

# ABACUS

CONSULTING ARBORISTS



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## **Arborist Report & Tree Inventory**

For the project of:

Rocklin Fire/Quarry Adventures Park  
Rocklin, CA

Prepared at the Request of:

**Omni-Means, Inc.**

Project Located in:

**City of Rocklin, CA**

March 29, 2017

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# TABLE OF CONTENTS

<b>TABLE OF CONTENTS</b> .....	<b>1</b>
<b>EXECUTIVE SUMMARY:</b> .....	<b>2</b>
<b>ASSIGNMENT:</b> .....	<b>4</b>
<b>OBSERVATIONS:</b> .....	<b>4</b>
TERMS:.....	4
<b>CHART B – INVENTORY OF TREES</b> .....	<b>6</b>
<b>TESTING &amp; ANALYSIS:</b> .....	<b>28</b>
<b>DISCUSSION:</b> .....	<b>28</b>
ROOT STRUCTURE.....	28
STRUCTURAL ISSUES.....	29
PRUNING SHADE TREES FOR GOOD STRUCTURE.....	29
PRUNING MATURE TREES FOR RISK REDUCTION .....	30
ARBORIST DESIGNATIONS.....	31
DECAY IN TREES .....	31
OAK TREE IMPACTS.....	32
<b>CONCLUSION:</b> .....	<b>32</b>
<b>GENERAL RECOMMENDATIONS FOR DEVELOPMENT PLANNING:</b> .....	<b>33</b>
<b>CHART C – DEVELOPMENT STATUS REPORT</b> .....	<b>35</b>
<b>SUPPORTING INFORMATION:</b> .....	<b>43</b>
GLOSSARY:.....	43
TREE LOCATION MAP .....	44
TREE SIZE EXPRESSED BY TRUNK DIAMETER .....	46
DISCLOSURE, ASSUMPTIONS AND DISCLAIMER.....	47

**Executive Summary:**

Larry Wing of Omni-Means, Inc. contacted Abacus Consulting Arborists to inventory and evaluate the protected trees and produce an Arborist Report as the end product. The property is 5255 Pacific Street, APN # 010-170-026-000, and portions of parcels 010-170-028-000, 010-230-004-000, and 010-230-005-000. All located in Rocklin, California. See Supporting Information – Site Map and Tree Location Map.

Nicole Harrison, ISA Certified Arborist #WE-6500AM, TRAQ, and Greg Nicholas, arborists assistant, of Abacus Consulting Arborists were on site February 10th, 2017 to March 8, 2017; providing species identification, number of trunks, measurements of DBH and canopy, field condition notes, recommended actions, ratings, and approximate locations.

There are Two Hundred Twenty-Four (224) trees on this property that qualify as “protected trees” by the standards of the City of Rocklin Oak Tree Preservation Guidelines.

One (1) of the protected trees are Healthy. Arborist rating 5 – Excellent.

Eighteen (18) of the protected trees are Healthy. Arborist rating 4.

Eighty-Six (86) of the protected trees are Healthy. Arborist rating 3.

**One Hundred Five Healthy Trees**

Seventy-Four (74) of the protected trees are Diseased and/or Dying – Category 2. Arborist rating 2.

Forty-Five (45) of the protected trees are Diseased and/or Dying – Category 1. Arborist rating 0 or 1.

**One Hundred Nineteen Diseased and/or Dying Trees**

Two (2) additional trees on the site were tagged but are not protected by size. A total of 219 trees surveyed, of which 23 are Blue Oak, 197 are Interior Live Oak, and 6 are Valley Oak.

**See Chart B – Inventory of Trees for specific information on each tree.**

There are Ten (10) Heritage trees, TDBH of 24” or more, on the property, of which 2 are in poor condition (denoted by red type), as follows:

Tag	Species Common Name	Species Botanical Name	TDBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Rating
202	Blue Oak	<i>Quercus douglasii</i>	28	29	ILO at base, growing over rock, codominant leader at 8', HVL pruning stubs, epicormic growth, good leaf surface		Remove S limb at 10' rubbing on tree 201	3 Fair - Minor Problems
203	Blue Oak	<i>Quercus douglasii</i>	28	38	Metal plate, cable, and rocks imbedded at 1' both S and N, leans to west, good leaf surface, canopy to ground to S	Yes	Advanced inspection recommended	3 Fair - Minor Problems
205	Blue Oak	<i>Quercus douglasii</i>	32	39	Rock at base, codominant leader removed at 6' -almost closed, pruning stubs to S, failure stubs to N, good leaf surface, canopy to ground to S	Yes	Cable or reduce to prevent failure, remove stubs	4 Good - No Apparent Problems
219	Blue Oak	<i>Quercus douglasii</i>	42	32	Imbedded cables below 5' and at 15', closed stubs and wounds, codominant leader at 20', large deadwood, carpenterworm moth infestation, fair leaf surface, poor twig elongation, interesting		Remove if target, If to remain: root crown excavation recommended, remove dead wood, aerial inspect and treat for moth, re-evaluate annually	1 Extreme Structure or Health Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Canopy Radius	Notes	Clearance _Pruning Required	Actions	Rating
220	Interior Live Oak	<i>Quercus wislizenii</i>	+/- 35 at base	30	Codominant leader at 2', large failures below 5', broad canopy, broadleaf mistletoe, good leaf surface	Yes	No access, re-evaluate	3 Fair - Minor Problems
259	Interior Live Oak	<i>Quercus wislizenii</i>	28 @ 2'	30	Codominant leader at 3', 6-7" dead wood, chain thru base, decay at 4' in S stem at old pruning cuts, good leaf surface	Yes	Remove dead wood, re- evaluate annually if target	4 Good - No Apparent Problems
272	Interior Live Oak	<i>Quercus wislizenii</i>	36 @ 1'	30	Growing over rocks, lion tailed, all wounds decaying, SE stem heartwood exposed, advanced decay, poor leaf surface		Remove if target	1 Extreme Structure or Health Problems
282	Valley Oak	<i>Quercus lobata</i>	24	38	Slight lean, lower limb at 2' understory, 1- 5" dead wood, cable thru tree	Yes	Remove dead wood, re- evaluate annually	3 Fair - Minor Problems
284	Blue Oak	<i>Quercus douglasii</i>	26	36	Old 303, tag to W, base under water at time of inspection, low prostrate limb to N, good canopy	Yes	Remove leaning Grey Pine above canopy, remove dead wood, re-evaluate annually	4 Good - No Apparent Problems
305	Interior Live Oak	<i>Quercus wislizenii</i>	26 @ 1'	27	Codominant leader at 2' with wide angle, and at 4' with included bark, canopy raised (photo), good leaf surface, S stem over extended			4 Good - No Apparent Problems

There are eighty-five (85) trees proposed for removal for the Quarry Park, Fire Station and Parking area as follows:

**Quarry Park Trees to be Removed:**

Two (2) of the removal trees are Healthy. Arborist rating 4.

Seven (7) of the removal trees are Healthy. Arborist rating 3.

**Nine Healthy Trees Proposed for Removal**

Six (6) of the removal trees are Diseased and/or Dying – Category 2. Arborist rating 2.

Ten (10) of the protected trees are Diseased and/or Dying – Category 1. Arborist rating 0 or 1.

**Sixteen Diseased and/or Dying Trees Proposed for Removal**

**Parking Lot Trees to be Removed:**

One (1) of the removal trees is Healthy. Arborist rating 4.

Thirteen (13) of the removal trees are Healthy. Arborist rating 3.

**Fourteen Healthy Trees Proposed for Removal**

Sixteen (16) of the removal trees are Diseased and/or Dying – Category 2. Arborist rating 2.

Seven (7) of the protected trees are Diseased and/or Dying – Category 1. Arborist rating 0 or 1.

**Twenty-three Diseased and/or Dying Trees Proposed for Removal**

**Fire Station Footprint Trees to be Removed:**

One (1) of the removal trees is Healthy. Arborist rating 4.

Ten (10) of the removal trees are Healthy. Arborist rating 3.

**Eleven Healthy Trees Proposed for Removal**

Eight (8) of the removal trees are Diseased and/or Dying – Category 2. Arborist rating 2.

Four (4) of the protected trees are Diseased and/or Dying – Category 1. Arborist rating 0 or 1.

**Twelve Diseased and/or Dying Trees Proposed for Removal**

**See Chart C – Inventory of Trees with Development Status for each tree.**

## **Assignment:**

Pursuant to your request, **ABACUS** has completed an inventory of all the trees located on-site. We provided on-site tagging, as well as species identification, number of stems, measurements of DBH and canopy, field condition notes, recommended actions, and ratings.

## **Observations:**

Nicole Harrison, *Project Manager & ISA Certified Arborist #WE-6500AM, TRAQ*, evaluated all protected trees that met the requirements of the Rocklin Tree Preservation Guidelines. The fieldwork was performed on February 13 – March 8, 2017.

The protected trees (on-site) tagged by **ABACUS** have a numbered tag, placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: **ABACUS**, Auburn, CA with 1/8" pre-stamped tree number, our phone number 530-889-0603, attached with a natural colored aluminum 10d (3") nail, installed at 6 feet above ground level on the north side of the tree. The tag should last ~10 – 20+ years depending on the species, before it is enveloped by the trees' normal growth cycle.



Tree Site Map is by others. Tree Location Map attached as Appendix A and all of the other information within this report is by Abacus Consulting Arborists.

**Chart B** in this report is an inventory on the trees. The following terms will further explain our findings on **Chart B** and the trees in question.

### **Terms:**

**Species** of trees is listed by our local common name and botanical name by genus and species. Oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.

**TDBH** (total diameter breast high) is the largest stem of the tree, 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 here. A Swedish caliper<sup>1</sup> was used to measure the TDBH for trees less than 32" in diameter and a steel diameter tape<sup>2</sup> for trees greater than 26"Ø.

**Additional Stems DBH** refers to the trunks or stems not included in the TDBH of a tree that have a significant connection. If one stem or trunk were to be removed, it would cause decay to harm an adjoining stem, making it one tree. All stems must be of the same species. (Also see "Tree SIZE Expressed by Trunk Diameter" at the end of this report)

**Canopy radius** is measured in feet. It is the farthest extent of the crown composed of leaves and small twigs measured by a Stanley digital distance meter. This measurement often defines the Critical Root Zone (CRZ) or Protection Zone (PZ), which is a circular area around a tree with a radius equal to this measurement.

**Clearance Pruning Required** indicates if pruning will be required within the measured canopy radius to access this area. If Yes, field evaluation should be performed when a development plan indicates encroachment into the Protection Zone (PZ).

<sup>1</sup>A large wooden sliding adjustable thickness gauge calibrated in 1/16" increments.

<sup>2</sup>Diameter Tape is used to figure the tree's diameter, by measuring the circumference, whereon the inches are pre-multiplied by 3.14 or  $\pi$  ( $\pi$  called pi) and shown to produce the diameter of the tree directly on the tape.

**Notes** indicate the health, structure and environment of the tree and explain why the tree should be removed or preserved. Additional notes may indicate if problems are minor, extreme or correctible.

**Actions** listed are recommendations to improve health or structure of the tree. Trees in public spaces require maintenance. If a tree is to remain and be preserved, then the tree may need some form of work to reduce the likelihood of failure and increase the longevity of the tree. Preservation requirements and actions based on a proposed development plan are not included here.

**Rocklin Rating** is the condition of the tree pursuant to the language in the Tree Preservation Guidelines. The scale is as follows:

Healthy  
Diseased and/or Dying

**Arborist Rating** is 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. The scale is as follows:

No problem(s)	5	excellent
No apparent problem(s)	4	good
Minor problem(s)	3	fair
Major problem(s)	2	poor
Extreme problem(s)	1	hazardous, non-correctable
Dead	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.

**Remove** is the recommendation that the tree be removed. The recommendation will normally be based either on poor structure or poor health and is indicated as follows:

Yes H - Tree is unhealthy  
Yes S - Tree is structurally unsound

**BOLD:** Heritage Tree  
**BLUE:** Not Protected  
**RED:** Recommended for Removal

## Chart B – Inventory of Trees

Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
201	Blue Oak	<i>Quercus douglasii</i>	16		27	Growing over rocks, codominant leader at 6' with included bark, S stem bows, N stem rubbing on 202. Understory tree. Structure is not correctable. HVL		Reduce canopy to S. Note: electric to ground at pole 9' to west.		Diseased and/or Dying	2 Major Structure or Health Problems
202	Blue Oak	<i>Quercus douglasii</i>	28		29	<b>ILO at base, growing over rock, codominant leader at 8', HVL pruning stubs, epicormic growth, good leaf surface</b>		<b>Remove S limb at 10' rubbing on 201</b>		<b>Healthy</b>	<b>3 Fair - Minor Problems</b>
203	Blue Oak	<i>Quercus douglasii</i>	28		38	<b>Metal plate, cable, and rocks imbedded at 1' both S and N, leans to west, good leaf surface, canopy to ground to S</b>		<b>Advanced inspection recommended</b>		<b>Healthy</b>	<b>3 Fair - Minor Problems</b>
204	Blue Oak	<i>Quercus douglasii</i>	6		0	Under 203 rubbing, included bark at 7' at codominant leader		Remove 1 stem at 7'		Diseased and/or Dying	2 Major Structure or Health Problems
205	Blue Oak	<i>Quercus douglasii</i>	32		39	<b>Rock at base, codominant leader removal at 6' almost closed, pruning stubs to S, failure stubs to N, good leaf surface, canopy to ground to S</b>		<b>Cable or reduce to prevent failures, remove stubs</b>		<b>Healthy</b>	<b>4 Good - No Apparent Problems</b>
206	Blue Oak	<i>Quercus douglasii</i>	10 @ 3'		26	Very poor structure, understory, interesting		Remove dead wood		Diseased and/or Dying	2 Major Structure or Health Problems
207	Interior Live Oak	<i>Quercus wislizenii</i>	8	6	22	Codominant leader at base, stems cross, both stems lean and unbalanced canopy to W, canopy to ground to NW, good leaf surface		Prune for good structure, remove crossing limbs and space branches		Diseased and/or Dying	2 Major Structure or Health Problems
208	Interior Live Oak	<i>Quercus wislizenii</i>	9		23	Ps at ground, leans from suppression, over extended		Reduce		Diseased and/or Dying	2 Major Structure or Health Problems
209	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 3	21	All stems lean N, understory, fair leaf surface	Yes			<b>Healthy</b>	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
210	Interior Live Oak	<i>Quercus wislizenii</i>	10		16	On a mound, cavity under base - no evidence of decay, upright growth, fair leaf surface		Remove smaller stem, Prune for good structure		Healthy	3 Fair - Minor Problems
211	Interior Live Oak	<i>Quercus wislizenii</i>	21		28	On a mound, codominant leader at 2-3' wide, unbalanced canopy to S, lower limbs extended good leaf surface				Healthy	4 Good - No Apparent Problems
212	Interior Live Oak	<i>Quercus wislizenii</i>	18 @ 3'		22	On a mound at edge of steep slope, abnormal flare, some surface roots, codominant leader at 4', good canopy				Diseased and/or Dying	2 Major Structure or Health Problems
213	Interior Live Oak	<i>Quercus wislizenii</i>	17		20	Small cavities and stubs, fair leaf surface, some dieback		Remove dead wood, leave sprouts low on trunk for 3 years		Healthy	3 Fair - Minor Problems
214	Interior Live Oak	<i>Quercus wislizenii</i>	15		17	Growing up rock slab, reduced to S with large cuts, fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
215	Interior Live Oak	<i>Quercus wislizenii</i>	19		23	Too much dead wood, too much decay, mostly epicormic growth			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
216	Blue Oak	<i>Quercus douglasii</i>	13		24	Rocks at base, epicormic growth, poor twig elongation, leans toward structure, poor to fair leaf surface				Healthy	3 Fair - Minor Problems
217	Interior Live Oak	<i>Quercus wislizenii</i>	14		20			Very poor structure, decay cavities and failures	Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
218	Interior Live Oak	<i>Quercus wislizenii</i>	23		29	11" failure at 3' off the ground, leans out of the ground with correction at 4', all canopy to S to ground		Recut stub, remove debris, re- inspect if to remain		Diseased and/or Dying	1 Extreme Structure or Health Problems



Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
219	Blue Oak	<i>Quercus douglasii</i>	42		32	Imbedded cables below 5' and at 15', closed stubs and wounds, codominant leader at 20', large dead wood, carpenterworm moth, fair leaf surface, poor twig elongation, interesting		Remove if target, If to remain: root crown excavation, Remove dead wood, treat for moth, re-evaluate annually		Diseased and/or Dying	1 Extreme Structure or Health Problems
220	Interior Live Oak	<i>Quercus wislizenii</i>	+/- 35 at base		30	Codominant leader at 2', large failures below 5', broad canopy, broadleaf mistletoe, good leaf surface		No access, re-evaluate		Healthy	3 Fair - Minor Problems
221	Interior Live Oak	<i>Quercus wislizenii</i>	10	10, 8	17	Canopy raised, growing on rocks, broadleaf mistletoe, fair leaf surface				Healthy	3 Fair - Minor Problems
222	Blue Oak	<i>Quercus douglasii</i>	8		13	Poor health, growing on rocks				Diseased and/or Dying	2 Major Structure or Health Problems
223	Interior Live Oak	<i>Quercus wislizenii</i>	8	6, 4	14	Rocks at base, canopy raised, fair leaf surface, mistletoe				Healthy	3 Fair - Minor Problems
224	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 4	15	Abnormal root flare, growing on rock, surface roots, canopy raised, fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
225	Interior Live Oak	<i>Quercus wislizenii</i>	16 @ 3'	12, 10	30	Growing over rock, abnormal flare, surface roots over rock, canopy raised- poor cuts, fair leaf surface		Remove if target		Healthy	3 Fair - Minor Problems
226	Blue Oak	<i>Quercus douglasii</i>	12		22	Very poor structure, interesting				Diseased and/or Dying	1 Extreme Structure or Health Problems
227	Interior Live Oak	<i>Quercus wislizenii</i>	8	8, 8, 8	18	Too much decay, stems run on ground			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
228	Valley Oak	<i>Quercus lobata</i>	9		NM	Understory, bow and over extended to NW		To be determined		Diseased and/or Dying	2 Major Structure or Health Problems

Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canop y Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
229	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 5	17	Growing over rock, crossing limbs, canopy raised- poor cuts. fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
230	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 3'		22	Understory, sig lean, poor leaf surface, buried crown				Diseased and/or Dying	1 Extreme Structure or Health Problems
231	Interior Live Oak	<i>Quercus wislizenii</i>	8	7	24	24		Buried crown, poor pruning, lean and bow		Diseased and/or Dying	2 Major Structure or Health Problems
232	Interior Live Oak	<i>Quercus wislizenii</i>	8	8	21	Crown raised, limb over extended to NW, epicormic growth From pruning, fair leaf surface				Healthy	3 Fair - Minor Problems
233	Interior Live Oak	<i>Quercus wislizenii</i>	13	13, 13, 12, 12, 10, 9, 8	0	All stems from base, narrow attachments, imbedded cable at crotch, decay pocket in center?, too many limbs recently removed- reduced SULE, over extended limbs		Advanced inspection recommended		Healthy	3 Fair - Minor Problems
234	Interior Live Oak	<i>Quercus wislizenii</i>	8	7, 5	16	Poor structure, decay at limb failures, poor leaf surface			Yes H	Diseased and/or Dying	1 Extreme Structure or Health Problems
235	Interior Live Oak	<i>Quercus wislizenii</i>	14	12, 12, 10, 9, 8, 8	34	Growing over rocks, poor leaf surface, girdling root, poor leaf surface, decay at old pruning cuts		L3		Diseased and/or Dying	2 Major Structure or Health Problems
236	Interior Live Oak	<i>Quercus wislizenii</i>	9		30				Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
237	Interior Live Oak	<i>Quercus wislizenii</i>	8	4	15	Stems cross, advanced decay in 8 but almost closed, 4 has very poor pruning		Future removal		Diseased and/or Dying	2 Major Structure or Health Problems
238	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 3'	5	12	Poor junction at base, poor leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
239	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 1'		13	Abnormal root flare, poor leaf surface				Healthy	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
239	Interior Live Oak	<i>Quercus wislizenii</i>	9	8, 7, 6	20	Canopy raised, fair leaf surface				<b>Healthy</b>	3 Fair - Minor Problems
240	Interior Live Oak	<i>Quercus wislizenii</i>	9	8, 7, 6	20	Canopy raised, fair leaf surface				<b>Healthy</b>	3 Fair - Minor Problems
241	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 1', 11 @ 1'		18	Growing over rocks, large surface root, large dead wood, fair leaf surface		Remove dead wood		Diseased and/or Dying	2 Major Structure or Health Problems
242	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'		12	Rocks at base, old tag 477, canopy to ground, good leaf surface				<b>Healthy</b>	3 Fair - Minor Problems
243	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 1'		9	Tag to S, growing over rocks, dead wood at 6"-1' in main stem w wound wood, poor leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
244	Interior Live Oak	<i>Quercus wislizenii</i>	10	7, 9, 6, 8, 3, 5, 6, 5, 8, 3, 3	0	Corner Pin, growing into fence, cluster from base, included bark, crossing limb, many stems lean and/or bow, fair leaf surface	Yes	Remove all stems less than 3", remove fence post without damage to tree, raise canopy all cuts into live wood < 3"		<b>Healthy</b>	3 Fair - Minor Problems
244	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'		12	Growing against rock at street, good canopy		Remove Grey Pine to NE, re-evaluate annually		<b>Healthy</b>	3 Fair - Minor Problems
245	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 1'	2	14	Some poor structure narrow attachment to W, fair leaf surface, mistletoe	Yes	Remove smaller stem		<b>Healthy</b>	3 Fair - Minor Problems
246	Valley Oak	<i>Quercus lobata</i>	10		12	Canker at base		Re-evaluate annually		Diseased and/or Dying	2 Major Structure or Health Problems
247	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 1'		13	Surface root over rock, growing on rock, good leaf surface	Yes	Remove dead wood		<b>Healthy</b>	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
248	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'		17	Rock at base, unbalanced canopy to SE over rock, good leaf surface		Prune for good structure		<b>Healthy</b>	3 Fair - Minor Problems
249	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 6"	6, 4, 6, 4, 6, 3	0	Decay pocket at center			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
250	Interior Live Oak	<i>Quercus wislizenii</i>	18 @ 1'		24	Low prostrate limbs, some poor structure, limb to S topped with regrowth	Yes	Remove dead wood, remove limbs <3" that touch the ground, re-inspect S limb		<b>Healthy</b>	4 Good - No Apparent Problems
251	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 4, 4, 4, 3, 3, 3	13	Rock at base, 1-4" dead wood		Remove dead wood		Diseased and/or Dying	2 Major Structure or Health Problems
252	Blue Oak	<i>Quercus douglasii</i>	6	4	12	Canker at base, too much dead wood			Yes H	Diseased and/or Dying	1 Extreme Structure or Health Problems
253	Interior Live Oak	<i>Quercus wislizenii</i>	12 @ 2'		15	Old 242, unbalanced canopy to NW, 1-2" dead wood, abnormal flare	Yes	Remove dead wood		<b>Healthy</b>	3 Fair - Minor Problems
255	Interior Live Oak	<i>Quercus wislizenii</i>	10	9, 7, 6, 5, 4, 3, 3, 3, 3, 2, 3, 7	25	Growing over rocks, some stems run on ground, mistletoe	Yes	Remove if target, Remove dead wood		Diseased and/or Dying	2 Major Structure or Health Problems
256	Interior Live Oak	<i>Quercus wislizenii</i>	8 at 1'	5, 3	18	Low wide crotch, rocks at base, unbalanced canopy to SW	Yes	Remove all limbs < 2" below 5', Prune for good structure		<b>Healthy</b>	3 Fair - Minor Problems
257	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 4, 4, 4, 3, 3	20	Rock at base, under story, most stems lean, pruning stubs at base				Diseased and/or Dying	2 Major Structure or Health Problems
258	Interior Live Oak	<i>Quercus wislizenii</i>	8	8, 6, 5, 3, 3, 2, 2, 2, 2, 2	21	Stump sprout - decay at old stem, rocks at base, N Stem sig lean		Reinspect annually for decay		<b>Healthy</b>	3 Fair - Minor Problems
259	Interior Live Oak	<i>Quercus wislizenii</i>	28 @ 2'		30	Codominant leader at 3', 6-7" dead wood, chain thru base, decay at 4' in S stem at old pruning cuts, good leaf surface	Yes	Remove dead wood, reinspect annually if target		<b>Healthy</b>	4 Good - No Apparent Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
260	Interior Live Oak	<i>Quercus wislizenii</i>	6		15	Understory, leans				Diseased and/or Dying	2 Major Structure or Health Problems
261	Interior Live Oak	<i>Quercus wislizenii</i>	6 @ 1'		11	Codominant leader at 2'		Prune for good structure		<b>Healthy</b>	3 Fair - Minor Problems
262	Interior Live Oak	<i>Quercus wislizenii</i>	10	5, 4, 2, 2, 2	18	Decay pocket at base, poor structure in main stem				Diseased and/or Dying	1 Extreme Structure or Health Problems
263	Interior Live Oak	<i>Quercus wislizenii</i>	7	5, 4, 3	15	Understory, poor structure			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
264	Interior Live Oak		5	3	16	Not protected. Growing over rock, under story				Diseased and/or Dying	2 Major Structure or Health Problems
265	Interior Live Oak	<i>Quercus wislizenii</i>	14 @ 1'	11 @ 1', 7, 6	24	Growing over rocks, 6 and 7 are 3-5' off the ground, codominant leader at 1'	Yes	Prune for good structure, remove lower 4" limbs		<b>Healthy</b>	3 Fair - Minor Problems
266	Interior Live Oak		5	5	24	Not protected. Too much decay, poor structure			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
267	Interior Live Oak	<i>Quercus wislizenii</i>	12	11, 8, 3	0	Codominant leader at base and 1', included bark, 12 has split base to 10' - mostly closed, other stems bow				Diseased and/or Dying	2 Major Structure or Health Problems
268	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'	5, 6, 4, 7 @ 2', 4	26	Too much decay at base			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
269	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 4	14	Codominant leader at base, decayed under base of all stems, 2 dead stems, fair leaf surface on rest				Diseased and/or Dying	1 Extreme Structure or Health Problems
270	Blue Oak	<i>Quercus douglasii</i>	9		12	Edge of rock, bug bark, canker, fair leaf surface, 2-4" dead wood				Diseased and/or Dying	2 Major Structure or Health Problems
271	Interior Live Oak	<i>Quercus wislizenii</i>	16 @ 1'		17	Slope to pond, decay stub and dead wood at 3', prostrate limb to S at 2', fair leaf surface		Remove dead wood, reinspect annually for decay progression		<b>Healthy</b>	3 Fair - Minor Problems

Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
272	Interior Live Oak	<i>Quercus wislizenii</i>	36 @ 1'		30	Growing over rocks, lion tailed, all wounds decaying, SE stem heart wood exposed, advanced decay, poor leaf surface		Remove if target		Diseased and/or Dying	1 Extreme Structure or Health Problems
272	Interior Live Oak	<i>Quercus wislizenii</i>	6		18	Other stem is dead, edge of cliff, too much dead wood				Diseased and/or Dying	1 Extreme Structure or Health Problems
273	Interior Live Oak	<i>Quercus wislizenii</i>	12		26	Rock at base, unbalanced canopy to S, fair leaf surface		Remove Grey Pine over canopy		Healthy	3 Fair - Minor Problems
274	Blue Oak	<i>Quercus douglasii</i>	7		8	good leaf surface, borers/canker split at 6'				Healthy	4 Good - No Apparent Problems
275	Interior Live Oak	<i>Quercus wislizenii</i>	14	12, 11	25	Old 307, codominant leader at 1' and 2', low limbs growing over rock - deformed				Healthy	3 Fair - Minor Problems
276	Interior Live Oak	<i>Quercus wislizenii</i>	7		26	Significant lean W				Diseased and/or Dying	2 Major Structure or Health Problems
277	Interior Live Oak	<i>Quercus wislizenii</i>	6	4	0	Edge of cliff, too much dead wood in main stem				Diseased and/or Dying	1 Extreme Structure or Health Problems
278	Interior Live Oak	<i>Quercus wislizenii</i>	17		28	Old 312, dead wood cavity at codominant leader at 8'		Remove dead wood, re-evaluate annually, no target		Diseased and/or Dying	2 Major Structure or Health Problems
279	Interior Live Oak	<i>Quercus wislizenii</i>	11		24	Leans, good leaf surface				Healthy	4 Good - No Apparent Problems
280	Blue Oak	<i>Quercus douglasii</i>	7		18	Old 310, unbalanced canopy to S		Prune to balance		Healthy	3 Fair - Minor Problems
281	Interior Live Oak	<i>Quercus wislizenii</i>	8	8	31	Pruning stub at 6" and 1', codominant leader at 2', E stem leans and over extended		Remove stubs		Healthy	3 Fair - Minor Problems
282	Valley Oak	<i>Quercus lobata</i>	24		38	Slight lean, lower limb at 2' understory, 1-5" dead wood, cable thru tree		Remove dead wood, re-evaluate annually		Healthy	3 Fair - Minor Problems

Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canop y Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
283	Interior Live Oak	<i>Quercus wislizenii</i>	8		15	Abnormal trunk shape, understory, 2-3" dead wood, fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
284	Blue Oak	<i>Quercus douglasii</i>	26		36	Old 303, tag to W, base under water at time of inspection, low prostrate limb to N, good canopy	Yes	Remove leaning Grey Pine above canopy, Remove dead wood, re- evaluate annually		Healthy	4 Good - No Apparent Problems
285	Interior Live Oak	<i>Quercus wislizenii</i>	10 (not measu red)	8, 9	22	Under water, codominant leader at 1', good leaf surface, main stems cross		Reinspect when dry		Healthy	3 Fair - Minor Problems
286	Interior Live Oak	<i>Quercus wislizenii</i>	8	5	0	Understory, 5 leans, 8 codominant leader widest 5' both stems over		Remove dead wood, Prune for good structure		Diseased and/or Dying	2 Major Structure or Health Problems
287	Interior Live Oak	<i>Quercus wislizenii</i>	18	15	27	Abnormal flare, codominant leader at 1' included bark, lf dead wood, good leaf surface	Yes	Remove dead wood, reduce to prevent failure		Diseased and/or Dying	2 Major Structure or Health Problems
288	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 1'		20	Large deadwood stubs, poor leaf surface				Diseased and/or Dying	1 Extreme Structure or Health Problems
289	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 2'		18	Rock at base, lean with correction, codominant leader with included bark at 5'		Prune for good structure		Healthy	3 Fair - Minor Problems
290	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'		22	Poor structure in both stems significant lean, large dead wood, low canopy				Diseased and/or Dying	1 Extreme Structure or Health Problems
291	Interior Live Oak	<i>Quercus wislizenii</i>	16	11	0	Codominant leader at 1' wound at crotch poor attachment, Codominant leader in S stem at 6' and 7', W stem large dead wood	Yes	Remove dead wood, ri for cable		Diseased and/or Dying	2 Major Structure or Health Problems
292	Interior Live Oak	<i>Quercus wislizenii</i>	9	5	25	Too much dead wood base to crotch, poor structure				Diseased and/or Dying	2 Major Structure or Health Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
293	Interior Live Oak	<i>Quercus wislizenii</i>	6		25	Poor structure, too much dead wood				Diseased and/or Dying	1 Extreme Structure or Health Problems
294	Interior Live Oak	<i>Quercus wislizenii</i>	10		21	Too much dead wood, Fire damage			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
295	Interior Live Oak	<i>Quercus wislizenii</i>	8		25	Fire damage, significant lean		Remove		Diseased and/or Dying	1 Extreme Structure or Health Problems
296	Interior Live Oak	<i>Quercus wislizenii</i>	18	10, 12, 15	0	Fire damage, hazard			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
297	Interior Live Oak	<i>Quercus wislizenii</i>	11		15	Edge of cliff, fire damage, good leaf surface		Wait, Remove dead wood		Diseased and/or Dying	1 Extreme Structure or Health Problems
298	Interior Live Oak	<i>Quercus wislizenii</i>	8	6	15	Under overhang, fair leaf surface	Yes			Diseased and/or Dying	2 Major Structure or Health Problems
299	Interior Live Oak	<i>Quercus wislizenii</i>	14 @ 1'	8, 11, 11 @ 3', 9	22	Rock at base, mostly epicormic growth		Poor health wait		Diseased and/or Dying	2 Major Structure or Health Problems
300	Interior Live Oak	<i>Quercus wislizenii</i>	10	8, 6, 4, 7, 7, 4	22	Rocks at base, decay at central junction, stem runner, epicormic growth, dead wood		Remove dead wood, Prune for good structure - x, re-evaluate annually		Diseased and/or Dying	2 Major Structure or Health Problems
301	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'		18	Rocks at base, suppressed leans to S		Remove mostly dead small stems		<b>Healthy</b>	3 Fair - Minor Problems
302	Interior Live Oak	<i>Quercus wislizenii</i>	12	12, 9	28	Tag to W, wrapped in poison oak, unbalanced canopy to NW, growing over rocks, codominant leader at base		Remove poison oak and re-evaluate		<b>Healthy</b>	3 Fair - Minor Problems
303	Interior Live Oak	<i>Quercus wislizenii</i>	18	10, 9	30	Wrapped in Po, Minot measured,		Remove Po and reinspect		Diseased and/or Dying	2 Major Structure or Health Problems
304	Blue Oak	<i>Quercus douglasii</i>	7 @ 1'		0	Poor structure at 2', good canopy		Remove stem at 2'		<b>Healthy</b>	3 Fair - Minor Problems
305	Interior Live Oak	<i>Quercus wislizenii</i>	26 @ 1'		27	Codominant leader at 2' wide, and 4' included bark, canopy raised (photo), good leaf surface, S stem over extended				<b>Healthy</b>	4 Good - No Apparent Problems



Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
306	Interior Live Oak	<i>Quercus wislizenii</i>	20	15, 12, 10	31	Codominant leader at 1', decay under center, over extended limbs, large decaying wounds		Advanced L3 inspection recommended		Diseased and/or Dying	2 Major Structure or Health Problems
307	Interior Live Oak	<i>Quercus wislizenii</i>	10	5	23	Extreme lean, poor crown ratio				Diseased and/or Dying	1 Extreme Structure or Health Problems
308	Interior Live Oak	<i>Quercus wislizenii</i>	11	10, 8, 8, 7	34	Codominant leader at ground and 1', some stems decaying wounds- poor cuts, over extended S		Reduce		Healthy	3 Fair - Minor Problems
309	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 2'	5, 6	17	Growing over rock, good leaf surface	Yes	Remove dead wood		Healthy	3 Fair - Minor Problems
310	Interior Live Oak	<i>Quercus wislizenii</i>	12	11, 10, 10, 9, 8, 8, 8, 7, 7, 6, & run 8, 6, 7, 6	0	Edge of bank, group of 3 previously individuals now connected		9 and 6 broken into pond, lots of poison oak, over extended, preserve - advanced L3 inspection recommended		Diseased and/or Dying	2 Major Structure or Health Problems
311	Interior Live Oak	<i>Quercus wislizenii</i>	7	7	15	Codominant leader at 1' included bark		Prune for good structure		Healthy	3 Fair - Minor Problems
312	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 5	16	Knobby growths, too many stems removed at base (photos)				Diseased and/or Dying	2 Major Structure or Health Problems
313	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 3'	7, 7	18	Stems removed at base, growing over rock, lion tailed, poor crown ratio, overextended				Healthy	3 Fair - Minor Problems
314	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 6	21	Too much dead wood, too much decay			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
315	Interior Live Oak	<i>Quercus wislizenii</i>	7	5, 5	17	Canopy raised, lion tailed, poor taper, poor crown ratio				Diseased and/or Dying	2 Major Structure or Health Problems

Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
316	Interior Live Oak	<i>Quercus wislizenii</i>	8		16	Too many stems removed at base, remaining stem leans, lion tailed				Diseased and/or Dying	2 Major Structure or Health Problems
317	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 1'		19	Lion tailed, poor structure below 2'				Diseased and/or Dying	2 Major Structure or Health Problems
318	Interior Live Oak	<i>Quercus wislizenii</i>	8	5	13	Abnormal flare, poor structure				Diseased and/or Dying	2 Major Structure or Health Problems
319	Interior Live Oak	<i>Quercus wislizenii</i>	6	3	12	Stems connect underground, 3 has too much dead wood and borers		Remove 3" stem		Healthy	3 Fair - Minor Problems
320	Interior Live Oak	<i>Quercus wislizenii</i>	7		20	Removed stems at base - too much, lion tailed, significant lean				Diseased and/or Dying	1 Extreme Structure or Health Problems
321	Interior Live Oak	<i>Quercus wislizenii</i>	9	7, 7, 6, 5, 4	24	Decay under base of 3 stems, all stems lean and lion tailed				Diseased and/or Dying	1 Extreme Structure or Health Problems
322	Interior Live Oak	<i>Quercus wislizenii</i>	15 @ 2'	12, 12, 10	0	15 has included bark at 3' and leans NE, other 3 has limb stub in crotch causing damage, fair leaf surface		Will need canopy reduction, remove stub		Healthy	4 Good - No Apparent Problems
323	Interior Live Oak	<i>Quercus wislizenii</i>	13	11, 10, 6	26	Rock at base, recently pruning cuts - lion tailed, fair leaf surface				Healthy	3 Fair - Minor Problems
324	Interior Live Oak	<i>Quercus wislizenii</i>	8	7	0	Buried at base, large removed stem at 1', fair leaf surface		Remove fill to expose base or plan for removal		Healthy	3 Fair - Minor Problems
325	Interior Live Oak	<i>Quercus wislizenii</i>	6	6, 6	23	Decaying under base, buried in mulch, poor structure lean and bow, epicormic growth			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
326	Interior Live Oak	<i>Quercus wislizenii</i>	7	6	25	Base buried in mulch, both stems bow to S, epicormic growth				Diseased and/or Dying	2 Major Structure or Health Problems

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327	Interior Live Oak	<i>Quercus wislizenii</i>	15	13, 12, 7, 11, 12	35	Too much dead wood, bark sloughs up to 20' in 15		Remove 2 stems to N and largest immediately- hazard	Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
328	Interior Live Oak	<i>Quercus wislizenii</i>	8	8, 6, 5, 5, 5, 5, 4, 3	26	Rocks and debris covering base, lion tailed, fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
329	Interior Live Oak	<i>Quercus wislizenii</i>	9		20	Leans from base with correction, top of mound, base buried?, good leaf surface, pruned up		Slope?		Healthy	3 Fair - Minor Problems
330	Interior Live Oak	<i>Quercus wislizenii</i>	14		0	Buried at base, rocks at base, poor pruning cuts below 1', codominant leader at 6', unbalanced canopy to E, fair leaf surface		Remove rocks, mulch and debris from base and reinspect		Diseased and/or Dying	2 Major Structure or Health Problems
331	Blue Oak	<i>Quercus douglasii</i>	12 @ 1'	11 @ 1', 7	25	Buried at base, south stem closed scars, decay pockets, fire damage, mechanical damage and old pruning cuts, natural graft with N stem at 3', suppressed by Grey Pines, south stems bow,		fair leaf surface, remove mulch at base re-inspect, Remove dead wood		Healthy	3 Fair - Minor Problems
332	Interior Live Oak	<i>Quercus wislizenii</i>	9	9	32	Buried at base, old pruning cuts from canopy raised, unbalanced canopy to S, good leaf surface	Yes	Remove mulch at base and re- inspect		Healthy	3 Fair - Minor Problems
333	Interior Live Oak	<i>Quercus wislizenii</i>	20 @ 4'		28	Buried at base, decay pocket at 1' with conk, poor connection and poor pruning cut with advanced decay @ 5', poor leaf surface, dead wood 2-3"	Yes	Remove mulch at base, re-evaluate		Diseased and/or Dying	2 Major Structure or Health Problems

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335	Blue Oak	<i>Quercus douglasii</i>	9		21	Buried at base, old pruning cuts below 8', suppressed, fair leaf surface		Remove mulch at base and reevaluate		Diseased and/or Dying	2 Major Structure or Health Problems
336	Blue Oak	<i>Quercus douglasii</i>	11 @ 1'		18	Buried at base, codominant leader at 3, old pruning cuts below 10', both stems bow to N, good leaf surface, poor twig elongation		Remove mulch at base and re-evaluate		Diseased and/or Dying	2 Major Structure or Health Problems
337	Interior Live Oak	<i>Quercus wislizenii</i>	9	9, 7, 9 @ 3'	0	DG at base, codominant leader at 6", rubbing limbs, narrow attachments at 4-6', poor limb removal at 3' to N, N stem leans, fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
338	Interior Live Oak	<i>Quercus wislizenii</i>	13 @ 3'		23	Pruning cuts below 4' are too large - limited SULE, fair leaf surface				Diseased and/or Dying	1 Extreme Structure or Health Problems
339	Interior Live Oak	<i>Quercus wislizenii</i>	8	5, 6, 5, 4	25	Buried at base, crossing stems, U C to N, fair leaf surface		Remove fill at base and reinspect, Prune for good structure		Diseased and/or Dying	2 Major Structure or Health Problems
340	Interior Live Oak	<i>Quercus wislizenii</i>	11	10, 8, 9	25	Codominant leader at b to 1' and 3' in west stems, 6' in center stem, E stem leans, fair leaf surface, epicormic growth-likely due to grade changes or compacted soil		Prune for good structure		Healthy	3 Fair - Minor Problems
341	Interior Live Oak	<i>Quercus wislizenii</i>	9	9	15	Sink pit at 1'- both E and W, resprouting from base, 5" stem removed base, codominant leader at 2', canopy decline with vigorous epicormic growth				Healthy	3 Fair - Minor Problems

Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
342	Interior Live Oak	<i>Quercus wislizenii</i>	18	6, 9	25	22" codominant leader w ad removed at base, 6" crossing 18, 9 leans W, poor leaf surface, mud pit at base, lg opc on 18 at 7' ad			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
343	Valley Oak	<i>Quercus lobata</i>	9		15	Surrounded by compacted soil, epicormic growth, poor twig elongation				Healthy	4 Good - No Apparent Problems
344	Interior Live Oak	<i>Quercus wislizenii</i>	15 @ 1'		19	Buried at base, codominant leader at 2' main stems cross, good leaf surface		Reassess structural issues annually, remove mulch at base and reevaluate		Healthy	3 Fair - Minor Problems
345	Interior Live Oak	<i>Quercus wislizenii</i>	20 @ 3'	9, 9	0	Old 799, in 6', 7, and 10', poor leaf surface - close to complete defoliation but good buds, grading too close				Diseased and/or Dying	2 Major Structure or Health Problems
352	Interior Live Oak	<i>Quercus wislizenii</i>	8"		13	Codominant leader @ 6', Good leaf surface, compacted soil @ 8' away 180deg, large rocks @ base	Yes			Healthy	4 Good - No Apparent Problems
353	Interior Live Oak	<i>Quercus wislizenii</i>	8		17	Slight lean to E, Good leaf surface, good twig elongation, Fill @ base to SW	Yes	Remove fill		Healthy	3 Fair - Minor Problems
354	Interior Live Oak	<i>Quercus wislizenii</i>	13"	9"	23	Codominant leader @ 2', good leaf surface, good twig elongation	Yes			Healthy	4 Good - No Apparent Problems
355	Interior Live Oak	<i>Quercus wislizenii</i>	7"		25	Codominant leader @ 4', N stem leans to N, fair canopy, fair twig elongation	No			Healthy	3 Fair - Minor Problems
356	Interior Live Oak	<i>Quercus wislizenii</i>	15"		20	Codominant leader @ 4', leans E, correction @ 5', fair leaf surface, fair twig elongation	Yes			Healthy	3 Fair - Minor Problems

