

**Tree Inventory, Assessment
and
Protection Report**

**3036-6062 Woodside Road
Woodside, CA 94062**

July 3, 2028

Prepared for:

Dave Tanner

Prepared By:

Richard Gessner

ASCA - Registered Consulting Arborist ® #496

ISA - Board Certified Master Arborist® WE-4341B



Monarch Consulting Arborists

Richard Gessner
P.O. Box 1010 – Felton, CA 95018
1 831 331 8982
www.monarcharborists.com

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Table of Contents

Summary	1
Introduction.....	1
Background	1
Assignment.....	1
Limits of the assignment	2
Purpose and use of the report.....	2
Observations.....	3
Plans.....	3
Tree Inventory	3
Discussion.....	5
Condition	5
Expected Impacts.....	6
Tree Protection	7
Conclusion	7
Recommendations	8
Pre-construction and Planning Phase.....	8
Construction Phase	9
Post-Construction Phase	9
Bibliography	9
Glossary of Terms.....	10
Appendix A: Tree Inventory Proposed Plan and Tree Protection	12
Appendix B: Tree Assessment Tables.....	14
Appendix C: Photographs.....	22
C1: Trees in parking lot footprint to be removed	22
C2: Trees near existing lot to be removed	23
C3: Dead pears in parking lot island	24
C4: Pears (and oak) to be retained in parking lot island.....	25
C5: Most of the trees at north end of proposed lot to be retained.....	26
Appendix D: Tree Protection Guidelines.....	27
Sample Plan Sheet Protection Detail	27



Sec. 153.437 Protection of significant trees during site development and construction.....	28
Prohibited Activities	28
Pre-Construction Meeting with the Project Arborist.....	29
Tree Protection Zones and Fence Specifications	29
Monitoring	29
Restrictions Within the Tree Protection Zone	29
Root Pruning.....	30
Boring or Tunneling.....	30
Timing	30
Tree Pruning and Removal Operations.....	30
Tree Protection Signs	30
Appendix E: Tree Protection Signs.....	31
E1: English	31
E2: Spanish.....	32
Qualifications, Assumptions, and Limiting Conditions	33
Certification of Performance	34



Summary

The plans are to renovate and expand the existing parking lot adding a new section on the north end. The inventory contains one hundred and thirty trees (130) comprised of twelve (12) different species. Fifty-eight (58) are considered “Significant” while the remaining seventy-two (72) are of a species and trunk diameter less than 9.5 or 7.6 inches and are not Significant. Coast live oak (*Quercus agrifolia*) is the most abundant species accounting for forty-eight percent (48%) of all trees. Ninety-two (92) trees are in good condition, twenty-five (25) fair, seven (7) poor, three (3) in very poor shape and three (3) are dead. Sixty-six (66) trees are expected to be highly impacted and caused to be removed. Of the sixty-six (66) highly impacted twenty-five (25) are Significant while the remaining forty-one (41) are not Significant size. There are a few pears in one parking lot island, trees #382 through #386, that should all be removed and replaced due to poor or dead condition. Place tree protection fence around trees #415 to #426, #376 to #381, that could be affected at a minimum of eight times their trunk diameter distance in radius (calculated tree protection zone) or at the drip line distance, whichever is greater (Appendix A).

Introduction

Background

Dave Tanner asked me to assess the site, trees, and proposed footprint plan, and to provide a report with my findings and recommendations.

Assignment

- Provide an arborist’s report including an assessment of the trees within the project area and on the adjacent sites where necessary. The assessment is to include the species, size (trunk diameter), condition (health, structure, and form), and suitability for preservation ratings.
- Provide tree protection specifications, guidelines, and expected impact ratings for trees affected by the project.



Limits of the assignment

- The information in this report is limited to the condition of the trees during my inspection on June 27, 2023. No tree risk assessments were performed¹.
- Tree heights and canopy diameters are estimates.
- The plans reviewed for this assignment were as follows in Table 1:

Table 1: Plans Reviewed Checklist

Plan	Date	Sheet	Reviewed	Source
Existing Site Topographic Map or A.L.T.A with tree locations				
Proposed Site Plan	07/15/2023	A2	Yes	Dave Tanner
Demolition Plan				
Construction Staging				
Grading and Drainage				
Utility Plan and Hook-up locations				
Exterior Elevations				
Landscape Plan				
Irrigation Plan				
T-1 Tree Protection Plan	07/15/2023	C5	Yes	Dave Tanner

Purpose and use of the report

The report is intended to identify all the trees with drip lines over the entire project development that will be impacted by the proposed project, after reviewing all provided construction plans, and to provides recommendations to help ensure the long term survivability for those to remain. The report is to be used by the property owners, owner's agents, and the Town of Woodside as a reference for existing tree and site conditions and to address expected impacts to trees.

¹ Tree Risk Assessment: The systematic process used to identify, analyze, and evaluate tree risk. Risk is assessed by categorizing or quantifying both the likelihood of an occurrence and the severity of the consequences. Tree risk assessment is a process to help determine the likelihood of tree failure and striking a target, and what the consequences would be, not "expected impacts" from construction.



Observations

Plans

The plans are to renovate and expand the existing parking lot adding a new section on the north end.

Tree Inventory

The trees inventoried for this report are those that meet the Town of Woodside criteria for a “Significant Tree” as defined by ordinance 153.005.

