Arborist Report

Prepared at the request of:

Meyer + Silberberg Land Architects 1443 Cornell Avenue Berkeley, CA 94702

Ohlone College Fremont Tree Survey Report

Amended 11-18-13

Prepared by:

SBCA TREE CONSULTING

Steve Batchelder, Consulting Arborist 1534 Rose Street, Crockett, CA 94525 WC ISA Certified Arborist #228 CUFC Certified Urban Forester #134 Calif. Contractor Lic. (C-27) 533675 Phone: (510) 787-3075

> Fax: (510) 787-3065 E-mail: steve@sbcatree.com Website: www.sbcatree.com

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Assignment

SBCA Tree Consulting was asked to survey approximately 500 existing trees on the campus and to identify the most significant concerns with recommendations for potential treatments.

Introduction

This report provides survey data on 453 trees and 74 palms. The report also provides commentary on trees located in eight different areas. The areas tree descriptions can be found in "Discussion of Groups" on Page 10. Soil analysis data for 15 soil sampling locations is discussed on Page 3 and can be found in *Appendix 3*.

Information has been presented to help develop an action plan for management of trees on the Ohlone College campus. The recommendations for soil mitigation are based upon the Wallace Laboratories analysis and observation of the physical properties of the sampling sites. Tree pruning recommendations are directed toward tree safety and longevity. Treatments are prioritized based on a cost-benefit analysis. This considers both the present and future value of trees in the context of the cost of ongoing maintenance. Trees that have the highest value receive the highest priority in maintenance.

This report provides observations and commentary on the trees in the areas surveyed either individually or as a group and does not attempt to address trees in other areas.

Discussion of the Most Serious Problems

Problems that could compromise trees of high value, such as the olive rows and large specimen trees in need of maintenance, are considered to be a higher priority than trees of lesser value. Pruning maintenance of young trees, such as the Coast Live Oak (Quercus agrifolia), is another high priority due to the potential future value and longevity of the trees. Tree value is generally based upon tree species, size, location, condition and cost of ongoing maintenance.

<u>Olive Tree Care</u> – The allees of olives (*Olea europaea*) are heritage trees and have a significant historical value. Every effort should be made to preserve their presence. Most of the olives are structurally problematic. Future pruning care of these trees is critical to their safety and longevity.

One-hundred (100) olive trees were surveyed along the central corridor, and 15 adjacent to them. Most of these trees have been very poorly pruned in the past. Wounds from a significant number of past stem breakouts were noted. Most of the breakouts were due to poor stem attachments which developed as a result of large heading cuts. A large number of "flush cuts" were also observed.

The retention of the olive trees for any length of time will require a pruning program to properly address the needs of the trees. We recommend a two year restorative pruning cycle until the trees' structural safety is improved. Pruning must be on a tree by tree basis, with all trees not necessarily requiring pruning during any one cycle. End Weight Reduction is currently recommended for 32 of the olive trees lining the central walkway.

Care of Young Oaks – The population of Coast Live Oak trees surveyed are mostly very young with 88 specimens having DBHs below 12 inches. These trees will benefit from structural pruning to establish a central leader, mitigate structural defects, and select the lowest permanent branch. Such pruning can be the most cost effective maintenance a tree will ever receive. The Coast Live Oak can have a safe and useful life expectancy of hundreds of years.

Discussion of Palms – A total of 74 palm trees were surveyed. Number tags were not attached to the palms. The locations of the palms are identified in Appendix 2, Map 7 by numbers used in the database, which can be found in Appendix 1, Sheet 2.

Three species of palm were identified: 58 Canary Island Date Palms (Phoenix canariensis), 14 Mexican Fan Palm (Washingtonia robusta) and 2 Date Palms (Phoenix dactylifera). Arborists were asked to identify palms that have the potential for transplant; this information can be found in the database.

Of particular focus are the rows of Phoenix Palms in the central area of campus. Most of these are poor specimens that are not suitable for transplant. This is due to: large wounds on trunks, most likely associated with previous pink rot (Nalanthamala vermoeseni) infections; poor pruning practices which cut into trunks and created wounds that will never close¹, and/or too large of size. Four *P. canariensis* (and one P. dactylifera located adjacent to Pine St.) have been compromised to the extent that they are considered hazardous. It is recommended that all hazardous trees be removed.