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357	Interior Live Oak	<i>Quercus wislizenii</i>	12"		21	Small decay pocket (1"x6") @ 4', slight lean to W, poor leaf surface, epicormic growth, poor twig elongation	No		Yes H	Diseased and/or Dying	2 Major Structure or Health Problems
358	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 1'		25	Codominant leader @ 2', suppressed by gray pine from NE, bows to S, poor leaf surface, poor twig elongation, many narrow angle attachments,	Yes		Yes S	Diseased and/or Dying	2 Major Structure or Health Problems
359	Interior Live Oak	<i>Quercus wislizenii</i>	11"		29	Leans to SE, Codominant leader @ 6', narrow angle attachments	Yes		Yes S	Diseased and/or Dying	2 Major Structure or Health Problems
360	Interior Live Oak	<i>Quercus wislizenii</i>	6"		12	Pruning wounds 2"- to 10', leans to W, suppressed by 361 & 362, fair leaf surface, fair twig elongation			Yes S	Diseased and/or Dying	2 Major Structure or Health Problems
361	Interior Live Oak	<i>Quercus wislizenii</i>	9"		23	Leans N, suppressed by 362, limb graft @ 12', fair leaf surface, fair twig elongation	No			<b>Healthy</b>	3 Fair - Minor Problems
362	Interior Live Oak	<i>Quercus wislizenii</i>	9"		17	Leans to S, good leaf surface, fair twig elongation	No			<b>Healthy</b>	3 Fair - Minor Problems
363	Interior Live Oak	<i>Quercus wislizenii</i>	9		13	Small crossing limbs, good leaf surface		Prune for good structure, remove crossing limb		<b>Healthy</b>	3 Fair - Minor Problems
364	Interior Live Oak	<i>Quercus wislizenii</i>	6		13	No canopy space, fair leaf surface		Prune for good structure		<b>Healthy</b>	3 Fair - Minor Problems
365	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 2'	7 @ 1'	0	Puddle at base, narrow attachments, unbalanced canopy to S				Diseased and/or Dying	2 Major Structure or Health Problems

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366	Interior Live Oak	<i>Quercus wislizenii</i>	13	7	21	Poor attachment at 1', Po vines up center, upper canopy narrow attachments, unbalanced canopy to S, fair leaf surface		Remove poison oak, Prune for good structure		Healthy	3 Fair - Minor Problems
367	Interior Live Oak	<i>Quercus wislizenii</i>	9	9	20	Growing into Rocks at 1', abnormal trunk shape, dominant, fair leaf surface.		Remove dead wood		Healthy	3 Fair - Minor Problems
368	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 2'		15	Closing wound with decay at base, Low prostrate limb to SE, unbalanced canopy to SE, good leaf surface	Yes			Healthy	3 Fair - Minor Problems
369	Interior Live Oak	<i>Quercus wislizenii</i>	8		17	Rock at base, slight bow at top to N, fair leaf surface		Prune for good structure		Healthy	4 Good - No Apparent Problems
370	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 2'		17	Diseased, poor structure		Remove	Yes H	Diseased and/or Dying	1 Extreme Structure or Health Problems
371	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 2'		17	Too many limbs at 4', fair leaf surface		Remove dead wood, Prune for good structure		Healthy	3 Fair - Minor Problems
372	Interior Live Oak	<i>Quercus wislizenii</i>	10		20	Large wound 1' to 3' with wound wood and borers, small leaves, fair leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
373	Interior Live Oak	<i>Quercus wislizenii</i>	9		15	Lean and unbalanced canopy to E, suppressed by 372, good leaf surface, closing wound at base	Yes			Diseased and/or Dying	2 Major Structure or Health Problems
374	Interior Live Oak	<i>Quercus wislizenii</i>	10		21	Abnormal flare, narrow attachments at 5'. unbalanced canopy to W, fair leaf surface				Healthy	3 Fair - Minor Problems
375	Interior Live Oak	<i>Quercus wislizenii</i>	10	8	18	Poor connection at 1' - smaller stems, codominant leader at 1', crossing limbs, natural graft, good leaf surface	Yes	Prune for good structure		Healthy	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
376	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'	5, 3	15	Codominant leader at 1', pt, poor leaf surface				Healthy	3 Fair - Minor Problems
377	Interior Live Oak	<i>Quercus wislizenii</i>	7		12	Rocks at base, 2" dead wood @ 6", poor crown ratio				Healthy	3 Fair - Minor Problems
378	Interior Live Oak	<i>Quercus wislizenii</i>	12 @ 1'		20	Abnormal flare, wound at codominant leader crotch at 4', good leaf surface		Re-evaluate in 3 years, Remove dead wood		Diseased and/or Dying	2 Major Structure or Health Problems
379	Interior Live Oak	<i>Quercus wislizenii</i>	8	7, 6	25	Larger stems cross, lean and unbalanced canopy to S, Nest				Healthy	3 Fair - Minor Problems
380	Interior Live Oak	<i>Quercus wislizenii</i>	7	5,5,4	19	Slope, poor leaf surface		Remove dead wood, Prune for good structure		Healthy	3 Fair - Minor Problems
381	Interior Live Oak	<i>Quercus wislizenii</i>	11	10, 9	29	Codominant leader at 1' into 3, Grey Pine 10' to SE, good leaf surface	Yes	Remove dead wood, remove pine		Healthy	4 Good - No Apparent Problems
382	Interior Live Oak	<i>Quercus wislizenii</i>	6		20	Leans at top, good leaf surface	Yes	Remove dead wood and broken limb, Prune for good structure		Healthy	3 Fair - Minor Problems
383	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 1'		19	Growing over rock at base, codominant leader at 2', poor leaf surface	Yes	Prune for good structure		Healthy	3 Fair - Minor Problems
384	Interior Live Oak	<i>Quercus wislizenii</i>	9		14	Unbalanced canopy to S	Yes			Healthy	5 Excellent
385	Interior Live Oak	<i>Quercus wislizenii</i>	8	7, 7	14	Split at base, decay under base			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
386	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 6, 4	14	Narrow angle attachments at base, good leaf surface	Yes	Prune for good structure		Healthy	4 Good - No Apparent Problems
387	Interior Live Oak	<i>Quercus wislizenii</i>	9	8, 6, 4, 7,	16	Most stems fire damage			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
388	Interior Live Oak	<i>Quercus wislizenii</i>	10	9, 7, 7, 6-6 failed, 8, 10, 6	0	Old stump sprout, dead and failed stems, large dead wood, epicormic growth poor twig elongation		Remove dead wood, re-evaluate annually		Diseased and/or Dying	2 Major Structure or Health Problems



Tag	Species Commo n Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
389	Interior Live Oak	<i>Quercus wislizenii</i>	15	14, 10	28	Abnormal flare, 15 and 14 poor connection, 15 significant lean, unbalanced canopy to S, good leaf surface	Yes	Remove dead wood, reduce 15" stem to prevent failure		Healthy	3 Fair - Minor Problems
390	Interior Live Oak	<i>Quercus wislizenii</i>	15 @ 3'	13, 12, 10, 6	25	Growing over rocks, decay under base, limb failures, poor leaf surface, elderberry			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
391	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 2'	10	23	Old 398, 7" dead wood at 6' above burl, poor leaf surface		Remove dead wood, re-evaluate annually		Diseased and/or Dying	2 Major Structure or Health Problems
392	Interior Live Oak	<i>Quercus wislizenii</i>	11 @ 2'		18		Yes			Healthy	4 Good - No Apparent Problems
393	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 2'	7, 7	19	Too much dead wood, poor leaf surface			Yes H	Diseased and/or Dying	2 Major Structure or Health Problems
394	Blue Oak	<i>Quercus douglasii</i>	6		9	Perennial canker b to 2'			Yes H	Diseased and/or Dying	1 Extreme Structure or Health Problems
395	Interior Live Oak	<i>Quercus wislizenii</i>	12	11	0	Fenceline, mostly dead				Diseased and/or Dying	0 Dead
396	Interior Live Oak	<i>Quercus wislizenii</i>	18 @ 2'	17 and 17 @ 2', 5. 4	34	Wide codominant leader into 4 main stems at 1-2', center stem too much ad, S stem has too much decay	Yes	No public no target		Diseased and/or Dying	1 Extreme Structure or Health Problems
397	Interior Live Oak	<i>Quercus wislizenii</i>	14	10, 8	35	Debris at base, growing up rock, codominant leader at 1' crossing limb, abnormal flare, 14 split base to 4' and included bark at 6', unbalanced canopy to S, poor leaf surface, epicormic growth	Yes	Remove debris		Healthy	3 Fair - Minor Problems
398	Interior Live Oak	<i>Quercus wislizenii</i>	16		25	Rock at base, under story structure, unbalanced canopy to N, fair leaf surface				Healthy	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
399	Interior Live Oak	<i>Quercus wislizenii</i>	7		27	Prostrate at 1-2', touches ground again at 10', good leaf surface, interesting				Diseased and/or Dying	1 Extreme Structure or Health Problems
400	Interior Live Oak	<i>Quercus wislizenii</i>	23 @ 3'	14, 11	26	Too much decay and poor structure			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
401	Blue Oak	<i>Quercus douglasii</i>	20		22	Old 251, fill/debris at base, codominant leader at 15', 1-3" dead wood		Remove dead wood		Healthy	4 Good - No Apparent Problems
402	Interior Live Oak	<i>Quercus wislizenii</i>	7"		17	Leans to E, fair leaf surface, poor twig elongation	No	Prune for good structure		Healthy	3 Fair - Minor Problems
403	Interior Live Oak	<i>Quercus wislizenii</i>	22	7, 8 @ 2'	30	Wrapped in poison oak, too much dead wood, poor leaf surface, poor twig elongation, mistletoe dead hausta, nest, low prostrate limbs to S	Yes	No public		Diseased and/or Dying	2 Major Structure or Health Problems
404	Interior Live Oak	<i>Quercus wislizenii</i>	6		10	Old 254, pt, poor leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
405	Interior Live Oak	<i>Quercus wislizenii</i>	7	5, 4	15	Old 253, Codominant leader at 1', bass, UFC to W, poor leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
406	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 4'	6	15	Codominant leader at 1', USC to S, poor leaf surface				Diseased and/or Dying	2 Major Structure or Health Problems
407	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 3'	9	18	Codominant leader at ground, fair leaf surface		Remove dead wood		Healthy	3 Fair - Minor Problems
408	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'	8, 6, 4	20	Narrow angle attachments at 4' & 5', fair leaf surface		Prune for good structure		Healthy	3 Fair - Minor Problems
409	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'	5	17	Codominant leader at 1', poor leaf surface, epicormic growth, unbalanced canopy to S				Healthy	3 Fair - Minor Problems
410	Interior Live Oak	<i>Quercus wislizenii</i>	7	7, 6, 3, 6 @3'	± 20	Codominant leader at base to 6", 6" bows, 3" is prostrate S, crossing limbs		Prune for good structure		Healthy	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
411	Interior Live Oak	<i>Quercus wislizenii</i>	12		± 20	Base buried in mulch, significant lean, decay in main stem, upright regrowth			Yes S	Diseased and/or Dying	1 Extreme Structure or Health Problems
412	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 3'	4, 4	± 25	Stems removed at base, fill at base, epicormic growth base to 3', borers, declining		Remove fill and re-evaluate		Diseased and/or Dying	2 Major Structure or Health Problems
413	Interior Live Oak	<i>Quercus wislizenii</i>	6 @ 2'	6, 6, 5 - all at 2'	± 15	Base buried in mulch, old pruning cuts in dirt, mechanical damage and stub over path		Remove fill and re-evaluate, remove stub with proper cut		Diseased and/or Dying	2 Major Structure or Health Problems
414	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 3'		± 15	Narrow attachment at 3', canopy raised, fair leaf surface, old pruning cut with wound wood at 1' - poor cut (See Photo)		Do not remove epicormic growth at old cut		Healthy	3 Fair - Minor Problems
415	Interior Live Oak	<i>Quercus wislizenii</i>	12 @ 2'		± 10	Overextended canopy to W, good leaf surface, poor attachment with decay below, rock at base		Lights are too tight - unwrap, reduce canopy W to prevent failure. Consider replacement		Diseased and/or Dying	2 Major Structure or Health Problems
416	Interior Live Oak	<i>Quercus wislizenii</i>	9	9, 7	± 20	9" SE split base to 4' with vertical cavity and wound wood, 9-7" W split crotch to 4' with included bark below, decay and borers		Replace or prevent failure with biennial reduction pruning. Note chance of failure increases with time		Diseased and/or Dying	1 Extreme Structure or Health Problems
417	Interior Live Oak	<i>Quercus wislizenii</i>	15	12 @ 4'	± 20	Buried at base, smaller stem significant lean W and over extended, crown was raised		Remove fill and re-evaluate, reduce west stem to prevent failure		Healthy	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Notes	Clearance Pruning Required	Actions	Remove	Rocklin Rating	Arborist Rating
418	Interior Live Oak	<i>Quercus wislizenii</i>	13 @ 1'	12 @ 3', 10 @ 3', 8 @ 1'	± 25	Utility box against trunk, fill?, codominant leader at base - fill in crotch, crossing main stems at 4', 8' (E), lights wrapped too tight		Remove 8" stem at 6" high (to remove crossing), reduce canopy to NW to prevent failure, remove fill in crotch, remove fill at base and re- evaluate		Diseased and/or Dying	2 Major Structure or Health Problems
419	Valley Oak	<i>Quercus lobata</i>	23	20	± 30	Codominant leader at 3' with included bark from ground, DG at base, high target area, fair leaf surface, recent pruning cuts		HIGH RISK AREA - Use qualified ISA certified arborist only for pruning. Reduce canopy extension - do not lion-tail limbs. See Discussion		<b>Healthy</b>	4 Good - No Apparent Problems
420	Valley Oak	<i>Quercus lobata</i>	17		± 25	Buried at base, leans toward pond, poor structure		Remove fill and re-evaluate, keep small with biennial pruning		Diseased and/or Dying	2 Major Structure or Health Problems
421	Blue Oak	<i>Quercus douglasii</i>	9		± 10	Buried at base - filled for parking lot, insects under bark attracting birds, poor canopy development		Remove fill and re-evaluate		Diseased and/or Dying	2 Major Structure or Health Problems
422	Blue Oak	<i>Quercus douglasii</i>	8	6	± 15	Buried at base - filled for parking lot, insects under bark attracting birds, poor canopy development		Remove fill and re-evaluate		Diseased and/or Dying	2 Major Structure or Health Problems
423	Interior Live Oak	<i>Quercus wislizenii</i>	6	6	± 15	7" stem removed at 1', rocks at base, very poor structure - not correctible, lion tailed limbs		Remove or prune biennially to keep small and prevent failure		Diseased and/or Dying	1 Extreme Structure or Health Problems

**BOLD:** Heritage Tree

BLUE: Not Protected

RED: Recommended for Removal

## **Testing & Analysis:**

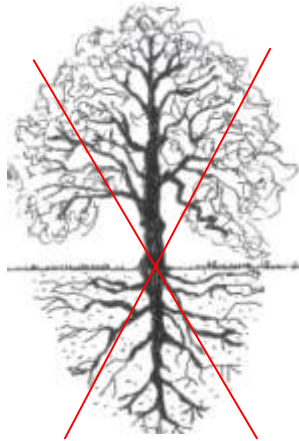
A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture’s best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. No laboratory or chemical testing and analysis was performed, only ground level observations.