“SIGNIFICANT TREE. Any living tree that has a trunk circumference, measured 48 inches above mean natural grade, greater than the size in inches in the tables below. (For Madrone, Blue Oaks, and Buckeye trees only, if multiple trunks have developed by 48 inches above grade, the measure of circumference shall be the sum of the circumferences of all of the trunks. For California Bay Laurel trees, the measurement pertains only to the largest of multiple trunks.)”

All other trees with a trunk circumference 36 inches or greater (11.5 inches in diameter)

Slower growing natives 24 in. 7.6 in.

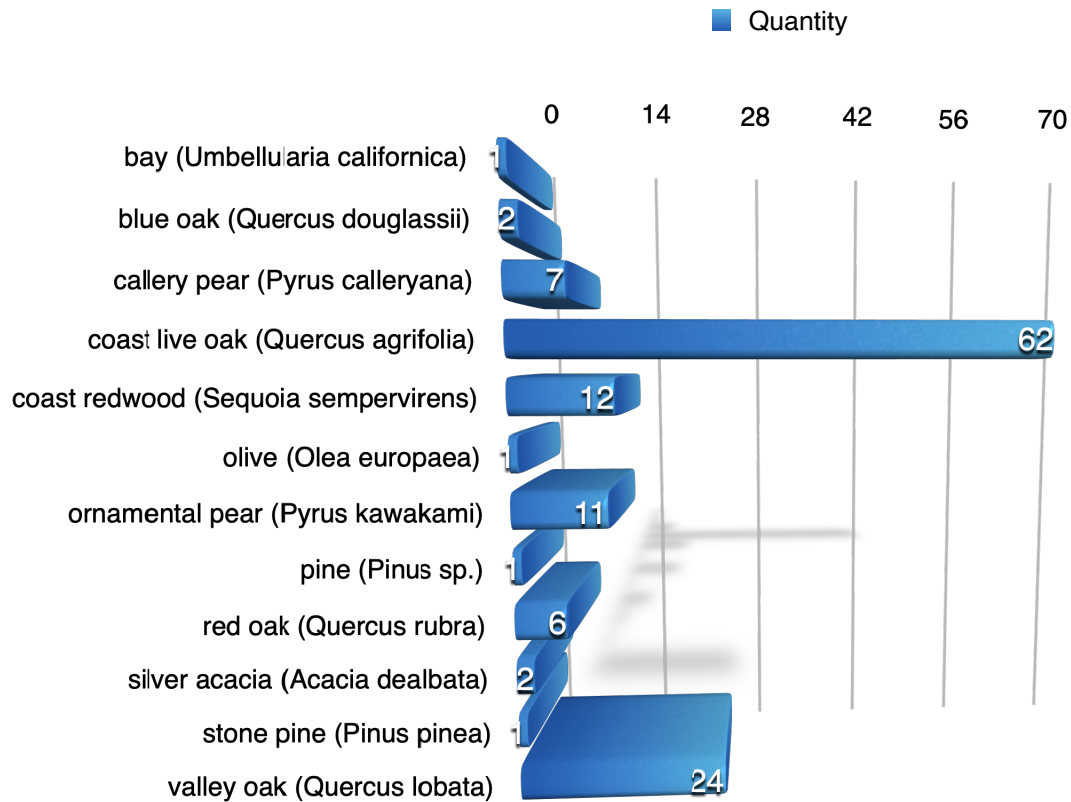
Alder (*Alnus rhombifolia*)
Big Leaf Maple (*Acer macrophyllum*)
Blue Oak (*Quercus douglasii*)
Buckeye (*Aesculus californica*) Fremont
Cottonwood (*Populus fremontii*)
Madrone (*Arbutus menziesii*)
Tan Bark Oak (*Lithocarpus densiflorus*)

Faster growing natives 30 in. 9.5 in.

Black Oak (*Quercus kelloggii*)
California Bay Laurel (*Umbellularia californica*)
Coast Live Oak (*Quercus agrifolia*)
Coast Redwood (*Sequoia sempervirens*)
Douglas Fir (*Pseudotsuga menziesii*)
Valley Oak (*Quercus lobata*)
Western Sycamore (*Platanus racemosa*)



The inventory contains one hundred and thirty trees comprised of twelve different species (Chart 1). Fifty-eight are considered “Significant” while the remaining seventy-two are of a species and trunk diameter less than 9.5 or 7.6 inches and are not Significant based on the ordinance criteria. Coast live oak is the most abundant species accounting for forty-eight percent of all trees.

Chart 1: Species Distribution

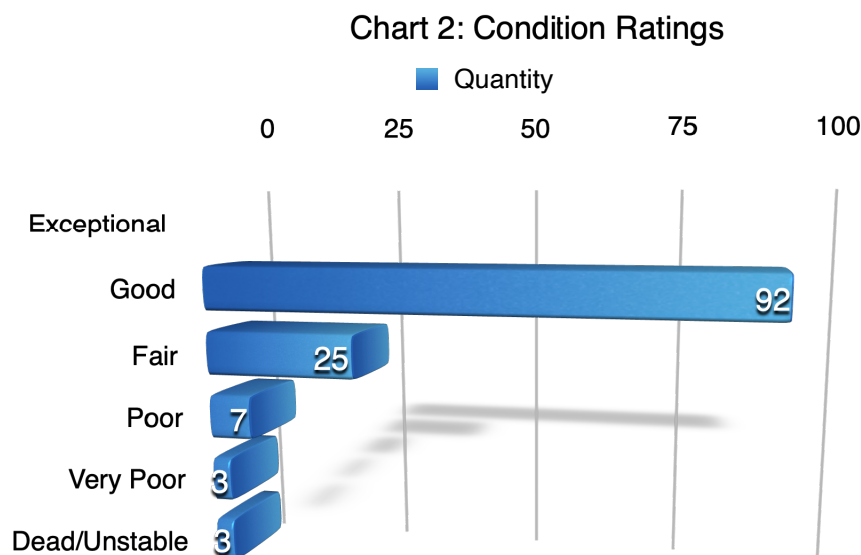
Discussion

Condition

A tree's condition is a determination of its overall health, structure, and form (ISA 2018). The assessment considered all three characteristics for a combined condition rating.

