak | 20 |  | 54 | 25 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | Offsite. Trunk is at Fenceline north side. Canopy | 9/16/2020 |


| Field <br> Tag \# | Protected By Code | Offsite | Species Botanical Name | Species Common Name | $\begin{aligned} & \text { DBH } \\ & \text { (in.) } \end{aligned}$ | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | overhangs Fenceline 12 feet south |  |
| 37 | Yes | Yes | Quercus douglasii | Blue oak | 8 |  | 54 | 8 | 3 Fair - <br> 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 - <br> Minor Problems |  | On bank of retention pond. Codominant at 2 ft | 9/16/2020 |
| 39 |  |  | Geijera parviflora | Australian willow |  |  | 54 | 10 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> 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 <br> Apparent Problems |  | At Fenceline east side. Codominant at 10 feet | 9/16/2020 |


| Field <br> Tag <br> \# | Protected By Code | Offsite | Species Botanical Name | Species <br> Common Name | DBH <br> (in.) | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 46 | Yes |  | Quercus wislizeni | Interior live oak | 4 |  | 54 | 6 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | Codominant at 10 feet. | 9/16/2020 |
| 51 |  |  | Platanus x hispanica | London plane | 19 |  | 36 | 25 | 3 Fair - <br> Minor Problems |  | codominant at 5 feet. Flat trunk at codominant | 9/16/2020 |
| 52 |  |  | Platanus $x$ hispanica | London plane | 15 |  | 36 | 25 | 3 Fair - <br> 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 - <br> Minor Problems |  | Suppressed | 9/16/2020 |
| 54 | Yes |  | Quercus wislizeni | Interior live oak | 27.5 |  | 12 | 25 | 3 Fair - <br> Minor Problems |  | Codominant at 24 inches. Vigor good | 9/16/2020 |
| 55 | Yes |  | Quercus douglasii | Blue oak | 5 |  | 54 | 5 | 3 Fair - <br> Minor Problems |  | Suppressed | 9/16/2020 |
| 56 | Yes |  | Quercus wislizeni | Interior live oak | 7 |  | 54 | 12 | 3 Fair - <br> 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 |


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| 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 - <br> Minor Problems |  | Codominant at ground. | 9/16/2020 |
| 60 | Yes |  | Quercus douglasii | Blue oak | 9 | 7,7 | 54 | 12 | 3 Fair - <br> Minor Problems |  | codominant at base canopy leans North | 9/16/2020 |
| 61 | Yes |  | Quercus wislizeni | Interior live oak | 12 |  | 24 | 15 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | Codominant at 4 feet. With inclusion | 9/16/2020 |
| 67 |  |  | Ficus carica | Fig | 5 |  | 54 | 6 | 3 Fair - <br> 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 - <br> Minor Problems |  | Multi-stem at ground 6 stems. Vigor good | 9/16/2020 |

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| 69 | Yes |  | Quercus wislizeni | Interior live oak | 23 | 20,12.5 | 54 | 20 | $1$ <br> 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 - <br> 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 | $1$ <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | Codominant at 36 inches. Significant inclusion | 9/16/2020 |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 77 | Yes | Yes | Quercus wislizeni | Interior live oak | 22 | 12,12,12,12,8 | 54 | 18 | 3 Fair - <br> 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 - <br> 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 - <br> 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 6 ft .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 - <br> 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 - <br> 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 lucidum | 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 |


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| 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 - <br> 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 - <br> Minor Problems |  | Codominant at 36 inches with inclusion vigor good | 9/16/2020 |
| 90 |  |  | Zelkova serrata | Sawleaf Zelkova | 7 |  | 54 | 12 | 3 Fair - <br> 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 - <br> Minor Problems |  | Codominant at 5 feet | 9/16/2020 |
| 93 |  |  |  | Privet | 5 | 3,3,2 | 54 | 5 | 3 Fair - <br> Minor Problems |  | Codominant at base | 9/16/2020 |
| 94 | Yes |  | Quercus lobata | Valley oak | 16 |  | 54 | 20 | 3 Fair - <br> Minor Problems |  | Codominant at 12 feet. <br> Trunk and canopy lean north west | 9/16/2020 |
| 95 | Yes |  | Quercus wislizeni | Interior live oak | 16 |  | 54 | 18 | 3 Fair - <br> Minor Problems |  | Codominant at 6 feet suppressed trunk and canopy lean west | 9/16/2020 |