A recommended Level 3 – Advanced Assessment should be performed on trees determined during the development process to have a target. Level 3 assessment includes aerial inspection and evaluation of the structural defects of a tree which can include root crown excavation, decay assessment, and load testing for purposes of risk analysis.

## **Discussion:**

### **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 (see Drawing A below). The correct root structure of a tree is in Drawing B. All plants’ roots need both water and air for survival. Surface roots are a common phenomenon with trees grown in compacted soil. Poor canopy development or canopy decline in mature trees is often the result of inadequate root space and/or soil compaction.



***Drawing A***

Common misconception of where tree roots are assumed to be located



***Drawing B***

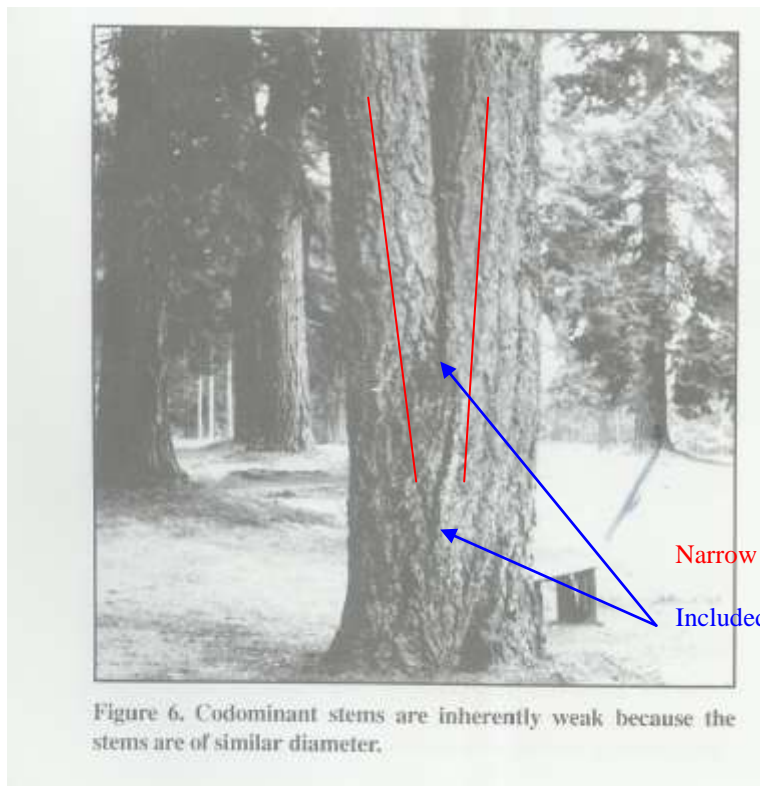
The reality of where roots are generally located

## Structural Issues

Limited space for canopy development produces poor structure in trees. The largest tree in a given area, which is 'shading' the other trees is considered Dominant. The 'shaded' trees are considered Suppressed. The following picture illustrates this point. Suppressed trees are more likely to become a potential hazard due to their poor structure.



Co-dominant leaders are another common structural problem in trees.



The tree in this picture has a co-dominant leader at about 3' and included bark up to 7 or 8'. Included bark occurs when two or more limbs have a narrow angle of attachment resulting in bark between the stems – instead of cell to cell structure. This is considered a critical defect in trees and is the cause of many failures.

Photo from Evaluation of Hazard Trees in Urban Areas by Nelda P. Matheny and James R. Clark, 1994 International Society of Arboriculture

## Pruning Shade Trees for Good Structure

Many of the structural issues common in trees can be eliminated early in the life of a tree through proper pruning resulting in significantly reduced failure risk levels and



substantial savings in pruning costs. Additionally, the risk of branch failure associated with poor structure in middle aged trees can be significantly reduced with correctional pruning. Large, mature trees with structural faults generally cannot be corrected, however, regular appropriate structural pruning can reduce the risk of failure.

According to Ed Gilman in Pruning Strategies<sup>3</sup> structural pruning is:

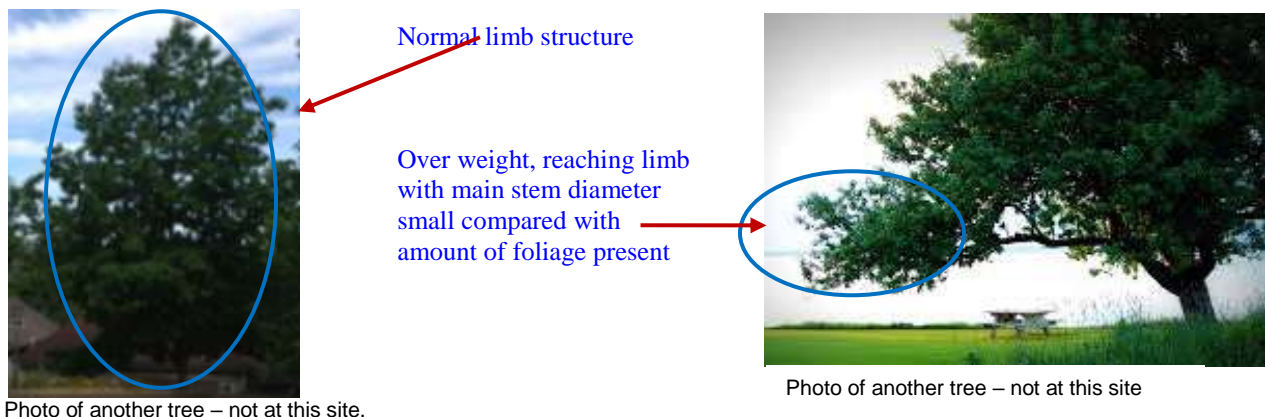
1. Development and maintenance of a dominant central leader;
2. Prevention of temporary limbs (below the permanent crown) from getting too large;
3. Optimal spacing of main branches along the dominant trunk;
4. Prevention or suppression of included bark;
5. Reduction of heavy or over extended branches, or those with defects; and
6. Encouragement of growth in the portion of the tree to be dominant through reduction or removal of other portions.

### Pruning Mature Trees for Risk Reduction

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. 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.

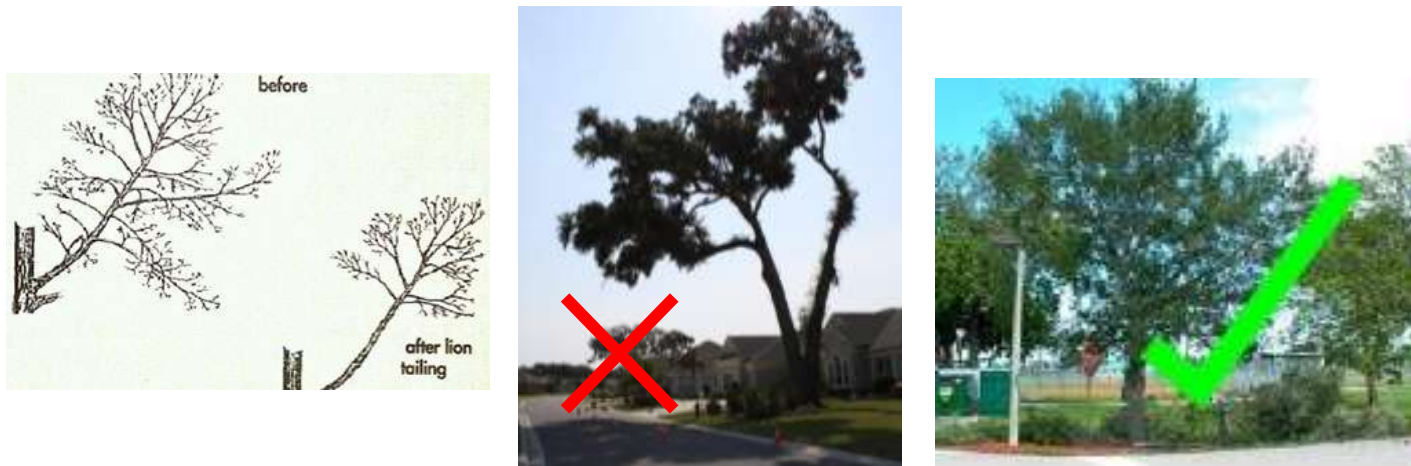
Pruning causes an open wound in the tree. Trees do not "heal" they compartmentalize. Any wound made today will always remain, but a healthy tree, in the absence of decay in the wound, will 'cover it' with callus tissue. Large, old pruning wounds with advanced decay are a likely failure point. Mature trees with large wounds are a high failure risk.

Over weight 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 require annual inspection.



<sup>3</sup> Western Arborist, Winter 2015 Volume 41 Number 4, publication by International Society of Arboriculture

Lion's – Tailing is the pruning practice of removal of “an excessive number of inner and/or lower lateral branches from parent branches. Lion's tailing is not an acceptable pruning practice” ANSI A300 (part 1) 4.23. It increases the risk of failure.



## Arborist Designations

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, but they do not necessarily know anything about trees;

**Arborists:** Arborist is a broad term. It is intended to mean someone with specialized knowledge of trees but is often used to imply knowledge that is not there.

**ISA Certified Arborist:** An International Society of Arboriculture Certified Arborist is someone who has been trained and tested to have specialized knowledge of trees. You can look up certified arborists at the International Society of Arboriculture website: [isa-arbor.org](http://isa-arbor.org).

**Consulting Arborist:** An American Society of Consulting Arborists Registered Consulting Arborist is someone who has been trained and 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:

## Decay in Trees

**Decay (in General):** Fungi cause all decay of living trees. Decay is considered a disease because cell walls are altered, wood strength is affected, and living sapwood cells may be killed. Fungi decay wood by secreting enzymes. Different types of fungi cause different types of decay through the secretion of different chemical enzymes. Some decays, such as white rot, cause less wood strength loss than others because they first attack the lignin (causes cell walls to thicken and reduces susceptibility to decay and pest damage) secondarily the cellulose (another structural component in a cell walls). Others, such as soft rot, attack the cellulose chain and cause substantial losses in wood strength even in the initial stages of decay. Brown rot causes wood to become brittle and fractures easily with tension. Identification of internal decay in a tree is difficult because visible evidence may not be present.





According to Evaluation of Hazard Trees in Urban Areas (Matheny, 1994) decay is a critical factor in the stability of the tree. As decay progresses in the trunk, the stem becomes a hollow tube or cylinder rather than a solid rod. This change is not readily apparent to the casual observer. Trees require only a small amount of bark and wood to transport water, minerals and sugars. Interior heartwood can be eliminated (or degraded) to a great degree without compromising the transport process. Therefore, trees can contain significant amounts of decay without showing decline symptoms in the crown.

Compartmentalization of decay in trees is a biological process in which the cellular tissue around wounds is changed to

inhibit fungal growth and provide a barrier against the spread of decay agents into additional cells. The weakest of the barrier zones is the formation of the vertical wall.

Accordingly, while a tree may be able to limit decay progression inward at large pruning cuts, in the event that there are more than one pruning cut located vertically along the main trunk of the tree, the likelihood of decay progression and the associated structural loss of integrity of the internal wood is high.



### **Oak Tree Impacts**

Our native oak trees are easily damaged or killed by having the soil within the Critical Root Zone (CRZ) disturbed or compacted. All of the work initially performed around protected trees that will be saved should be done by people rather than by wheeled or track type tractors. Oaks are fragile giants that can take little change in soil grade, compaction, or warm season watering. Don't be fooled into believing that warm season watering has no adverse effects on native oaks. Decline and eventual death can take as long as 5-20 years with poor care and inappropriate watering. Oaks can live hundreds of years if treated properly during construction, as well as later with proper pruning, and the appropriate landscape/irrigation design.

### **Conclusion:**

There are Two Hundred Seventeen (217) trees on this property that qualify as "protected trees" by the standards of the City of Rocklin Oak Tree Preservation Guidelines.

One (1) of the protected trees are Healthy. Arborist rating 5 – Excellent.

Eighteen (18) of the protected trees are Healthy. Arborist rating 4.

Seventy-Nine (79) of the protected trees are Healthy. Arborist rating 3.

#### **Ninety-Eight Healthy Trees**

Seventy-Four (74) of the protected trees are Diseased and/or Dying – Category 2. Arborist rating 2.

Forty-Five (45) of the protected trees are Diseased and/or Dying – Category 1. Arborist rating 0 or 1.

#### **One Hundred Nineteen Diseased and/or Dying Trees**

Two (2) additional trees on the site were tagged but are not protected by size. A total of 219 trees were tagged and evaluated, of which 23 are Blue Oak, 190 are Interior Live Oak, and 6 are Valley Oak.

**See Chart B – Inventory of Trees for specific information on each tree.**

There are Ten (10) Heritage trees, TDBH of 24” or more, on the property, of which 2 are in poor condition.

### **General Recommendations for Development Planning:**

1. All trees to be saved shall have their root zones and trunk(s) protected with a four (4') foot high orange or yellow plastic, high visibility exclusionary fence surrounding the trees' root zone. The fence shall be staked 10' o.c. maximum spacing, with 5' steel "T" posts, 2" x 2" square or 2"+  $\varnothing$  wood posts. The exclusionary area shall be under the tree's branched canopy and extend out to the tree's longest dripline radius plus one foot, as a circle. Where new construction will be within the Protected Root Zone, the fencing shall be 4' away from the footings, and extend around the rest of the canopy of the tree from that point. The fencing shall be maintained and not removed until the completion of construction. The fencing shall completely surround the Protected Root Zone and not be "U" shaped or open at any point. Whenever possible, include as many trees that are to be saved into one fenced exclusionary Protected Root Zone. The fencing plan will be completed once the developer decides on driveway, utility, and structure placement.
2. As soon as the concrete is poured and the forms are stripped, backfill the footings and stem walls. The protected trees nearby that are to remain should be watered to the point of soil saturation.
3. Care must also be continued after the construction is over to select the right plants to live under and near the native oaks. Watered lawns and any frequent summer watering near California oaks will not mix well over a long period. This will cause the oaks to perish due to *Armillaria mellea* (oak root fungus). The demise of the native oaks due to *Armillaria mellea* may take 5 – 20 years. Oaks should live 200 - 300 years.
4. To help control root damage, utility-trenching paths are to be established away from the roots and branches of the oaks that are to remain.
5. Soil compaction shall be avoided by maintaining the exclusionary Protected Root Zone fencing, keeping material storage, people, portable outhouses, vehicles, and dogs out of this area.
6. Soil contamination shall be avoided by eliminating chemical dumping on the property that may infiltrate into the Protected Root Zone. **No**: washing, dumping, or contaminating the site including but not necessarily limited to the following: concrete from tools or trucks, paint materials, sheetrock mud or stucco materials, other chemicals, solvents, herbicides, etc. Limestone gravel should not be used as base material or for drain rock as it will change the pH to be more alkaline, and may harm the native oaks.