Many of the small palms surrounding the two ponds which have not received past pruning are suitable for transplant, but due to the small size, their value is low. Few are easily accessible.

Pecan Tree – The large pecan tree (Carya illinoinensis) is a valuable asset to the campus. Its value can best be protected by Class 1 pruning to remove end weight on heavy lateral stems, thereby reducing the potential for stem breakage. The root environment likewise must be protected and enhanced if possible. It is recommended all future construction activities remain outside the limit of the Tree Root Protection Zone (RPZ)². In this case, the pecan has a RPZ equal to a 50 foot radial distance from its base. If activities are required within the Root Protection Zone, work is restricted to hand tools only and is carried out under Arborist supervision.

It should be understood that tree roots often extend out from the base to more than three times the distance defined by the critical root zone. An arborist should monitor all grading and trenching activity that is within twice the distance of the RPZ. The larger the protection zone that is provided, the greater the likelihood of long-term tree survival.



¹ "Palms are unique in that they can become tall and/or long-lived woody plants without traditional secondary growth. They possess no mechanism for secondary growth from a single peripheral cambium, as in dicotyledonous and coniferous woody plants, that develop the vascular system and continually increase stem diameter and strength by producing phloem and bark on its outside and xylem or wood on its inside" (Hodel, Donald. The Biology and Management of Landscape Palms. Porterville, WCISA, Print.)

² Tree Root Protection Zone (RPZ) - The Tree Root Protection Zone designates an area surrounding a tree or grouping of trees that is to be fenced off from all access until designated by a certified arborist. The RPZ is commonly defined as one (1) foot radial distance for every one (1) inch in tree diameter (DBH). Example: A single stem tree measuring 30 inches in diameter, (measured at 54 inches or 4.5 feet above grade) would have a critical root zone with a radius of 30 feet. This is roughly equivalent to the area commonly referred to as the "drip zone."

<u>Safety of Old Pepper Trees</u> – There were a number of old Peruvian Pepper trees (*Schinus molle*) surveyed. Many of the trees are broken and structurally problematic. However, due to their locations with low target values, most are best left alone. Pruning could prevent additional stem breakage however.

<u>Pond Area Eucalyptus Trees</u> – Eucalyptus trees (*Eucalyptus globulus*) closest to the paved pedestrian area by the pond, particularly trees that have developed as multi-stemmed, should be considered for removal. Consideration should also be given to removal of the smaller eucalyptus. The larger single trunked trees farther from the walkways appear to be safe and can be retained for the present. A slow transition from the eucalyptus trees to species such as the cork oak or coast live oak is recommended.

<u>East Pond Area</u> – This area includes a collection of conifer species: Douglas Fir (*Pseudotsuga menziesii*), Grey Pine (*Pinus sabiniana*), Ponderosa Pine (*Pinus ponderosa*), Incense Cedar (*Calocedrus decurrens*), and Coast Redwood (*Sequoia sempervirens*). Other species include Arroyo Willows (*Salix lasiolepis*), palms and Golden Wattle Acacia (*Acacia longifolia*).

The most prevalent species is the Coast Live Oak. It is recommended that some oak tree selection occurs, and that the trees receive ongoing structural pruning care to assure sound scaffold structures. Many of the conifers were found to be in fair to poor condition, and it is expected they will soon cycle out. It is the oak that will likely take over the area. A native oak woodland would be a valuable asset to the campus: it supports habitat, is fire resistant, and is expected to thrive.

Discussion of Soil Conditions

<u>Soil Analysis</u> – Results of the Wallace Laboratory soil analysis showed generally good soil qualities. No serious limitations were identified other than the high copper found in sampling site #4. Prior to any action, additional soil sampling is recommended to confirm the test results in the high copper area. The lack of soil moisture can be attributed to slow water infiltration rate caused by compacted soil and low rainfall in the past year.

<u>Soil Physical Qualities</u> – Soil compaction reduces water infiltration, reduces gas exchange and presents a physical impediment to root development. Soil compaction is best mitigated in new planting areas through extensive over-excavation of planting sites with the incorporation of compost and gypsum into the soil. Existing trees can be provided some relief through the use of a water jet procedure. Water jetting is undertaken after gypsum and compost have been applied to the soil surface.

Trees planted on cut slopes having no topsoil are having a difficult time surviving due to lack of both water and nutrition. Tree health and more vigorous growth can be attained through mulching with compost and wood chips. Soil moisture retention can be further improved by allowing lower branches to spread low around the trees, thereby providing shading for the soil and abating weeds.