- 100% - Exceptional = Good health and structure with significant size, location or quality.
- 61-80% - Good = Normal vigor, well-developed structure, function and aesthetics not compromised with good longevity for the site.
- 41-60 % - Fair = Reduced vigor, damage, dieback, or pest problems, at least one significant structural problem or multiple moderate defects requiring treatment. Major asymmetry or deviation from the species normal habit, function and aesthetics compromised.
- 21-40% - Poor = Unhealthy and declining appearance with poor vigor, abnormal foliar color, size or density with potential irreversible decline. One serious structural defect or multiple significant defects that cannot be corrected and failure may occur at any time. Significant asymmetry and compromised aesthetics and intended use.
- 6-20% - Very Poor = Poor vigor and dying with little foliage in irreversible decline. Severe defects with the likelihood of failure being probable or imminent. Aesthetically poor with little or no function in the landscape.
- 0-5% - Dead/Unstable = Dead or imminently ready to fail.

Ninety-two trees are in good condition, twenty-five fair, seven poor, three in very poor shape and three are dead (Chart 2).

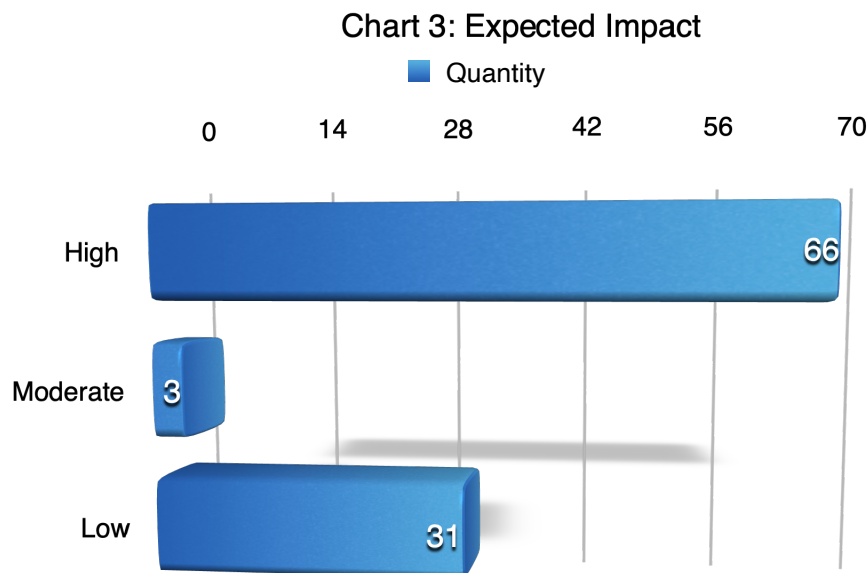


Expected Impacts

Impact level defines how a tree may be affected by construction activity and proximity to the tree, and is described as low, moderate, or high. The following scale defines the impact rating:

- Low = The construction activity will have little influence on the tree.
- Moderate = The construction may cause future health or structural problems, and steps must be taken to protect the tree to reduce future problems.
- High = Tree structure and health will be compromised and removal is recommended, or other actions must be taken for the tree to remain. The tree is located in the building envelope.

Sixty-six trees are expected to be highly impacted and caused to be removed (Chart 3). Of the sixty-six highly impacted twenty-five are Significant trees while the remaining forty-one are not Significant size trees. Three trees are on the edge of construction and could be affected and the remaining sixty-two are within the existing parking lot or its perimeter and are not expected to be affected. There are a few pears in one parking lot island, trees #382 through #386, that should all be removed and replaced due to poor or dead condition.



Tree Protection

Tree protection focuses on avoiding damage to the roots, trunk, or scaffold branches from heavy equipment (Appendix D). The tree protection zone (TPZ) is the defined area in which certain activities are prohibited to minimize potential injury to the tree and should encompass the critical root zone. There are two tree protection zones determined which include the “calculated” and “specified” tree protection zones. The “calculated” tree protection zone is determined by a multiplication factor based on species tolerance, tree age/vigor/health, and trunk diameter (Table 3). The “specified” tree protection zone is adjusted in size and shape to accommodate the existing infrastructure, planned construction, and specific site constraints. This “specified” zone includes tree canopy conformation, visible root orientation, size, condition, maturity, and species tolerances (Gilpin, R, Hauer, R, Matheny, N, and Smiley, E.T. 2023).

The Town of Woodside requires the tree protection to be placed at the ‘drip line’ distance when possible (§153.437). Preventing mechanical damage to the trunk from equipment or hand tools can be accomplished by wrapping the main stem with straw wattle.

The plans indicate “orange” tree protection fence which is not acceptable material for protection fence. All tree protection fence should be driven chain link and signed appropriately (Appendix D).