7. Do not nail, tie, screw, or fasten any signs, braces, etc. to the trees that are to remain.
8. The cut and fill material excavated from or added to the lot can kill an oak by removing too many roots, drying or wetting the soil or by suffocating the roots with too much soil. Care must be taken with the added soil as well as with the actual excavation. Roots need air as much as they need water to survive and for the whole tree to live and to flourish. If fill material is needed, properly designed aeration/ventilation systems made to protect the trees and allow for the fill material can be installed.
9. When deciding on a pruning arborist, inquire about a chipper and require them to utilize the chipped branches of the trees to be removed or pruned. The chips are to be used under the oaks that are to remain, as mulch in the Protected Root Zone. Other mulch may be used of arborist type woodchips (4 – 6" deep), but not redwood or cedar bark.
10. When the recommended pruning is completed, it is only advisable if a qualified ISA Certified Arborist is on site. No cutting of live wood over 2"Ø shall be made. All cutting, pruning, trimming, cabling, guying, bracing, and lightning protection systems shall conform to the most current standards of the American National Standards Institute (ANSI). The current ANSI Tree Care Standards are A300 (Parts 1-4) 2000 to 2002 (copies at: [www.ansi.org](http://www.ansi.org)). The BMPs are "Best Management Practices", as companion publications to the ANSI Tree Care Standards, printed by the International Society of Arboriculture (copies at: [www.isa-arbor.com](http://www.isa-arbor.com)). The BMP booklets explain the details of the ANSI Tree Care Standards and how to follow them correctly. Pruning of branches under 3" in diameter should be made with sharp hand tools: pruners, loppers, and/or handsaws, not chainsaws.

These important details will greatly increase the likelihood of survival for your protected trees.

## Chart C – Development Status Report

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
201	Blue Oak	<i>Quercus douglasii</i>	16		27	Outside Project Impact Area	2 Major Structure or Health Problems
<b>202</b>	<b>Blue Oak</b>	<b><i>Quercus douglasii</i></b>	<b>28</b>		<b>29</b>	Outside Project Impact Area	<b>3 Fair - Minor Problems</b>
<b>203</b>	<b>Blue Oak</b>	<b><i>Quercus douglasii</i></b>	<b>28</b>		<b>38</b>	Outside Project Impact Area	<b>3 Fair - Minor Problems</b>
204	Blue Oak	<i>Quercus douglasii</i>	6		0	Outside Project Impact Area	2 Major Structure or Health Problems
<b>205</b>	<b>Blue Oak</b>	<b><i>Quercus douglasii</i></b>	<b>32</b>		<b>39</b>	Outside Project Impact Area	<b>4 Good - No Apparent Problems</b>
206	Blue Oak	<i>Quercus douglasii</i>	10 @ 3'		26	Outside Project Impact Area	2 Major Structure or Health Problems
207	Interior Live Oak	<i>Quercus wislizenii</i>	8	6	22	Outside Project Impact Area	2 Major Structure or Health Problems
208	Interior Live Oak	<i>Quercus wislizenii</i>	9		23	Outside Project Impact Area	2 Major Structure or Health Problems
209	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 3	21	Outside Project Impact Area	3 Fair - Minor Problems
210	Interior Live Oak	<i>Quercus wislizenii</i>	10		16	Outside Project Impact Area	3 Fair - Minor Problems
211	Interior Live Oak	<i>Quercus wislizenii</i>	21		28	Outside Project Impact Area	4 Good - No Apparent Problems
212	Interior Live Oak	<i>Quercus wislizenii</i>	18 @ 3'		22	Outside Project Impact Area	2 Major Structure or Health Problems
213	Interior Live Oak	<i>Quercus wislizenii</i>	17		20	Outside Project Impact Area	3 Fair - Minor Problems
214	Interior Live Oak	<i>Quercus wislizenii</i>	15		17	Outside Project Impact Area	2 Major Structure or Health Problems
<b>215</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>19</b>		<b>23</b>	Outside Project Impact Area	<b>1 Extreme Structure or Health Problems</b>
216	Blue Oak	<i>Quercus douglasii</i>	13		24	Outside Project Impact Area	3 Fair - Minor Problems
<b>217</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>14</b>		<b>20</b>	Outside Project Impact Area	<b>1 Extreme Structure or Health Problems</b>
<b>218</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>23</b>		<b>29</b>	Outside Project Impact Area	<b>1 Extreme Structure or Health Problems</b>
<b>219</b>	<b>Blue Oak</b>	<b><i>Quercus douglasii</i></b>	<b>42</b>		<b>32</b>	Outside Project Impact Area	<b>1 Extreme Structure or Health Problems</b>
<b>220</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>+/- 35 at base</b>		<b>30</b>	Outside Project Impact Area	<b>3 Fair - Minor Problems</b>
221	Interior Live Oak	<i>Quercus wislizenii</i>	10	10, 8	17	Remove Parking	3 Fair - Minor Problems
222	Blue Oak	<i>Quercus douglasii</i>	8		13	Remove Parking	2 Major Structure or Health Problems
223	Interior Live Oak	<i>Quercus wislizenii</i>	8	6, 4	14	Remove Parking	3 Fair - Minor Problems
224	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 4	15	Remove Parking	2 Major Structure or Health Problems
225	Interior Live Oak	<i>Quercus wislizenii</i>	16 @ 3'	12, 10	30	Remove Parking	3 Fair - Minor Problems
<b>226</b>	<b>Blue Oak</b>	<b><i>Quercus douglasii</i></b>	<b>12</b>		<b>22</b>	Remove Parking	<b>1 Extreme Structure or Health Problems</b>
<b>227</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>8</b>	<b>8, 8, 8</b>	<b>18</b>	Remove Parking	<b>1 Extreme Structure or Health Problems</b>
228	Valley Oak	<i>Quercus lobata</i>	9		0	Remove Parking	2 Major Structure or Health Problems
229	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 5	17	Remove Parking	2 Major Structure or Health Problems
<b>230</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>9 @ 3'</b>		<b>22</b>	Remove Parking	<b>1 Extreme Structure or Health Problems</b>

March 29, 2017

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
231	Interior Live Oak	<i>Quercus wislizenii</i>	8	7	24	Remove Parking	2 Major Structure or Health Problems
232	Interior Live Oak	<i>Quercus wislizenii</i>	8	8	21	Remove Parking	3 Fair - Minor Problems
233	Interior Live Oak	<i>Quercus wislizenii</i>	13	13, 13, 12, 12, 10, 9, 8	0	Remove Parking	3 Fair - Minor Problems
234	Interior Live Oak	<i>Quercus wislizenii</i>	8	7, 5	16	Remove Fire Station Footprint	1 Extreme Structure or Health Problems
235	Interior Live Oak	<i>Quercus wislizenii</i>	14	12, 12, 10, 9, 8, 8	34	Remove Fire Station Footprint	2 Major Structure or Health Problems
236	Interior Live Oak	<i>Quercus wislizenii</i>	9		30	Remove Fire Station Footprint	1 Extreme Structure or Health Problems
237	Interior Live Oak	<i>Quercus wislizenii</i>	8	4	15	Remove Fire Station Footprint	2 Major Structure or Health Problems
238	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 3'	5	12	Remove Fire Station Footprint	2 Major Structure or Health Problems
239	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 1'		13	Remove Fire Station Footprint	3 Fair - Minor Problems
239	Interior Live Oak	<i>Quercus wislizenii</i>	9	8, 7, 6	20	Remove Fire Station Footprint	3 Fair - Minor Problems
240	Interior Live Oak	<i>Quercus wislizenii</i>	9	8, 7, 6	20	Remove Fire Station Footprint	3 Fair - Minor Problems
241	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 1', 11 @ 1'		18	Remove Fire Station Footprint	2 Major Structure or Health Problems
242	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'		12	Remove Fire Station Footprint	3 Fair - Minor Problems
243	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 1'		9	Remove Fire Station Footprint	2 Major Structure or Health Problems
244	Interior Live Oak	<i>Quercus wislizenii</i>	10	7, 9, 6, 8, 3, 5, 6, 5, 8, 3, 3	0	Remove Fire Station Footprint	3 Fair - Minor Problems
244	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'		12	Remove Fire Station Footprint	3 Fair - Minor Problems
245	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 1'	2	14	Remove Fire Station Footprint	3 Fair - Minor Problems
246	Valley Oak	<i>Quercus lobata</i>	10		12	Remove Fire Station Footprint	2 Major Structure or Health Problems
247	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 1'		13	Remove Fire Station Footprint	3 Fair - Minor Problems
248	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'		17	Remove Fire Station Footprint	3 Fair - Minor Problems
249	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 6"	6, 4, 6, 4, 6, 3	0	Remove Fire Station Footprint	1 Extreme Structure or Health Problems
250	Interior Live Oak	<i>Quercus wislizenii</i>	18 @ 1'		24	Remove Fire Station Footprint	4 Good - No Apparent Problems
251	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 4, 4, 4, 3, 3, 3	13	Remove Fire Station Footprint	2 Major Structure or Health Problems
252	Blue Oak	<i>Quercus douglasii</i>	6	4	12	Remove Fire Station Footprint	1 Extreme Structure or Health Problems
253	Interior Live Oak	<i>Quercus wislizenii</i>	12 @ 2'		15	Remove Fire Station Footprint	3 Fair - Minor Problems
255	Interior Live Oak	<i>Quercus wislizenii</i>	10	9, 7, 6, 5, 4, 3, 3, 3, 3, 2, 3, 7	25	Remove Fire Station Footprint	2 Major Structure or Health Problems
256	Interior Live Oak	<i>Quercus wislizenii</i>	8 at 1'	5, 3	18	Preserve - Fire Station	3 Fair - Minor Problems
257	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 4, 4, 4, 3, 3	20	Preserve - Fire Station	2 Major Structure or Health Problems



Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
258	Interior Live Oak	<i>Quercus wislizenii</i>	8	8, 6, 5, 3, 3, 2, 2, 2, 2, 2	21	Preserve - Fire Station	3 Fair - Minor Problems
<b>259</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>28 @ 2'</b>		<b>30</b>	Preserve - Fire Station	<b>4 Good - No Apparent Problems</b>
260	Interior Live Oak	<i>Quercus wislizenii</i>	6		15	Remove Parking	2 Major Structure or Health Problems
261	Interior Live Oak	<i>Quercus wislizenii</i>	6 @ 1'		11	Preserve - Parking Area	3 Fair - Minor Problems
262	Interior Live Oak	<i>Quercus wislizenii</i>	10	5, 4, 2, 2, 2	18	Outside Project Impact Area	1 Extreme Structure or Health Problems
263	Interior Live Oak	<i>Quercus wislizenii</i>	7	5, 4, 3	15	Outside Project Impact Area	1 Extreme Structure or Health Problems
264	Interior Live Oak		5	3	16	Outside Project Impact Area	2 Major Structure or Health Problems
265	Interior Live Oak	<i>Quercus wislizenii</i>	14 @ 1'	11 @ 1', 7, 6	24	Outside Project Impact Area	3 Fair - Minor Problems
266	Interior Live Oak		5	5	24	Outside Project Impact Area	1 Extreme Structure or Health Problems
267	Interior Live Oak	<i>Quercus wislizenii</i>	12	11, 8, 3	0	Outside Project Impact Area	2 Major Structure or Health Problems
268	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'	5, 6, 4, 7 @ 2', 4	26	Outside Project Impact Area	1 Extreme Structure or Health Problems
269	Interior Live Oak	<i>Quercus wislizenii</i>	6	4, 4	14	Outside Project Impact Area	1 Extreme Structure or Health Problems
270	Blue Oak	<i>Quercus douglasii</i>	9		12	Outside Project Impact Area	2 Major Structure or Health Problems
271	Interior Live Oak	<i>Quercus wislizenii</i>	16 @ 1'		17	Outside Project Impact Area	3 Fair - Minor Problems
<b>272</b>	<b>Interior Live Oak</b>	<b><i>Quercus wislizenii</i></b>	<b>36 @ 1'</b>		<b>30</b>	Outside Project Impact Area	<b>1 Extreme Structure or Health Problems</b>
272	Interior Live Oak	<i>Quercus wislizenii</i>	6		18	Outside Project Impact Area	1 Extreme Structure or Health Problems
273	Interior Live Oak	<i>Quercus wislizenii</i>	12		26	Outside Project Impact Area	3 Fair - Minor Problems
274	Blue Oak	<i>Quercus douglasii</i>	7		8	Outside Project Impact Area	4 Good - No Apparent Problems
275	Interior Live Oak	<i>Quercus wislizenii</i>	14	12, 11	25	Outside Project Impact Area	3 Fair - Minor Problems
276	Interior Live Oak	<i>Quercus wislizenii</i>	7		26	Outside Project Impact Area	2 Major Structure or Health Problems
277	Interior Live Oak	<i>Quercus wislizenii</i>	6	4	0	Outside Project Impact Area	1 Extreme Structure or Health Problems
278	Interior Live Oak	<i>Quercus wislizenii</i>	17		28	Outside Project Impact Area	2 Major Structure or Health Problems
279	Interior Live Oak	<i>Quercus wislizenii</i>	11		24	Outside Project Impact Area	4 Good - No Apparent Problems
280	Blue Oak	<i>Quercus douglasii</i>	7		18	Outside Project Impact Area	3 Fair - Minor Problems
281	Interior Live Oak	<i>Quercus wislizenii</i>	8	8	31	Outside Project Impact Area	3 Fair - Minor Problems
<b>282</b>	<b>Valley Oak</b>	<b><i>Quercus lobata</i></b>	<b>24</b>		<b>38</b>	Outside Project Impact Area	<b>3 Fair - Minor Problems</b>
283	Interior Live Oak	<i>Quercus wislizenii</i>	8		15	Outside Project Impact Area	2 Major Structure or Health Problems
<b>284</b>	<b>Blue Oak</b>	<b><i>Quercus douglasii</i></b>	<b>26</b>		<b>36</b>	Outside Project Impact Area	<b>4 Good - No Apparent Problems</b>
285	Interior Live Oak	<i>Quercus wislizenii</i>	10 (not measured)	8, 9	22	Outside Project Impact Area	3 Fair - Minor Problems
286	Interior Live Oak	<i>Quercus wislizenii</i>	8	5	0	Outside Project Impact Area	2 Major Structure or Health Problems
287	Interior Live Oak	<i>Quercus wislizenii</i>	18	15	27	Outside Project Impact Area	2 Major Structure or Health Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
288	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 1'		20	Outside Project Impact Area	1 Extreme Structure or Health Problems
289	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 2'		18	Outside Project Impact Area	3 Fair - Minor Problems
290	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'		22	Outside Project Impact Area	1 Extreme Structure or Health Problems
291	Interior Live Oak	<i>Quercus wislizenii</i>	16	11	0	Outside Project Impact Area	2 Major Structure or Health Problems
292	Interior Live Oak	<i>Quercus wislizenii</i>	9	5	25	Outside Project Impact Area	2 Major Structure or Health Problems
293	Interior Live Oak	<i>Quercus wislizenii</i>	6		25	Outside Project Impact Area	1 Extreme Structure or Health Problems
294	Interior Live Oak	<i>Quercus wislizenii</i>	10		21	Outside Project Impact Area	1 Extreme Structure or Health Problems
295	Interior Live Oak	<i>Quercus wislizenii</i>	8		25	Outside Project Impact Area	1 Extreme Structure or Health Problems
296	Interior Live Oak	<i>Quercus wislizenii</i>	18	10, 12, 15	0	Outside Project Impact Area	1 Extreme Structure or Health Problems
297	Interior Live Oak	<i>Quercus wislizenii</i>	11		15	Outside Project Impact Area	1 Extreme Structure or Health Problems
298	Interior Live Oak	<i>Quercus wislizenii</i>	8	6	15	Outside Project Impact Area	2 Major Structure or Health Problems
299	Interior Live Oak	<i>Quercus wislizenii</i>	14 @ 1'	8, 11, 11 @ 3', 9	22	Remove Parking	2 Major Structure or Health Problems
300	Interior Live Oak	<i>Quercus wislizenii</i>	10	8, 6, 4, 7, 7, 4	22	Remove Parking	2 Major Structure or Health Problems
301	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 1'		18	Remove Parking	3 Fair - Minor Problems
302	Interior Live Oak	<i>Quercus wislizenii</i>	12	12, 9	28	Remove Parking	3 Fair - Minor Problems
303	Interior Live Oak	<i>Quercus wislizenii</i>	18	10, 9	30	Remove Parking	2 Major Structure or Health Problems
304	Blue Oak	<i>Quercus douglasii</i>	7 @ 1'		0	Remove Parking	3 Fair - Minor Problems
305	Interior Live Oak	<i>Quercus wislizenii</i>	26 @ 1'		27	Remove Parking	4 Good - No Apparent Problems
306	Interior Live Oak	<i>Quercus wislizenii</i>	20	15, 12, 10	31	Remove Parking	2 Major Structure or Health Problems
307	Interior Live Oak	<i>Quercus wislizenii</i>	10	5	23	Remove Parking	1 Extreme Structure or Health Problems
308	Interior Live Oak	<i>Quercus wislizenii</i>	11	10, 8, 8, 7	34	Remove Parking	3 Fair - Minor Problems
309	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 2'	5, 6	17	Remove Parking	3 Fair - Minor Problems
310	Interior Live Oak	<i>Quercus wislizenii</i>	12	11, 10, 10, 9, 8, 8, 8, 7, 7, 6, & run 8, 6, 7, 6	0	Remove Parking	2 Major Structure or Health Problems
311	Interior Live Oak	<i>Quercus wislizenii</i>	7	7	15	Remove Parking	3 Fair - Minor Problems
312	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 5	16	Remove Parking	2 Major Structure or Health Problems
313	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 3'	7, 7	18	Remove Parking	3 Fair - Minor Problems
314	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 6	21	Remove Parking	1 Extreme Structure or Health Problems
315	Interior Live Oak	<i>Quercus wislizenii</i>	7	5, 5	17	Remove Parking	2 Major Structure or Health Problems
316	Interior Live Oak	<i>Quercus wislizenii</i>	8		16	Remove Parking	2 Major Structure or Health Problems
317	Interior Live Oak	<i>Quercus wislizenii</i>	8 @ 1'		19	Remove Parking	2 Major Structure or Health Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
318	Interior Live Oak	<i>Quercus wislizenii</i>	8	5	13	Remove Parking	2 Major Structure or Health Problems
319	Interior Live Oak	<i>Quercus wislizenii</i>	6	3	12	Remove Parking	3 Fair - Minor Problems
320	Interior Live Oak	<i>Quercus wislizenii</i>	7		20	Remove Parking	1 Extreme Structure or Health Problems
321	Interior Live Oak	<i>Quercus wislizenii</i>	9	7, 7, 6, 5, 4	24	Remove Parking	1 Extreme Structure or Health Problems
322	Interior Live Oak	<i>Quercus wislizenii</i>	15 @ 2'	12, 12, 10	0	Remove for Quarry Park	4 Good - No Apparent Problems
323	Interior Live Oak	<i>Quercus wislizenii</i>	13	11, 10, 6	26	Remove for Quarry Park	3 Fair - Minor Problems
324	Interior Live Oak	<i>Quercus wislizenii</i>	8	7	0	Remove for Quarry Park	3 Fair - Minor Problems
325	Interior Live Oak	<i>Quercus wislizenii</i>	6	6, 6	23	Remove for Quarry Park	1 Extreme Structure or Health Problems
326	Interior Live Oak	<i>Quercus wislizenii</i>	7	6	25	Remove for Quarry Park	2 Major Structure or Health Problems
327	Interior Live Oak	<i>Quercus wislizenii</i>	15	13, 12, 7, 11, 12	35	Remove for Quarry Park	1 Extreme Structure or Health Problems
328	Interior Live Oak	<i>Quercus wislizenii</i>	8	8, 6, 5, 5, 5, 5, 4, 3	26	Remove for Quarry Park	2 Major Structure or Health Problems
329	Interior Live Oak	<i>Quercus wislizenii</i>	9		20	Remove for Quarry Park	3 Fair - Minor Problems
330	Interior Live Oak	<i>Quercus wislizenii</i>	14		0	Preserve - Quarry Park	2 Major Structure or Health Problems
331	Blue Oak	<i>Quercus douglasii</i>	12 @ 1'	11 @ 1', 7	25	Preserve - Quarry Park	3 Fair - Minor Problems
332	Interior Live Oak	<i>Quercus wislizenii</i>	9	9	32	Preserve - Quarry Park	3 Fair - Minor Problems
333	Interior Live Oak	<i>Quercus wislizenii</i>	20 @ 4'		28	Preserve - Quarry Park	2 Major Structure or Health Problems
334	Interior Live Oak	<i>Quercus wislizenii</i>	15 @ 1'		19	Preserve - Quarry Park	3 Fair - Minor Problems
335	Blue Oak	<i>Quercus douglasii</i>	9		21	Preserve - Quarry Park	2 Major Structure or Health Problems
336	Blue Oak	<i>Quercus douglasii</i>	11 @ 1'		18	Preserve - Quarry Park	2 Major Structure or Health Problems
337	Interior Live Oak	<i>Quercus wislizenii</i>	9	9, 7, 9 @ 3'	0	Preserve - Quarry Park	2 Major Structure or Health Problems
338	Interior Live Oak	<i>Quercus wislizenii</i>	13 @ 3'		23	Preserve - Quarry Park	1 Extreme Structure or Health Problems
339	Interior Live Oak	<i>Quercus wislizenii</i>	8	5, 6, 5, 4	25	Preserve - Quarry Park	2 Major Structure or Health Problems
340	Interior Live Oak	<i>Quercus wislizenii</i>	11	10, 8, 9	25	Preserve - Quarry Park	3 Fair - Minor Problems
341	Interior Live Oak	<i>Quercus wislizenii</i>	9	9	15	Preserve - Quarry Park	3 Fair - Minor Problems
342	Interior Live Oak	<i>Quercus wislizenii</i>	18	6, 9	25	Remove for Quarry Park	1 Extreme Structure or Health Problems
343	Valley Oak	<i>Quercus lobata</i>	9		15	Remove for Quarry Park	4 Good - No Apparent Problems
344	TBD	TBD	TBD			Preserve - Quarry Park	
345	Interior Live Oak	<i>Quercus wislizenii</i>	20 @ 3'	9, 9	0	Preserve - Quarry Park	2 Major Structure or Health Problems
346	TBD	TBD	TBD			Remove for Quarry Park	3 Fair - Minor Problems
347	TBD	TBD	TBD			Remove for Quarry Park	3 Fair - Minor Problems
348	TBD	TBD	TBD			Preserve - Quarry Park	
349	TBD	TBD	TBD			Preserve - Quarry Park	



March 29, 2017

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
350	TBD	TBD	TBD			Remove for Quarry Park	3 Fair - Minor Problems
351	TBD	TBD	TBD			Remove for Quarry Park	3 Fair - Minor Problems
352	Interior Live Oak	<i>Quercus wislizenii</i>	8"		13	Preserve - Quarry Park	4 Good - No Apparent Problems
353	Interior Live Oak	<i>Quercus wislizenii</i>	8		17	Preserve - Quarry Park	3 Fair - Minor Problems
354	Interior Live Oak	<i>Quercus wislizenii</i>	13"	9"	23	Preserve - Quarry Park	4 Good - No Apparent Problems
355	Interior Live Oak	<i>Quercus wislizenii</i>	7"		25	Preserve - Quarry Park	3 Fair - Minor Problems
356	Interior Live Oak	<i>Quercus wislizenii</i>	15"		20	Preserve - Quarry Park	3 Fair - Minor Problems
357	Interior Live Oak	<i>Quercus wislizenii</i>	12"		21	Preserve - Quarry Park	2 Major Structure or Health Problems
358	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 1'		25	Remove for Quarry Park	2 Major Structure or Health Problems
359	Interior Live Oak	<i>Quercus wislizenii</i>	11"		29	Remove for Quarry Park	2 Major Structure or Health Problems
360	Interior Live Oak	<i>Quercus wislizenii</i>	6"		12	Remove for Quarry Park	2 Major Structure or Health Problems
361	Interior Live Oak	<i>Quercus wislizenii</i>	9"		23	Preserve - Quarry Park	3 Fair - Minor Problems
362	Interior Live Oak	<i>Quercus wislizenii</i>	9"		17	Preserve - Quarry Park	3 Fair - Minor Problems
363	Interior Live Oak	<i>Quercus wislizenii</i>	9		13	Preserve - Quarry Park	3 Fair - Minor Problems
364	Interior Live Oak	<i>Quercus wislizenii</i>	6		13	Preserve - Quarry Park	3 Fair - Minor Problems
365	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 2'	7 @ 1'	0	Preserve - Quarry Park	2 Major Structure or Health Problems
366	Interior Live Oak	<i>Quercus wislizenii</i>	13	7	21	Preserve - Quarry Park	3 Fair - Minor Problems
367	Interior Live Oak	<i>Quercus wislizenii</i>	9	9	20	Preserve - Quarry Park	3 Fair - Minor Problems
368	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 2'		15	Preserve - Quarry Park	3 Fair - Minor Problems
369	Interior Live Oak	<i>Quercus wislizenii</i>	8		17	Preserve - Quarry Park	4 Good - No Apparent Problems
370	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 2'		17	Remove for Quarry Park	1 Extreme Structure or Health Problems
371	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 2'		17	Preserve - Quarry Park	3 Fair - Minor Problems
372	Interior Live Oak	<i>Quercus wislizenii</i>	10		20	Preserve - Quarry Park	2 Major Structure or Health Problems
373	Interior Live Oak	<i>Quercus wislizenii</i>	9		15	Preserve - Quarry Park	2 Major Structure or Health Problems
374	Interior Live Oak	<i>Quercus wislizenii</i>	10		21	Preserve - Quarry Park	3 Fair - Minor Problems
375	Interior Live Oak	<i>Quercus wislizenii</i>	10	8	18	Preserve - Quarry Park	3 Fair - Minor Problems
376	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'	5, 3	15	Preserve - Quarry Park	3 Fair - Minor Problems
377	Interior Live Oak	<i>Quercus wislizenii</i>	7		12	Preserve - Quarry Park	3 Fair - Minor Problems
378	Interior Live Oak	<i>Quercus wislizenii</i>	12 @ 1'		20	Preserve - Quarry Park	2 Major Structure or Health Problems
379	Interior Live Oak	<i>Quercus wislizenii</i>	8	7, 6	25	Preserve - Quarry Park	3 Fair - Minor Problems
380	Interior Live Oak	<i>Quercus wislizenii</i>	7	5,5,4	19	Preserve - Quarry Park	3 Fair - Minor Problems
381	Interior Live Oak	<i>Quercus wislizenii</i>	11	10, 9	29	Preserve - Quarry Park	4 Good - No Apparent Problems
382	Interior Live Oak	<i>Quercus wislizenii</i>	6		20	Preserve - Quarry Park	3 Fair - Minor Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
383	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 1'		19	Preserve - Quarry Park	3 Fair - Minor Problems
384	Interior Live Oak	<i>Quercus wislizenii</i>	9		14	Preserve - Quarry Park	5 Excellent
385	Interior Live Oak	<i>Quercus wislizenii</i>	8	7, 7	14	Remove for Quarry Park	1 Extreme Structure or Health Problems
386	Interior Live Oak	<i>Quercus wislizenii</i>	7	6, 6, 4	14	Preserve - Quarry Park	4 Good - No Apparent Problems
387	Interior Live Oak	<i>Quercus wislizenii</i>	9	8, 6, 4, 7,	16	Remove for Quarry Park	1 Extreme Structure or Health Problems
388	Interior Live Oak	<i>Quercus wislizenii</i>	10	9, 7, 7, 6-6 failed, 8, 10, 6	0	Preserve - Quarry Park	2 Major Structure or Health Problems
389	Interior Live Oak	<i>Quercus wislizenii</i>	15	14, 10	28	Preserve - Quarry Park	3 Fair - Minor Problems
390	Interior Live Oak	<i>Quercus wislizenii</i>	15 @ 3'	13, 12, 10, 6	25	Remove for Quarry Park	1 Extreme Structure or Health Problems
391	Interior Live Oak	<i>Quercus wislizenii</i>	17 @ 2'	10	23	Preserve - Quarry Park	2 Major Structure or Health Problems
392	Interior Live Oak	<i>Quercus wislizenii</i>	11 @ 2'		18	Preserve - Quarry Park	4 Good - No Apparent Problems
393	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 2'	7, 7	19	Remove for Quarry Park	2 Major Structure or Health Problems
394	Blue Oak	<i>Quercus douglasii</i>	6		9	Remove for Quarry Park	1 Extreme Structure or Health Problems
395	Interior Live Oak	<i>Quercus wislizenii</i>	12	11	0	Remove for Quarry Park	0 Dead
396	Interior Live Oak	<i>Quercus wislizenii</i>	18 @ 2'	17 and 17 @ 2', 5.4	34	Preserve - Quarry Park	1 Extreme Structure or Health Problems
397	Interior Live Oak	<i>Quercus wislizenii</i>	14	10, 8	35	Preserve - Quarry Park	3 Fair - Minor Problems
398	Interior Live Oak	<i>Quercus wislizenii</i>	16		25	Preserve - Quarry Park	3 Fair - Minor Problems
399	Interior Live Oak	<i>Quercus wislizenii</i>	7		27	Preserve - Quarry Park	1 Extreme Structure or Health Problems
400	Interior Live Oak	<i>Quercus wislizenii</i>	23 @ 3'	14, 11	26	Remove for Quarry Park	1 Extreme Structure or Health Problems
401	Blue Oak	<i>Quercus douglasii</i>	20		22	Preserve - Quarry Park	4 Good - No Apparent Problems
402	Interior Live Oak	<i>Quercus wislizenii</i>	7"		17	Preserve - Quarry Park	3 Fair - Minor Problems
403	Interior Live Oak	<i>Quercus wislizenii</i>	22	7, 8 @ 2'	30	Preserve - Quarry Park	2 Major Structure or Health Problems
404	Interior Live Oak	<i>Quercus wislizenii</i>	6		10	Preserve - Quarry Park	2 Major Structure or Health Problems
405	Interior Live Oak	<i>Quercus wislizenii</i>	7	5, 4	15	Preserve - Quarry Park	2 Major Structure or Health Problems
406	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 4'	6	15	Preserve - Quarry Park	2 Major Structure or Health Problems
407	Interior Live Oak	<i>Quercus wislizenii</i>	10 @ 3'	9	18	Preserve - Quarry Park	3 Fair - Minor Problems
408	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'	8, 6, 4	20	Preserve - Quarry Park	3 Fair - Minor Problems
409	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 2'	5	17	Preserve - Quarry Park	3 Fair - Minor Problems
410	Interior Live Oak	<i>Quercus wislizenii</i>	7	7, 6, 3, 6 @3'	± 20	Preserve - Quarry Park	3 Fair - Minor Problems
411	Interior Live Oak	<i>Quercus wislizenii</i>	12		± 20	Outside Project Impact Area	1 Extreme Structure or Health Problems
412	Interior Live Oak	<i>Quercus wislizenii</i>	7 @ 3'	4, 4	± 25	Outside Project Impact Area	2 Major Structure or Health Problems
413	Interior Live Oak	<i>Quercus wislizenii</i>	6 @ 2'	6, 6, 5 - all at	± 15	Outside Project Impact Area	2 Major Structure or Health Problems