Tree Species Table

The table below provides a breakdown of numbers of each tree species, the structural safety, health and an estimate of how long the tree may provide amenities to the campus.

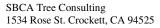
SPECIES	AMOUNT	POOR STRUCTURE	POOR HEALTH	<5	<20	>20
Acacia longifolia	2	2	0	0	0	2
Acer palmatum	2	2	0	0	2	0
Calocedrus decurrens	2	1	1	0	1	1
Carya illinoinensis	1	0	0	0	0	1
Cedrus atlantica	1	0	0	0	0	1
Cedrus deodara	1	0	0	0	0	1
Cercis occidentalis	11	3	5	10	1	0
Cinnamomum camphora	2	0	1	0	0	2
Cupressus sempervirens	2	0	0	0	0	2
Eucalyptus camaldulensis	2	0	0	0	0	2
Eucalyptus globulus	2	0	1	0	1	1
Juglans californica var. hindsii,	1	0	0	0	0	1
Juglans regia	1	0	0	0	0	1
Lagerstroemia indica x fauriei	28	8	7	6	8	14
Lagunaria patersonia	1	0	0	0	0	1
Laurus nobilis	3	1	1	1	1	1
Liquidambar styraciflua	1	0	0	0	0	1
Magnolia grandiflora	2	1	2	2	0	0
Magnolia soulangiana	1	1	1	0	1	0
Olea europaea	115	74	12	1	2	112
Pinus coulteri	2	1	1	0	0	2
Pinus halepensis	3	0	0	0	0	3
Pinus ponderosa	1	1	1	0	0	1

SPECIES	AMOUNT	POOR STRUCTURE	POOR HEALTH	<5	<20	>20
Pinus sabiniana	2	1	1	0	2	0
Pinus sylvestris	1	0	0	0	0	1
Pistacia chinensis	1	0	0	0	0	1
Platanus racemosa	1	0	0	0	0	1
Platanus x hispanica 'Yarwood'	14	0	0	0	1	13
Prunus amygdalus	2	1	1	1	1	0
Prunus cerasifera	2	1	0	0	2	0
Pseudotsuga menziesii	4	0	0	0	1	3
Pyrus calleryana	5	1	1	1	1	3
Pyrus kawakamii	68	7	15	4	19	45
Quercus agrifolia	123	24	7	0	2	121
Quercus suber	1	0	1	0	0	1
Salix babylonica	2	2	1	0	2	0
Salix lasiolepis	3	1	0	0	3	0
Schinus molle	23	4	2	2	3	18
Schinus terebinthifolius	1	0	1	0	1	0
Sequoia sempervirens	10	3	4	1	2	7
Ulmus procera	2	2	1	0	2	0
Umbellularia californica	1	0	0	0	0	1
Totals:	453	142	68	29	59	365

Discussion of Tree Species

The following comments are pertinent to the species identified in the tree survey:

<u>Acacia longifolia</u> – Two Golden Wattle exist on the northern end of the east pond. The trees have poor structures, with significant leans and poor pruning. However, the species has a small habit and the specimens pose no safety concerns. The only reason for removal would be in efforts to return the area to a native oak woodland.





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<u>Calocedrus decurrens</u> – Two Incense Cedars were tagged and surveyed. One grows adjacent to the east pond and is in poor condition. The tree has an included bark stem attachment and requires structural pruning mitigation. The other is situated in the corridor of olives and is one of the biggest trees on campus. The tree can be pruned to remove dead wood to monitor tree decline, as well as to mitigate the co-dominant top. As the tree is extremely valuable, consideration should be given to water-jetting the surrounding soil in efforts to introduce more oxygen to the rooting environment. Mulch would also be beneficial to reduce future soil compaction and retain moisture loss.

<u>Carya illinoinensis</u> – The pecan tree is a spectacular tree, worth 288 points on the Official Registry of California Big Trees³. This pecan tree is larger than the current official champion. It is recommended that proposed construction adjacent to the tree remain beyond the limits of the Tree Root Protection Zone (RPZ). For this tree, the RPZ is a radius of 50 feet. It should be understood that roots often develop out more than twice the distance or the drip line or RPZ. For this reason, and due to the apparent value of this tree, work activities carried on outside of the RPZ should be closely monitored by an arborist.