Conclusion

The plans are to renovate and expand the existing parking lot adding a new section on the north end. The inventory contains one hundred and thirty trees comprised of twelve different species. Fifty-eight are considered “Significant” while the remaining seventy-two are of a species and trunk diameter less than 9.5 or 7.6 inches and are not Significant based on the ordinance criteria. Ninety-two trees are in good condition, twenty-five fair, seven poor, three in very poor shape and three are dead. Sixty-six trees are expected to be highly impacted and caused to be removed. Of the sixty-six highly impacted twenty-five are Significant trees while the remaining forty-one are not Significant size. Some trees are on the edge of construction and could be affected and sixty-two within the existing parking lot or its perimeter and are not expected to be affected. There are a few pears in one parking lot island, trees #382 through #386, that should all be removed and replaced due to poor or dead condition. Place tree protection fence around trees #415 to #426 and #376 to #381, that could be affected at a minimum of eight times their trunk diameter distance in radius (calculated tree protection zone) or at the drip line distance, whichever is greater (Appendix A).



Recommendations

Pre-construction and Planning Phase

1. Place tree numbers and protection schemes on all the plans. Clearly indicate which trees are to be removed with a bold “X” on the plan sheet. Provide any required mitigation regarding replacement trees².
2. Place tree protection fence around trees #415 to #426, #376 to #381 that could be affected at a minimum of eight times their trunk diameter distance in radius (calculated tree protection zone) or at the drip line distance, whichever is greater (Appendix A).
3. All tree maintenance and care shall be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard for Tree Care Operations: *Tree, Shrub and Other Woody Plant Management: Standard Practices* parts 1 through 10 and adhere to ANSI Z133.1 safety standards and local regulations. All maintenance is to be performed according to ISA Best Management Practices.
4. Refer to Appendix D for general tree protection guidelines including recommendations for arborist assistance while working under trees, trenching, or excavation within a trees drip line or designated TPZ.
5. Provide a copy of this report to all contractors and project managers, including the architect, civil engineer, and landscape designer or architect. It is the responsibility of the owner to ensure all parties are familiar with this document.
6. Arrange a pre-construction meeting with the project arborist or landscape architect to verify tree protection is in place, with the correct materials, and at the proper distances.

² Sec. 153.438 - Replacement of significant trees.

When tree replacement is required by the Planning Director, the replacement trees shall be a California native tree species and be planted as near as possible to the original location, unless practical reasons preclude this option. Replacement trees will be of at least a 36-inch box or other minimum size as specified by the Planning Director. Replacement trees shall be planted within one year of removal or, in the case of removal to accommodate construction, prior to final inspection.

(Ord. 2006-534, effective 1-11-07)



Construction Phase

1. If any activity is to occur within the tree protection zone authorization and monitoring by the project arborist is required.
2. Water/irrigate the trees to be retained at least twice a month during construction in the summer months with ten gallons of water per inch trunk diameter per tree if necessary.
3. Monitor the health and condition of the trees during construction and ensure tree protection remains in place.

Post-Construction Phase

1. Monitor the health and structure of all trees for any changes in condition.
2. Perform any other mitigation measures to help ensure long term survival.
3. Have a qualified arborist perform a Level 2: Basic Tree Risk Assessment as described in the ISA Best Management Practices Tree Risk Assessment 2017 prior to new site occupancy.

Bibliography

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Glossary of Terms

Calculated tree protection zone: A TPZ calculated using the trunk diameter and a multiplication factor based on species tolerance to construction and tree age. It is often plotted on a plan as a circle or other arbitrary shape and can be used as a guide for establishing the specified TPZ.

Critical root zone: a conceptual soil area containing the minimal amount of all the essential parts of the root zone needed to sustain tree health and structural integrity. There are no universally accepted methods to calculate the CRZ.

Defect: An imperfection, weakness, or lack of something necessary. In trees defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.

Diameter at breast height (DBH): Measures at 1.4 meters (4.5 feet) above ground in the United States, Australia (arboriculture), New Zealand, and when using the Guide for Plant Appraisal, 9th edition; at 1.3 meters (4.3 feet) above ground in Australia (forestry), Canada, the European Union, and in UK forestry; and at 1.5 meters (5 feet) above ground in UK arboriculture.

Drip Line: Imaginary line defined by the branch spread or a single plant or group of plants.

Form: describes a plant's habit, shape or silhouette defined by its genetics, environment, or management.

Health: Assessment is based on the overall appearance of the tree, its leaf and twig growth, and the presence and severity of insects or disease.

Mechanical damage: Physical damage caused by outside forces such as cutting, chopping or any mechanized device that may strike the tree trunk, roots or branches.

Scaffold branches: Permanent or structural branches that for the scaffold architecture or structure of a tree.

Specified tree protection zone (specified TPZ): a TPZ that is adjusted in size or shape to accommodate the existing infrastructure, planned construction, and aspects of the site, as well as the tree canopy conformation, visible root orientation, size, condition, maturity, and species response to construction.

Straw wattle: also known as straw worms, bio-logs, straw noodles, or straw tubes are man made cylinders of compressed, weed free straw (wheat or rice), 8 to 12 inches in diameter and 20 to 25 feet long. They are encased in jute, nylon, or other photo degradable materials, and have an average weight of 35 pounds.



Tree Protection Zone (TPZ): Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

Tree Risk Assessment: Process of evaluating what unexpected things could happen, how likely it is, and what the likely outcomes are. In tree management, the systematic process to determine the level of risk posed by a tree, tree part, or group of trees.