Tag	Species Common Name	Species Botanical Name	TDBH	Additional Stems DBH	Canopy Radius	Development Status	Arborist Rating
				2'			
414	Interior Live Oak	<i>Quercus wislizenii</i>	9 @ 3'		± 15	Outside Project Impact Area	3 Fair - Minor Problems
415	Interior Live Oak	<i>Quercus wislizenii</i>	12 @ 2'		± 10	Outside Project Impact Area	2 Major Structure or Health Problems
416	Interior Live Oak	<i>Quercus wislizenii</i>	9	9, 7	± 20	Outside Project Impact Area	1 Extreme Structure or Health Problems
417	Interior Live Oak	<i>Quercus wislizenii</i>	15	12 @ 4'	± 20	Outside Project Impact Area	3 Fair - Minor Problems
418	Interior Live Oak	<i>Quercus wislizenii</i>	13 @ 1'	12 @ 3', 10 @ 3', 8 @ 1'	± 25	Outside Project Impact Area	2 Major Structure or Health Problems
419	Valley Oak	<i>Quercus lobata</i>	23	20	± 30	Outside Project Impact Area	4 Good - No Apparent Problems
420	Valley Oak	<i>Quercus lobata</i>	17		± 25	Preserve - Quarry Park	2 Major Structure or Health Problems
421	Blue Oak	<i>Quercus douglasii</i>	9		± 10	Outside Project Impact Area	2 Major Structure or Health Problems
422	Blue Oak	<i>Quercus douglasii</i>	8	6	± 15	Outside Project Impact Area	2 Major Structure or Health Problems
423	Interior Live Oak	<i>Quercus wislizenii</i>	6	6	± 15	Outside Project Impact Area	1 Extreme Structure or Health Problems

## Supporting Information:

### Glossary:

**Bow:** A structural condition in the main trunk or structural limbs of the tree where there is a U shape and the canopy turns back toward the ground. Often a result of suppression.

**Broadleaf Mistletoe** infested tree. Broadleaf mistletoe, *Phoradendron villosum*, is an evergreen parasitic that grows on many hardwood trees and is spread most commonly by birds excreting the living seeds onto woody branches where they germinate. It is important to stop the spread by correctly removing the mistletoe plant by either pruning off the branch it lives on (if small enough) or by removing its light source and killing the parasite. Pruning: remove the branch at least 12" below the point of attachment to the next lateral using an approved thinning-type cut. Light exclusion: remove the mistletoe to flush with limb or trunk where it is attached and wrap the limb/trunk with 2-3 layers 6 mil polyethylene plastic 8" above and below the point of attachment. Tape it with a few wraps of electrical tape to keep all light out to kill the mistletoe, remove in 2-3 years.

**Canker:** A localized diseased area on stems, roots, or branches. Often shrunken, discolored, or causing splits or bark to slough.

**Co-Dominant Leader:** Stems or trunks of the tree that are equal in size and of the same relative importance. They may or may not have included bark.

**Critical Root Zone:** A circular area around a tree where damage to the roots will critically impact the health of the tree. It is often defined with a radius equal to a tree's largest dripline radius or dripline radius plus 1' (defined by the local jurisdiction's code). It can be adjusted by a qualified arborist to match the current condition of the tree. For example a tree in poor health will require a larger CRZ than a tree of the same size in good condition to not be critically impacted.

**Included Bark:** A sharp "V" crotch, usually less than a 45° angle of attachment, between 2 branches where the bark is kept is continually turned inward, rather than being pushed out. It is a considered a structural fault and increases the likelihood of structural failure. The potential for hazard can be minimized with properly installed and maintained cabling, bolting or bracing, or regular reduction pruning.

**Epicormic Growth:** Shoots that arise from latent buds along the trees trunk or mature branches. This growth is usually a sign that the tree has undergone a stressful period.

**High Voltage Lines:** High voltage lines are above or in close proximity to the tree. Generally noted due to the associated clearance pruning performed by the utility company and resulting wounds and/or poor structure.

**Live Crown Ratio:** Ratio of the height of the crown containing live foliage to the overall height of the tree.

**Narrow Angle Attachment:** A sharp "V" crotch, usually less than a 45° angle of attachment. Included bark is explained above and is common in branches with narrow attachments. In addition, these branches may not be attached to the trunk as well as others with wider angles of attachment, and can fail more frequently depending on the ratio of the size of the branch compared to the size of the parent branch.

**Protected Root Zone:** A circular area around a protected tree with a radius equal to a tree's largest dripline radius plus 1'.

**Poor Structure:** These trees have grown with structural imperfections that cannot be corrected and therefore render them hazardous and more likely to fail in the future.

**Remove Dead Wood:** All dead wood to be removed over 3" in diameter and if over 2" in diameter when above 25', as this is a potential hazard for people under these limbs and a future health problem for the tree.

**Remove Hanger:** There is a broken or cut branch that is hanging in the tree and needs to be removed.

**Taper:** Change in diameter over the length of the trunk. These trees have grown tall but may not have the diameter strength to hold the weight of a large canopy and they are therefore more likely to fail in the future.

**To Be Removed:** Tree to be removed due to health and/or structural reasons. Removal should be done carefully as to not harm the surrounding trees, branches, and/or trunks above or roots below ground. Do **NOT** rip out or push over the tree stumps if they are near other trees that are to be preserved. Cut them off close to ground level and leave the stumps and roots to decay, unless they are located within a proposed foundation or area to be paved/concrete surfaced.

~: **Tilde:** This mark is used in the field in any empty box to indicate that there is no information to enter in that space.

**Unbalanced Canopy:** Either the trunk is leaning and/or the canopy is phototropic and overly heavy on one side.

**Compass Points:** These are the standard 16 points of the compass as aligned with Geographic North or True North. In our area, True North (TN) is adjusted for declination 14°49' to the west of Magnetic North (MN).





# Rocklin Fire Station 1 & Quarry Adventures Park

in  
City of Rocklin, California

- Tree Rating**
- 0 Dead
  - 1 Extreme Structure or Health Problems
  - 2 Major Structure or Health Problems
  - 3 Fair - Minor Problems
  - 4 Good - No Apparent Problems
  - 5 Excellent



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Please refer to the Arborist Report for additional information.  
Tree locations are an approximate.

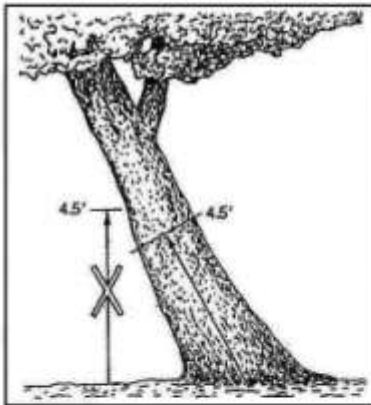


## Tree Size Expressed by Trunk Diameter

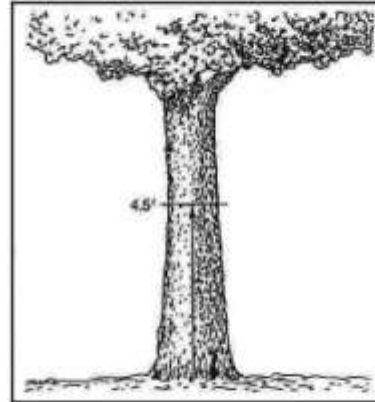
### Tree SIZE Expressed by Trunk Diameter

"The height at which the trunk diameter of a tree is measured depends upon its size. The American Standard for Nursery Stock (ANSI, 1990) state that measurements shall be taken 6 inches (15 cm) above the ground for trunk diameters up to and including 4 inches (10 cm). Larger trees (assumed, but not stated, to be of transplantable size) are to be measured at 12 inches (30 cm). Trees normally considered too large to transplant are to be measured 4.5 feet [4'-6" is also called diameter breast high or dbh] (1.4 m) above the ground. Trees, like conifers, which have branches below 4.5 feet should be measured at a height that most effectively represents the size of the tree." The diameter is calculated by first measuring the circumference divided by 3.14 ( $\pi$  called pi) or by using a "diameter tape" whereon the inches are multiplied by  $\pi$  and shown to produce the diameter directly.

This is the dbh standard for measurement as shown in figure 4-2.



Figures 4-3 (top) and 4-4 (bottom). In each case, the trunk circumference should be measured at right angles to the trunk 4.5 feet (1.4 m) along the center of the trunk axis so the height is the average of the shortest and longest sides of the trunk.



Figures 4-2. Trees with fairly straight, upright trunks with the lowest branch arising on the trunk higher than 6 feet (1.8 m) above the ground should be measured at 4.5 feet (1.4 m).

There are some exceptions to the dbh standard as shown in the figures 4-3, 4-4, 4-5 & 4-6.

Figure 4-6. In a multi-stem tree, measure the trunk circumference of each trunk at 4.5 feet (1.4 m) above the ground. The area of each trunk is determined and then added together to obtain a trunk area that is representative of the size of the tree and each of the stems contributes its proportionate share to the canopy.

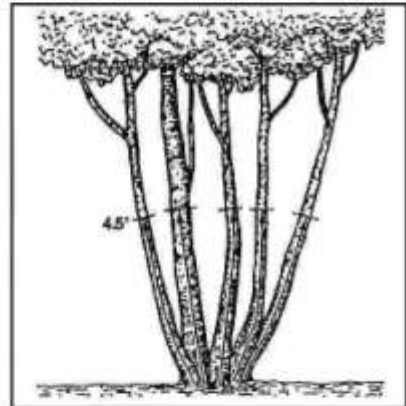
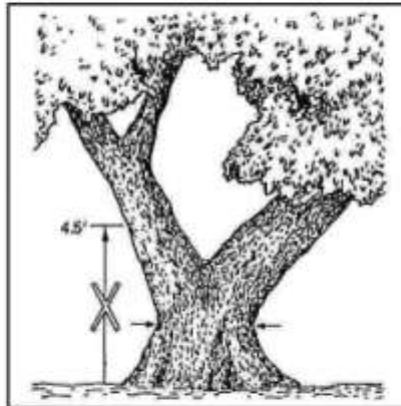
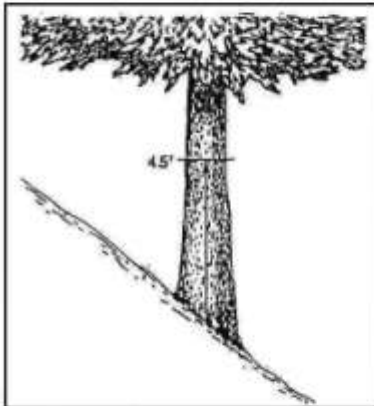


Figure 4-5. When low branches preclude measuring the trunk at 4.5 feet (1.4 m) measure the smallest circumference below the smallest branch. In this example, an alternative would be to determine the sum of the cross-sectional areas of the two stems measured about 12 inches (30 cm) above the crotch; then average the sum of the two branch areas and the smallest cross-sectional area below the branches. This may give a better estimate of tree size. Record the height of measurement(s) and the reasons the height or those heights were chosen.

### ABACUS

"Where Every Detail Counts!"



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#### Tree SIZE Expressed by Trunk Diameter

Scale: NTS

Drawing: TSE

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## Disclosure, Assumptions and Disclaimer

- 1) I, Nicole Harrison, *ISA Certified Arborist WE-6500AM*, with Abacus Consulting Arborists, did personally inspect the site and investigated the tree(s) as mentioned in this report and I performed all aspects of this report unless noted otherwise in the report.
- 2) We have neither financial interest in the tree work that may or may not be done, nor financial interest in the property where the tree(s) is (are) located unless noted within the report.
- 3) All opinions and recommendations expressed herein this report are ours solely. We have used our specialized education, knowledge, training and experience to examine the tree(s) and to make our opinions and recommendations to enhance the beauty, health and longevity, with an attempt to reduce the risk of who and/or what is near these trees. We cannot guarantee or warranty that a tree will not be healthy or safe under all circumstances, nor for a specific period of time or that problems may not arise in the future.
- 4) Our report with its opinions and recommendations are limited to the tree(s) inspected.
- 5) We attempt to be cognizant of the whole scope of a project, but many matters are beyond the scope of our professional consulting arborist services such as: exact property boundaries, property ownership, site lines, easements, codes, covenants & restrictions (CC&Rs), disputed between neighbors, and other issues.
- 6) We rely on the information disclosed to us and assume the information to be complete, true, and accurate.
- 7) The inspection is limited to visual examination of accessible items of the tree(s), from the ground unless otherwise noted, without excavation, probing, boring, or dissection, unless noted otherwise. Only information covered in this report was examined, and reflects the condition of those inspected items at that specific time.
- 8) Clients may choose to accept or disregard these opinions and recommendations of the arborist or to seek additional advice.
- 9) This report is copyrighted. Any modification or partial use shall nullify the whole report. Do not copy without written permission. This report is for the client and the client's assignees.
- 10) Sketches, diagrams, graphs, drawings, and photographs within this report are intended as visual aids and are not necessarily to scale, and should not be construed as engineering or architectural detail, reports or surveys.
- 11) We shall not attend or give a deposition and/or attend court by reason of this report unless fees are contracted for in advance, according to our standard fee schedule, adjusted yearly, for such services as described.

Signed: \_\_\_\_\_



Arborist Report by:

**ABACUS**

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