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| 96 |  |  | Carya illinoinensis | Pecan | 9 |  | 54 |  | 3 Fair - <br> Minor Problems |  | codominant at 10 feet. | 9/16/2020 |
| 97 | Yes | Yes | Quercus lobata | 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 - <br> Minor Problems |  | located northside of driveway easement | 9/16/2020 |
| 100 | Yes | Yes | Quercus wislizeni | Interior live oak | 25 |  | 36 | 20 | 3 Fair - <br> Minor Problems |  | located northside of driveway easement | 9/16/2020 |
| 1001 | Yes | Yes | Quercus wislizeni | Interior live oak | 16 |  | 54 | 18 | 3 Fair - <br> 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 - <br> 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 - <br> 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 8 ft | 9/16/2020 |
| 1004 | Yes | Yes | Quercus wislizeni | Interior live oak | 16 |  | 54 | 12 | 3 Fair - <br> Minor Problems |  | Offsite trunk is 1 foot east of Fenceline. Canopy overhangs Fenceline 10 feet west | 9/16/2020 |
| 1005 |  | Yes | Ligustrum lucidum | Privet |  |  | 54 | 5 | 3 Fair - <br> Minor Problems |  | Approx 35 stems 1"-3"?dbh. Stems are at Fenceline east side canopy overhangs Fenceline 4 feet west side | 9/16/2020 |


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| 1006 | Yes | Yes | Quercus wislizeni | Interior live oak | 9 |  | 54 | 10 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | Offsite no tag. Trunk is growing at Fenceline east side. Canopy overhangs 8 ft | 9/16/2020 |
| 1011 | Yes | Yes | Quercus wislizeni | Interior live oak | 8 |  | 54 | 15 | 3 Fair - <br> 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 lobata | Valley oak | 7 |  | 54 | 10 | 3 Fair - <br> Minor Problems |  | Off site no tag. trunk is located 18 inches east of fence line | 9/16/2020 |
| 1013 | Yes | Yes | Quercus lobata | Valley oak | 11 |  | 54 | 10 | 3 Fair - <br> 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 - <br> Minor Problems |  | Offsite no tag. Trunk is 6 feet east of Fenceline. Canopy overhang Fenceline 10 feet west | 9/16/2020 |


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| 1015 | Yes | Yes | Quercus wislizeni | Interior live oak | 10 |  | 54 | 12 | 3 Fair - <br> 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 - <br> 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | 5' from dirt road. good vigor. | 6/7/2022 |
| 1021 |  | Yes | Malus domestica | Apple | 6 |  | 36 | 10 | 3 Fair - <br> Minor Problems |  | 12' from dirt road. good vigor. | 6/7/2022 |
| 1022 |  | Yes | Malus domestica | Apple | 12 |  | 12 | 15 | 3 Fair - <br> Minor Problems |  | 15' from dirt road. good vigor. | 6/7/2022 |
| 1023 |  | Yes | Quercus wislizeni | Interior Live Oak | 5 |  | 12 | 13 | 3 Fair - <br> Minor Problems |  | 15' from dirt road. good structure and vigor. | 6/7/2022 |
| 1024 |  | Yes | Prunus persica | Nectarine | 6 |  | 12 | 8 | 3 Fair - <br> Minor Problems |  | 12' from dirt road. good structure and vigor. | 6/7/2022 |

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| 1025 |  | Yes | Malus domestica | Apple | 5 |  | 24 | 9 | 3 Fair - <br> Minor Problems |  | 10' from dirt road. good structure and vigor. | 6/7/2022 |
| 1026 |  | Yes | Lagerstroemia indica | Crape Myrtle | 4 |  | 54 | 9 | 3 Fair - <br> Minor Problems |  | 8' from dirt road. good structure and vigor. | 6/7/2022 |
| 1027 |  | Yes | Cypress sp. | Cypress | 8 |  | 54 | 15 | 3 Fair - <br> Minor Problems |  | good vigor. 2 canopy limbs lean north over dirt road. | 6/7/2022 |
| 1300 |  | Yes | Quercus lobata | Valley Oak | 27 |  | 54 | 34 | 3 Fair - <br> 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 - <br> 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 lobata | 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 - <br> Minor Problems |  | understory, fair structure. good vigor. | 6/7/2022 |
| 1365 |  | Yes | Quercus wislizeni | Interior Live Oak | 7 |  | 54 | 15 | 3 Fair - <br> 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 |

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| 1367 |  | Yes | Quercus douglasii | Blue Oak | 10 |  | 54 | 15 | 3 Fair <br> Minor Problems |  | good base, structure and vigor. | 6/7/2022 |
| 1368 |  | Yes | Quercus lobata | Valley Oak | 10.5 |  | 54 | 18 | 3 Fair - <br> Minor Problems |  | good base, structure and vigor. | 6/7/2022 |
| 1369 |  | Yes | Quercus douglasii | Blue Oak | 4 |  | 54 | 6 | 3 Fair - <br> 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 lobata | 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 - <br> 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 - <br> 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 - <br> Minor Problems |  | good base, structure and vigor. one sided south. | 6/7/2022 |