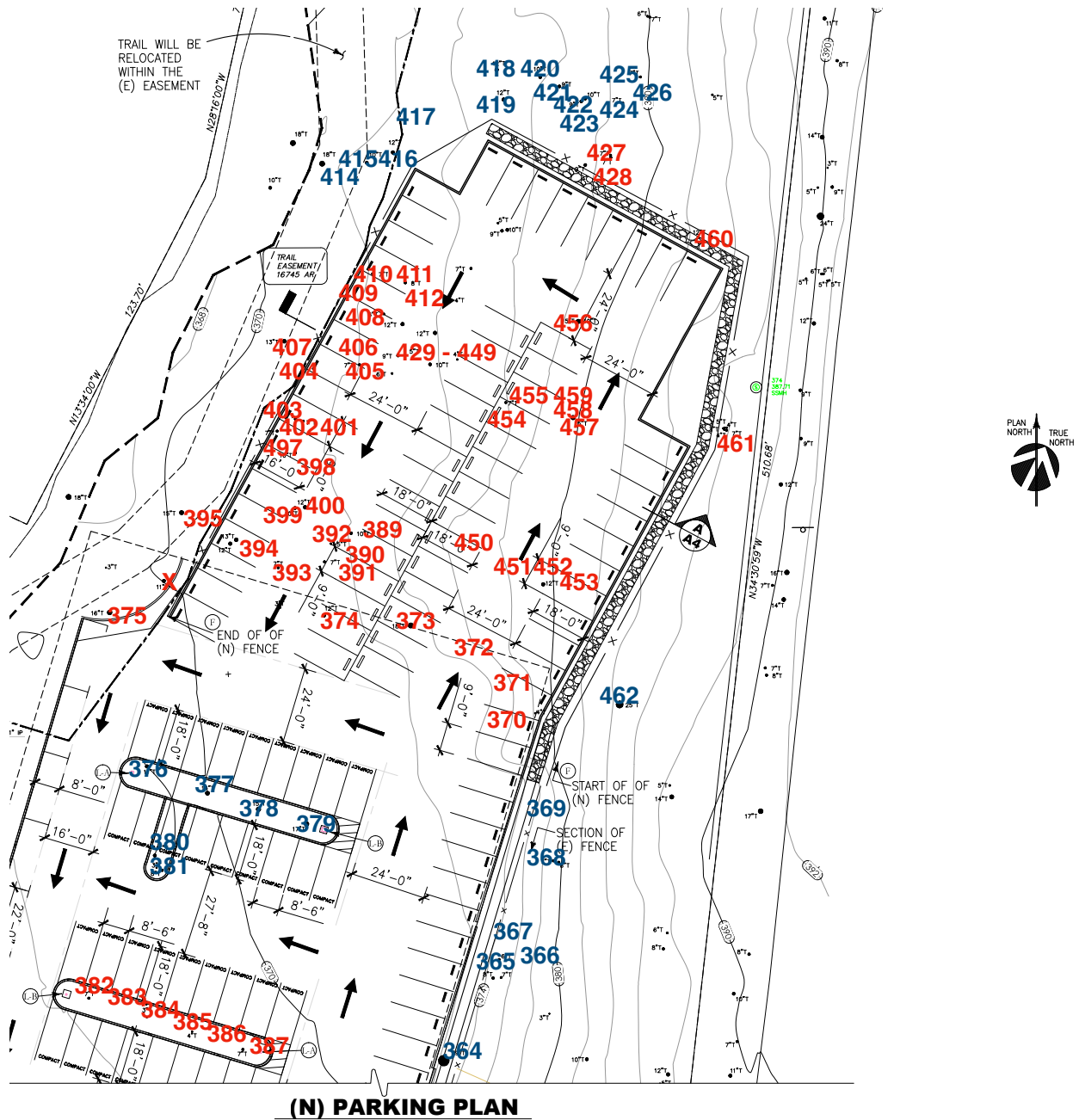
Trunk: Stem of a tree.

Volunteer: A tree, not planted by human hands, that begins to grow on residential or commercial property. Unlike trees that are brought in and installed on property, volunteer trees usually spring up on their own from seeds placed onto the ground by natural causes or accidental transport by people. Normally, volunteer trees are considered weeds and removed, but many desirable and attractive specimens have gone on to become permanent residents on many public and private grounds.



Appendix A: Tree Inventory Proposed Plan and Tree Protection

Trees in “Red” are expected to be removed to accommodate the new parking lot.