<u>Cedrus atlantica</u> – One large Atlantic Cedar can be found on campus at the eastern end of the olive corridor. The tree has received very poor pruning, including flush cuts and topping. End Weight Reduction is required to reduce the potential for stem failures due to overweight. Because of the brashness of the wood of this tree, pruning maintenance is needed to prevent stem failures.

<u>Cedrus deodara</u> – One Deodar Cedar grows at the northern end of the east pond. The tree is in fair to good condition. Pruning is recommended to remove dead wood.

<u>Cercis occidentalis</u> – Western Red Buds were surveyed at the mid-northern and mid-southern circles. The trees are senescent and some have been poorly pruned. Most likely these specimens will cycle out in the next 5 years.

<u>Cinnamomum camphora</u> – Two camphors which grow in the olive corridor were surveyed. The trees are drought stressed and would benefit from soil mitigation and supplemental water during summer months. This tree is native to Asia in a more mesic (summer rain) environment.

<u>Cupressus sempervirens</u> – Two Italian Cypress were tagged and surveyed and are most likely not the columnar cultivar that is commonly used today. One is located in the olive corridor; the other is along Pine St. A root crown investigation is recommended for this tree as it is suspected that the base maybe buried.

<u>Eucalyptus (E. camaldulensis and E. globulus)</u> – Four <u>Eucalyptus</u> were surveyed on campus. Fungal conks were noted on the <u>E. camaldulensis</u> growing on the west side of the pool as well as the <u>E. globulus</u> growing by the police station. Safety inspection is recommended to better understand the extent to which the decay has advanced. It may be best to remove the <u>E. camaldulensis</u> by the pool in favor of

³ "The California Register of Big Trees is a program of the California Department of Forestry and Fire Protection (CDF) and the Northern and Southern California Societies of American Foresters (NorCal SAF). It maintains records for the largest specimen of each native and naturalized tree species growing in California. The register seeks to recognize and sustain these living landmarks. Questions regarding these listings can be directed to Glenn Flamik at Glenn.Flamik@fire.ca.gov."



the adjacent young oak. The *E. globulus* by the police station is in very poor health. Poor crown appearance generally indicates problems in the root system.

<u>Juglans (J. × paradox, J. regia)</u> – Two walnut trees were surveyed. The Paradox Walnut (J. paradox), located along Mission Blvd., is a rare specimen as it is used mainly for its rootstock for the English Walnut (J. regia). The tree is a good specimen and worthy of appropriate pruning. The English Walnut is located along Pine St. and can be cleaned up, including removal of ivy and dead wood.

<u>Lagerstroemia indica x fauriei</u> – The Crepe Myrtles are mostly located along the circle drives on campus. The 28 surveyed are growing along the south-western circle and have many problems, including poor pruning, suckering, poor health and structures. If this area is to be modified, consideration should be given to the removal and replacement of all trees.

<u>Lagunaria patersonia</u>— One Cow Itch tree was found on campus and was surveyed. Other than poor pruning, it is doing well in the remote parking lot area it grows in.

<u>Laurus nobilis</u> – Three Grecian Bay Laurel grow amongst the historical peppers on the south side of Pine St. The trees all have basal wounds and are in fair to poor condition.

<u>Liquidambar styraciflua</u> – One American Sweet Gum was surveyed and grows in the central olive corridor. The tree was noted to have an included bark stem attachment. Pruning should be administered to address the structural defect. This species in known for its brash wood and greater-than-normal potential for branch breakouts.

<u>Magnolia</u> (M. grandiflora and M. soulangeana) – The magnolias growing on campus are doing poorly, likely due to lack of a suitable soil for root development. This species is not recommended for future planting without extensive soil preparation.

<u>Olea europaea</u> – 115 olives were tagged and surveyed; 100 are located along the central campus pathway. The olives along Mission Blvd were not included in the survey.

<u>Pinus coulteri</u> – Two Coulter Pines grow in the north-east section of campus. One is in good condition; one is in poor condition due to and included bark stem attachment and competition with ivy and another tree. The ivy and other tree have both been removed, and the tree is expected to show signs of improving health.

<u>Pinus halepensis</u> – The campus has many Aleppo Pines, but only three were tagged and surveyed. These trees are located on a slope in the middle of campus. All are in good condition with no apparent structural problems.