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| 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 - <br> Minor Problems |  | good base, structure and vigor. understory tree. | 6/7/2022 |
| 1379 |  | Yes | Quercus wislizeni | Interior Live Oak | 14 |  | 54 | 21 | 3 Fair - <br> Minor Problems |  | good base, structure and vigor. leans heavy southwest. | 6/7/2022 |
| 1380 |  | Yes | Quercus lobata | Valley Oak | 11 |  | 54 | 17 | 3 Fair - <br> Minor Problems |  | good base. fair structure and vigor. | 6/7/2022 |
| 1381 |  | Yes | Quercus lobata | Valley Oak | 35 |  | 36 | 38 | 3 Fair - <br> Minor Problems |  | good base, structure and vigor. | 6/7/2022 |
| 1382 |  | Yes | Quercus wislizeni | Interior Live Oak | 5.5 |  | 54 | 16 | 3 Fair - <br> 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 lobata | 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 |


| Field <br> Tag \# | Protected By Code | Offsite | Species Botanical Name | Species <br> Common Name | DBH <br> (in.) | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1387 |  | Yes | Quercus lobata | Valley Oak | 20 |  | 54 | 30 | 3 Fair - <br> Minor Problems |  | good base. fair structure, south mid branches pruned for powerlines. good vigor. | 6/7/2022 |
| 1388 |  | Yes | Quercus lobata | Valley Oak | 15.5 |  | 54 | 30 | 3 Fair - <br> Minor Problems |  | good base. unbalanced canopy east. good vigor. | 6/7/2022 |
| 1389 |  | Yes | Juglans nigra | Black Walnut | 7 |  | 54 | 8 | $1$ <br> Extreme Structure or Health Problems |  | extensive decay throughout. low vigor. | 6/7/2022 |
| 1390 |  | Yes | Juglans nigra | Black Walnut | 6 |  | 54 | 6 | $1$ <br> Extreme Structure or Health Problems |  | extensive decay throughout. dead canopy. low vigor. | 6/7/2022 |
| 1391 |  | Yes | Quercus lobata | Valley Oak | 8 |  | 54 | 6 | 3 Fair - <br> Minor Problems |  | good base, structure and vigor. | 6/7/2022 |
| 1392 |  | Yes | Quercus lobata | Valley Oak | 12 | 9, 9 | 54 | 24 | 3 Fair - <br> 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 lobata | 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 <br> Extreme <br> Structure <br> or Health <br> Problems |  | swollen base. pockets of decay throughout tree. poor structure, understory. high amount of dead branches. low vigor. | 6/7/2022 |
| 1395 |  | Yes | Quercus lobata | Valley Oak | 17 |  | 54 | 24 | 3 Fair - <br> Minor Problems |  | tag south. leans slightly east. good structure and vigor. | 6/7/2022 |
| 1396 |  | Yes | Quercus lobata | Valley Oak | 13 |  | 12 | 13 | 3 Fair - <br> Minor Problems |  | tag south. codominate at 2'. good structure and vigor. low small branches | 6/7/2022 |


| Field Tag \# | Protected By Code | Offsite | Species <br> Botanical Name | Species Common Name | $\begin{aligned} & \text { DBH } \\ & \text { (in.) } \end{aligned}$ | Multi-Stems | Measured at (in.) | Canopy Radius (ft.) | Arborist Rating | Dvipmt Status | Field Notes | Date of Evaluations |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | encroaching on dirt road to the south. |  |
| 1397 |  | Yes | Quercus douglasii | Blue Oak | 13.5 |  | 54 | 30 | $1$ <br> 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 lobata | 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 lobata | Valley Oak | 23.5 |  | 54 | 28 | 3 Fair - <br> 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 - <br> Minor Problems |  | located northside of driveway easement. codominant at 7 ft | 9/16/2020 |
| 8462 | Yes | Yes | Quercus wislizeni | Interior live Oak | 24 | 19,15 | 36 | 25 | 2 Major Structure or Health Problems | tag on <br> 1', 3 la <br> over th <br> small <br> cavitie <br> long o <br> over s <br> 25' | fence north. good base. multi stem a rge stems. canopy pruned many time he years for powerlines directly abov dead branches and small/medium s throughout tree from branch failer verextended 16" lateral west 10' higł 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 |  |


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

## ApPENDIX 3 <br> General Practices for Tree Protection

## Definitions

Root zone: 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 $1 \frac{1}{2}$ 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.

Inner Bark: The bark on large valley oaks and coast live oaks is quite thick, usually $1^{\prime \prime}$ to $2^{\prime \prime}$. 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 PreBid 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.
Irrigate, Fertilize, Mulch: 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 $24^{\prime \prime}$ 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.

Fence: 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.

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 $6^{\prime}$ 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 $3^{\prime}$ of the construction area, place $2^{\prime \prime}$ 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.

Elevate Foliage: 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. ${ }^{2}$

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.

Protect Roots in Deeper Trenches: 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.

Protect Roots in Small Trenches: 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.

[^1]Design the irrigation system so it can slowly apply water (no more than $1 / 4$ " to $1 / 2$ " 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.


Photo 3. View North from Southeast side of parcel.


Photo 4. View West from Southeast corner of parcel.


Photo 6. Tree \#69. Failure of northern stem


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.



[^0]:    ${ }^{1}$ CaITLC 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.

[^1]:    ${ }^{2}$ 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.