Appendix B: Tree Assessment Tables

Table 2: Tree Inventory and Assessment Summary

Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
valley oak (<i>Quercus lobata</i>)	333	9	15	Good	Low	Not-Significant
coast redwood (<i>Sequoia sempervirens</i>)	334	9	15	Good	Low	Not-Significant
coast redwood (<i>Sequoia sempervirens</i>)	335	17	15	Fair	Low	Significant
coast redwood (<i>Sequoia sempervirens</i>)	336	11	15	Fair	Low	Significant
valley oak (<i>Quercus lobata</i>)	337	9 10	15	Fair	Low	Significant
coast redwood (<i>Sequoia sempervirens</i>)	338	20	15	Fair	Low	Significant
coast redwood (<i>Sequoia sempervirens</i>)	339	14	15	Fair	Low	Significant
coast redwood (<i>Sequoia sempervirens</i>)	340	15	15	Fair	Low	Significant
coast redwood (<i>Sequoia sempervirens</i>)	341	16	15	Fair	Low	Significant
red oak (<i>Quercus rubra</i>)	342	6	10	Fair	Low	Not-Significant
callery pear (<i>Pyrus calleryana</i>)	343	9	20	Fair	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	344	9	0	Poor	Low	Not-Significant
red oak (<i>Quercus rubra</i>)	345	8	20	Good	Low	Not-Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
red oak (<i>Quercus rubra</i>)	346	6	20	Good	Low	Not-Significant
red oak (<i>Quercus rubra</i>)	347	7	20	Good	Low	Not-Significant
red oak (<i>Quercus rubra</i>)	348	8	20	Good	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	349	11	0	Fair	Low	Significant
ornamental pear (<i>Pyrus kawakami</i>)	350	8	15	Poor	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	351	7	15	Poor	Low	Not-Significant
callery pear (<i>Pyrus calleryana</i>)	352	15	20	Fair	Low	Significant
callery pear (<i>Pyrus calleryana</i>)	353	19	25	Poor	Low	Significant
ornamental pear (<i>Pyrus kawakami</i>)	354	8	15	Poor	High	Not-Significant
callery pear (<i>Pyrus calleryana</i>)	355	25	30	Fair	Low	Significant
valley oak (<i>Quercus lobata</i>)	356	12	0	Fair	Low	Significant
red oak (<i>Quercus rubra</i>)	357	18	30	Good	Low	Significant
ornamental pear (<i>Pyrus kawakami</i>)	358	8	20	Fair	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	359	11	15	Good	Low	Significant
coast live oak (<i>Quercus agrifolia</i>)	360	13	20	Good	Low	Significant
coast live oak (<i>Quercus agrifolia</i>)	361	9	20	Good	Low	Not-Significant
valley oak (<i>Quercus lobata</i>)	362	7	15	Fair	Low	Not-Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
coast live oak (<i>Quercus agrifolia</i>)	363	10	10	Good	Low	Significant
stone pine (<i>Pinus pinea</i>)	364	36	45	Fair	Low	Significant
valley oak (<i>Quercus lobata</i>)	365	9	10	Good	Low	Not-Significant
valley oak (<i>Quercus lobata</i>)	366	5	10	Good	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	367	8	15	Good	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	368	6, 6	15	Fair	Low	Significant
coast live oak (<i>Quercus agrifolia</i>)	369	5	10	Good	Low	Not-Significant
coast redwood (<i>Sequoia sempervirens</i>)	370	11	10	Fair	High	Significant
coast redwood (<i>Sequoia sempervirens</i>)	371	8	10	Dead	High	Not-Significant
blue oak (<i>Quercus douglassii</i>)	372	5.5	8	Good	High	Not-Significant
coast redwood (<i>Sequoia sempervirens</i>)	373	18	15	Fair	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	374	9, 10	20	Fair	Low	Significant
coast redwood (<i>Sequoia sempervirens</i>)	375	18	20	Good	Low	Significant
valley oak (<i>Quercus lobata</i>)	376	12	10	Good	Low	Significant
callery pear (<i>Pyrus calleryana</i>)	377	14	10	Good	Low	Significant
callery pear (<i>Pyrus calleryana</i>)	378	14	10	Good	Low	Significant
callery pear (<i>Pyrus calleryana</i>)	379	17	10	Good	Low	Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
valley oak (<i>Quercus lobata</i>)	380	11	10	Good	Low	Significant
valley oak (<i>Quercus lobata</i>)	381	7	10	Good	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	382	7	10	Good	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	383	1	3	Very poor	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	384	2	3	Dead	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	385	3	3	Very poor	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	386	1	3	Very poor	Low	Not-Significant
ornamental pear (<i>Pyrus kawakami</i>)	387	8	15	Poor	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	388	10, 5	20	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	389	8	10	Fair	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	390	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	391	5, 3 4	10	Fair	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	392	4	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	393	7	10	Fair	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	394	13, 11	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	395	18	20	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	396	8	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	397	8	10	Good	High	Not-Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
valley oak (<i>Quercus lobata</i>)	398	11	10	Good	High	Significant
silver acacia (<i>Acacia dealbata</i>)	399	10	10	Good	High	Significant
silver acacia (<i>Acacia dealbata</i>)	400	12	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	401	5	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	402	8	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	403	7	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	404	8	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	405	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	406	6	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	407	17	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	408	8	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	409	8	10	Good	High	Not-Significant
bay (<i>Umbellularia californica</i>)	410	4	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	411	4	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	412	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	413	6, 6	10	Good	High	Significant
valley oak (<i>Quercus lobata</i>)	414	18	20	Dead	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	415	10	10	Good	Low	Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
coast live oak (<i>Quercus agrifolia</i>)	416	16	10	Good	Low	Significant
valley oak (<i>Quercus lobata</i>)	417	5	10	Good	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	418	10	10	Good	Moderate	Significant
coast live oak (<i>Quercus agrifolia</i>)	419	8, 8	10	Good	Moderate	Significant
valley oak (<i>Quercus lobata</i>)	420	4	10	Good	Low	Not-Significant
blue oak (<i>Quercus douglassii</i>)	421	10	10	Good	Low	Significant
coast live oak (<i>Quercus agrifolia</i>)	422	9	10	Good	Low	Not-Significant
valley oak (<i>Quercus lobata</i>)	423	10	10	Fair	Low	Significant
coast live oak (<i>Quercus agrifolia</i>)	424	9	10	Fair	Low	Not-Significant
valley oak (<i>Quercus lobata</i>)	425	7	10	Good	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	426	7	10	Good	Low	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	427	7, 8	10	Good	Moderate	Significant
valley oak (<i>Quercus lobata</i>)	428	11	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	429	4	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	430	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	431	5, 5	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	432	10	10	Good	High	Significant
valley oak (<i>Quercus lobata</i>)	433	10	10	Good	High	Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
coast live oak (<i>Quercus agrifolia</i>)	434	7, 5, 5	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	435	2, 2	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	436	2, 2	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	437	4	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	438	3, 3	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	439	6, 4, 6	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	440	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	441	6	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	442	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	443	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	444	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	445	11	10	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	446	6	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	447	6	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	448	7	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	449	9	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	450	7	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	451	10, 12	10	Good	High	Significant