<u>Pinus ponderosa</u> – The Ponderosa Pine grows adjacent to the east pond and is in poor condition with a co-dominant attachment with included bark, and sparse foliage. It is a rare tree to see in the Bay Area, and is structural pruning is recommended.

Pinus sabiniana – Two Ghost Pines are located in the area adjacent to the east pond. This is a native California tree which does command some respect. Likely the trees have received too much water than they would in their preferred habitat, which has contributed to early senescence. The trees display many cones, a sign that they may be on their way out. A walking path exists below the trees, and there is a danger of cones falling, as they are quite large. Although it is not efficient to use resources to prune the trees, except possibly for the removal of dead wood, the trees will most likely begin to experience branch failures during high wind storms.

Pinus sylvestris - One Scots Pine exists on the south side of Pine Road and was tagged and surveyed. A root crown investigation is recommended to excavate the buried base.

Pistacia chinensis – One Chinese Pistache was included in the tree survey. The tree is located in the central olive corridor and is in good condition, despite the poor past pruning it has received. This species is recommended for consideration in future plantings for its fall color and drought tolerance. The species performs poorly when planted in irrigated turf.

Platanus racemosa – Although only one native sycamore was tagged and surveyed, a few others were noted growing on campus. All trees are doing quite well and should be considered in future plantings in riparian areas.

Platanus x hispanica 'Yarwood' – The 14 Yarwood London Planes tagged are located adjacent to the Student Services Center. All were most likely planted in 2009 when the construction of the building was completed. All eight of the trees located in the semi-circle planter have settled below grade. The trees display off-color foliage which could be an indication they are receiving too much water. If the trees are to remain in the current location, they need to be elevated and will require Structural Pruning to determine the first permanent branch and branch spacing. The root zones of four trees located in grates could not be inspected. One tree is suspected to have a dysfunctional root zone due to its smaller size.

We were asked on the suitability of the trees for transplanting. All trees, save one with the dysfunctional root system, are suitable for transplanting. Late fall is the best time to transplant.

Prunus amygdalus – A few senescent almonds can be found on campus. Two were tagged and surveyed growing adjacent to the east pond and south of Pine St. The trees most likely came up from seed and can be removed, as they are almost dead. They pose no hazard concerns due to their small size.

Prunus cerasifera –Two Purple Plums were tagged and surveyed by the police station. The suckering of the root stocks is a high maintenance cost.

Pseudotsuga menziesii – Four Douglas Fir grow adjacent to the east pond. One is experiencing tip dieback and is in poor condition. The other two are doing fair to good. This tree is a California native and has a unique significance in their location on campus.

Pyrus calleryana – The four Callery Pears surveyed are most likely root stocks of the Evergreen Pear that have taken over. All grow amongst the Evergreen Pears that line both sides of Pine St. One tree is almost dead; the rest require street clearance pruning.



<u>Pyrus kawakamii</u> – The Evergreen Pear is the third most common species surveyed on campus, with 68 specimens tagged. Most surveyed pears can be found lining both sides of Pine St. Many have been poorly pruned. Many require clearance from street and/or sidewalk. The lack of moisture has prevented these trees from coming close to attaining their potential. A wide boulevard such as Pine St. seems to demands larger stature tree species, such as the Cork Oak (Quercus suber), Coast Live Oak Shumard Oak (Quercus shumardii). Planting site preparation is key to growing large, healthy mature trees.

<u>Quercus agrifolia</u> – The Coast Live Oak is the most numerous species surveyed and is easily the most valuable species. One-hundred twenty-three specimens were tagged and are located throughout campus.

The twenty oaks growing in the area adjacent to the tennis courts are quite valuable, and many require Structural and End Weight Reduction Pruning to manage included bark stem attachments and heavy laterals. Oak tree #191 has an included bark stem attachment that has begun to split open. Early Structural Pruning can address problems early on, such as included bark, so trees will not experience terminal failures later. The removal of dead wood from the trees would improve aesthetics.

<u>Quercus suber</u> – One Cork Oak, located in the area south of Pine St, was tagged and surveyed. The tree displays bleeding lesions from the trunk, a sign of root disease. The tree would benefit from soil aeration and mulch application, as soil compaction and poor gas exchange is the likely reason for the poor health. This species is recommended for future plantings on campus. It is the European analog to our Coast Live Oak and performs quite well with no supplemental irrigation after establishment.

<u>Salix babylonica</u> – This is a short lived species known to fall apart when they become large. The two Weeping Willows surveyed on campus are in poor structural condition, suffering from terminal breakouts and internal decay. They are likely best removed before construction commences, as they are not worthy of protection.

<u>Salix lasiolepis</u> – This native Arroyo Willow can be found growing from seed around campus. The three willows surveyed exist adjacent to the east pond. One has a significant lean over the water. This is a relatively short lived species that reproduces itself and cycles out.

<u>Schinus molle</u> – Twenty-three Peruvian Peppers exist on campus and have a historical significance as they are associated with California Missions. Most are located adjacent to Pine St and are in fair to good condition. Although many were noted with internal decay and structural problems, these specimens can be left alone as they are not associated with liability due to their remote locations. If there remains some concern, the trees can be roped off and allowed to "die with dignity".

<u>Schinus terebinthifolius</u> – Only one Brazilian Pepper tree was noted on campus. The base of the tree appears to have been buried for some time, and the tree is likely experiencing poor health as a result. Consideration can be given to using this species in future planting due to its drought tolerance and beauty.

<u>Sequoia sempervirens</u> – The Coast Redwood is represented 10 times on campus and all are located adjacent to the east pond. The species is not doing very well, as seven specimens were noted in poor condition. This is a species that is native to California's coastal range and has adapted to a cooler, foggy climate. Future planting of this species is not recommended.

<u>Ulmus procera</u> – The English Elm is a relatively rare species found today due to the spread of Dutch Elm Disease and associated tree death. Two very large specimens exist on campus. The trees are in poor condition, noted with extensive internal decay caused either by reduction cuts or large branch breakouts. Both are located in high traffic areas along the central tree corridor. If the trees are to remain, they both require a thorough safety inspection to determine the level of safety pruning necessary. One appears to be in decline, and may have to be removed regardless.

<u>Umbellularia californica</u> – One California Bay was surveyed along Pine St. The tree is a California native and is in good condition, despite the minor decay from a pruning wound.

Discussion of Group Areas

<u>Group 1, Evergreen Pears along Pine St.</u> – The trees exist at the Pine St. campus entrance. These trees were planted as an orchard, but are non-fruit bearing. Weed whacker damage, suckering, and stakes still attached to some were the problems found with the grouping. The trees are not particularly healthy.

Group 2, South-East Pond Area – This area is located in between the south end of Pine St. and Aquatic Way and serves as a natural habitat for wildlife. Some of the species identified include >50 Arroyo Willow, ≥10 Coast Live Oak, 2 Canary Island Date Palms, 5 American Elm (Ulmus americana), and Wild blackberry (Rubus ursinus). Willows are cycling out (dying and falling apart) and regenerating from branches, roots and seed as is the nature of the species in a riparian habitat. As this area is of low target value, trees were not assessed for hazards.

<u>Group 3, Eucalyptus Grove Near East Pond</u> – There is about 60-70 *Eucalyptus globulus* growing in the area just west of the east pond. The taller trees reach 110-120 feet in height. The health of the *Eucalyptus* trees ranges from Fair to Poor. One tree is dead. Evidence of Tortoise Shell Beetle (*Trachymela sloanei*) damage was observed on the leaves.

Tree safety is primarily a concern with the multi-stemmed trees. These trees were likely cut down at an earlier time and have regenerated. The now tall trees exhibit a greater potential for stem failure. Trees that have a potential to fail along the adjacent cement walking path should be removed. Most of the larger, single trunk trees are considered to be safe from a root or trunk failure. If retained, the larger trees would benefit from safety pruning to remove dead wood and reduce branch end-weight on heavy and poorly attached stems.

SBCA Tree Consulting holds the opinion that this grove does not represent a serious fire risk. This is due to the low fuel load on the ground and sufficient fire ladder clearances. If there is a question regarding the fire safety, we recommend an inspection by the local fire marshal.

Group 4, Area adjacent to North-Eastern Circle – The sixteen Crepe Myrtles all in good condition. One Aleppo Pine, three Monterey Pines also in good condition. The three Southern Magnolia trees are not doing well. Of the six Jacaranda, three are dead. Insufficient soil volume and either too much or too little water during the establishment period are the likely causes of poor performance. The two Coast Live Oak located at the entrance appear to be thriving.