Tree Species	I.D. #	Trunk Diameter (in.)	~ Drip line Diameter (ft.)	Condition	Expected Impact	Status
coast live oak (<i>Quercus agrifolia</i>)	452	10	10	Good	High	Significant
coast redwood (<i>Sequoia sempervirens</i>)	453	7	10	Poor	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	454	7	10	Good	High	Not-Significant
valley oak (<i>Quercus lobata</i>)	455	5	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	456	11, 14	20	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	457	14	20	Good	High	Significant
coast live oak (<i>Quercus agrifolia</i>)	458	6	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	459	6	10	Good	High	Not-Significant
coast live oak (<i>Quercus agrifolia</i>)	460	12	20	Good	High	Significant
olive (<i>Olea europaea</i>)	461	Multi stem	20	Good	High	Significant
pine (<i>Pinus sp.</i>)	462	25	40	Good	Low	Significant



Appendix C: Photographs

C1: Trees in parking lot footprint to be removed



C2: Trees near existing lot to be removed



C3: Dead pears in parking lot island



C4: Pears (and oak) to be retained in parking lot island

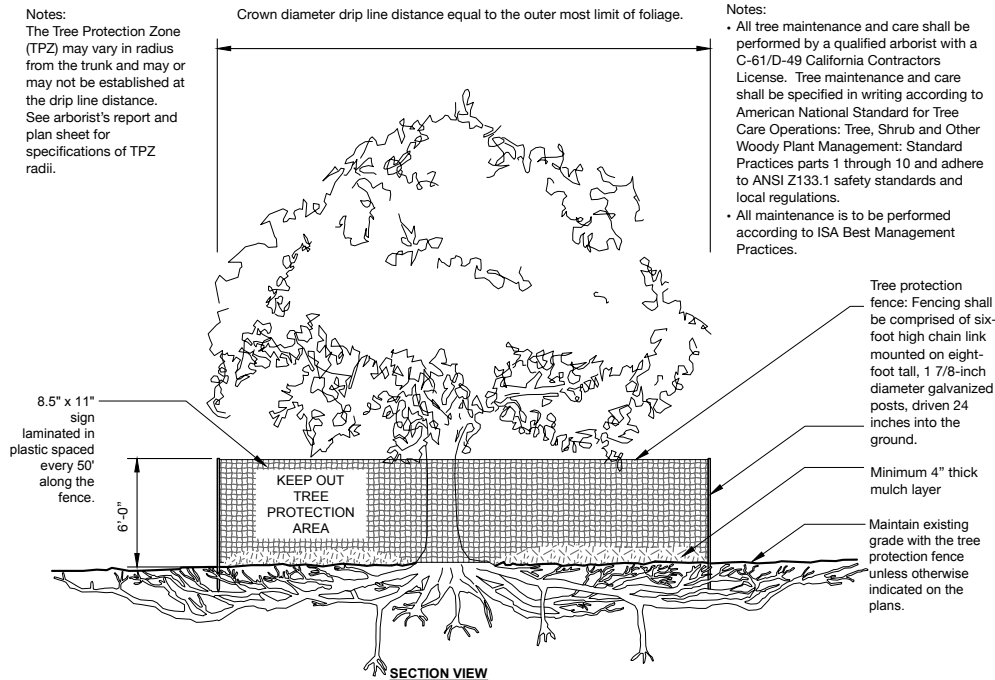


C5: Most of the trees at north end of proposed lot to be retained



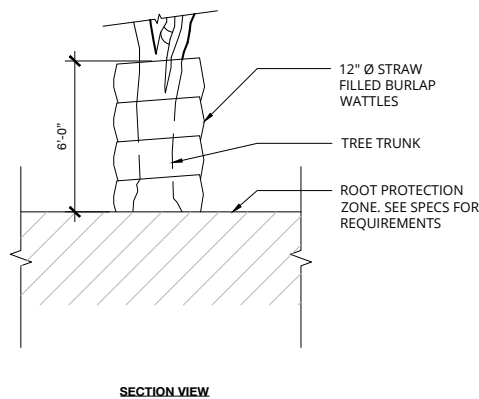
Appendix D: Tree Protection Guidelines

Sample Plan Sheet Protection Detail

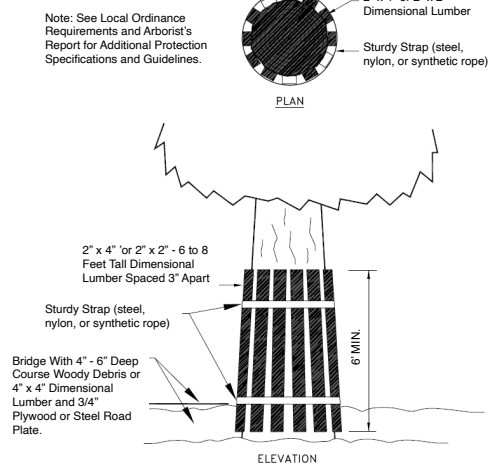


S-X TREE PROTECTION

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S-Y TRUNK PROTECTION WITH WATTLE



Trunk Protection Vertical Timber Detail



Sec. 153.437 Protection of significant trees during site development and construction.

- (A) The following provisions shall be adhered to during site development and construction.
- (1) Precautions during site development and construction, including at least the following:
 - (a) A *fence* shall be placed around the *drip line* of the *significant trees* insofar as is practical prior to any work, and no construction activities shall be carried out within the *drip line* except as allowed by the permit;
 - (b) Permits for construction within a *drip line* of any *significant trees* shall include: provisions for hand trenching within the *drip line*; construction of approved tree wells to protect against fill; prohibition of grading, cuts, and fills within four feet of a tree base; review of any cutting or trimming, or those provisions recommended by a certified arborist; and
 - (c) Appropriate signage must be posted on the *fence* protecting the *significant trees* during construction. The *sign* shall clearly state the purpose of the *fence* and that machinery and materials are not to be stored within the fenced areas, and work is to occur in the fenced areas only under the supervision of a certified arborist.
 - (2) Measures to effect erosion control, soil and water retention and limitation of adverse environmental effects.
- (B) The above protective measures are minimum requirements, and the *Planning Director* may require additional protection measures if the conditions of the site, development, or construction so dictate to protect *significant trees*.

(Ord. 2006-534, effective 1-11-07; Am. Ord. 2017-589, effective 8-24-17)

Prohibited Activities

The following are prohibited activities within the TPZ:

- Grade changes (e.g. soil cuts, fills);
- Trenches;
- Root cuts;
- Pedestrian and equipment traffic that could compact the soil or physically damage roots;
- Parking vehicles or equipment;
- Burning of brush and woody debris;
- Storing soil, construction materials, petroleum products, water, or building refuse; and,
- Disposing of wash water, fuel or other potentially damaging liquids.



Pre-Construction Meeting with the Project Arborist

Tree protection locations should be marked before any fencing contractor arrives.

Prior to beginning work, all contractors involved with the project should attend a pre construction meeting with the project arborist to review the tree protection guidelines. Access routes, storage areas, and work procedures will be discussed.

Tree Protection Zones and Fence Specifications

Tree protection fence should be established prior to the arrival of construction equipment or materials on site. Fence should be comprised of six-foot high chain link fence mounted on eight-foot tall, 1 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced no more than 10 feet apart. Once established, the fence must remain undisturbed and be maintained throughout the construction process until final inspection.

The fence should be maintained throughout the site during the construction period and should be inspected periodically for damage and proper functions. Fence should be repaired, as necessary, to provide a physical barrier from construction activities.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Restrictions Within the Tree Protection Zone

No storage of construction materials, debris, or excess soil will be allowed within the Tree Protection Zone. Spoils from the trenching shall not be placed within the tree protection zone either temporarily or permanently. Construction personnel and equipment shall be routed outside the tree protection zones.



Root Pruning

Root pruning shall be supervised by the project arborist. When roots over two inches in diameter are encountered they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Boring or Tunneling

Boring machines should be set up outside the drip line or established Tree Protection Zone. Boring may also be performed by digging a trench on both sides of the tree until roots one inch in diameter are encountered and then hand dug or excavated with an Air Spade® or similar air or water excavation tool. Bore holes should be adjacent to the trunk and never go directly under the main stem to avoid oblique (heart) roots. Bore holes should be a minimum of three feet deep.

Timing

If the construction is to occur during the summer months supplemental watering and bark beetle treatments should be applied to help ensure survival during and after construction.

Tree Pruning and Removal Operations

All tree pruning or removals should be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree pruning should be specified in writing according to ANSI A-300A pruning standards and adhere to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited. Text on the signs should be in both English and Spanish (Appendix E).



Appendix E: Tree Protection Signs

E1: English

WARNING

Tree Protection Zone

**This Fence Shall not be moved without
approval. Only authorized personnel
may enter this area!**

Project Arborist



E2: Spanish

CUIDADO
Zona De Arbol Pretejido
Esta cerca no sera removida sin
aprobacion. Solo personal autorizado
entrara en esta area!

Project Arborist



Qualifications, Assumptions, and Limiting Conditions

Any legal description provided to the consultant is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the consultant cannot be responsible for the accuracy of information provided by others.

The consultant shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitration, or trials by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

This report and any appraisal value expressed herein represent the opinion of the consultant, and the consultant's fee is not contingent upon the reporting of a specified appraisal value, a stipulated result, or the occurrence of a subsequent event.

Sketches, drawings, and photographs in this report are intended for use as visual aids, are not necessarily to scale, and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is only for coordination and ease of reference. Inclusion of said information with any drawings or other documents does not constitute a representation as to the sufficiency or accuracy of said information.

Unless otherwise expressed: a) this report covers only examined items and their condition at the time of inspection; and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that structural problems or deficiencies of plants or property may not arise in the future.



Certification of Performance

I Richard Gessner, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am a Registered Consulting Arborist® with the American Society of Consulting Arborists, and that I acknowledge, accept and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Board Certified Master Arborist®. I have been involved with the practice of Arboriculture and the care and study of trees since 1998.

Richard J. Gessner



ASCA Registered Consulting Arborist® #496
ISA Board Certified Master Arborist® WE-4341B



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