<u>Group 5, Area adjacent to Mid-Northern Circle</u> – Twenty–two Crepe Myrtles are located adjacent to the circle drive. All trees appear to be in good condition. Some of the Crepe Myrtle trees have significant sucker growth at the base. Pruning has not yet caused damage to these trees. The Southern Magnolia trees are doing poorly, most likely due to insufficient soil volume and lack of moisture. The redbud growing in the median are reaching the end of their useful life expectancies for this area.

Additional trees observed on the slope downhill to the west of the circle include: Coast Live Oak, Redbud, Coyote Bush (Baccharis pilularis), juvenile Eucalyptus globulus, Eucalyptus polyanthemos, Peruvian Pepper, Chinese Pistache (Pistacia chinensis), Blackwood Acacia (Acacia melanoxylon), and Arroyo Willow. It is recommended that both the Eucalyptus and the acacia be removed from this area; the Eucalyptus species is too large and the acacia will continue to reseed throughout campus.

The wooded area to the south-east is mainly filled with Aleppo Pines (15), some Coast Live Oak and one Italian Stone Pine (*Pinus pinea*). No bad attachments were observed in the pines; root failures are the main concern as this is the habit of Aleppos and Italian Stone Pines when they receive too much water.

<u>Group 6, North-Western Orchard</u> – This area is located on either side of Witherly Lane at campus entrance. In the area are 40+Apricots (*Prunus armeniaca*) and 20+Everygreen Pears. All trees are doing poorly, as the orchard has not been tended for quite a while. Root stocks are taking over for the apricots. There appear to be no trees of value in this area.

<u>Group 7, Geijera</u> – The twelve Australian Willow trees are planted in 3'x3' planters of unknown soil volume. To become a full size tree, the willow would require an in excess of 900 cubic feet of rootable soil. If the volume of soil available for root development is severely limited, the trees will begin to decline after the soil limits have been exhausted. Proper supplemental irrigation and nutrition will extend the useful life expectancy for the trees. One of the Australian Willow trees appears to be in decline.

<u>Group 8, Purple Leaf Plums</u> – Eleven plum trees existing adjacent to Hyman Hall were surveyed as a group. Average caliper rage is 4"-7". Health ranged from Good to Poor. Stakes are still attached to some trees. Suckering from root stock is prolific on all of the plums. The trees do not appear to be worth retention as the suckering cannot be controlled. The reason for the extensive root suckering is not known.

Discussion of Ground Squirrel Problems

A population of ground squirrels was noted throughout the campus. These rodents have the potential to cause significant damage (mounds of dirt and large holes in the earth), which will increase if the animals are not controlled. It is recommended that professional help be sought in this matter.



Future Management of Tree Population

<u>Training and Standards</u> – The current level of pruning care must not continue. Inappropriate pruning care will compromise campus tree safety and longevity. Pruning must be undertaken by personnel knowledgeable in the American National Standards Institute(ANSI) A300 Best Management Practices. Training and Certification can be attained through the International Society of Arboriculture (ISA).

<u>Tree Maintenance Program</u> – Tree maintenance requires knowledgeable personnel, a secure budget and the ability to prioritize costs in an efficient manner. Maintenance must be prioritized based upon safety and the preservation of the most valuable trees.

Additional Species Suitable for the Ohlone College Campus

The additional species suggestions are provided to further diversify the tree population. As with any tree species, each has its particular preferences and tolerances. Thus, trees that come from mesic (summer moisture) environments are better suited for turf areas than are California natives. Though this report does not provide those specific limitations and tolerances of the trees, it is critical that anyone suggesting the planting of new species be familiar with the requirements.

Species selections must be based upon factors such as available soil volume, presence of supplemental moisture, sun and wind exposure, and space available for the crown to spread.

These are some ideas for potential species, and by no means all:

Potential species and cultivars recommended for use or addition use include:

- 1. Cork Oak (Quercus suber)
- 2. Chinese Pistache (Pistacia chinensis)
- 3. California Sycamore (*Platanus* racemosa)
- 4. Tupelo (Nyssa sylvatica)
- 5. Black Locust (Robinia pseudoacacia)
- 6. Silk Oak (Grevillea robusta)
- 7. Valley Oak (Quercus lobata)

- 8. Japanese Zelkova (Zelkova serrata)
- 9. Brazilian Pepper (Schinus terebinthifolius)
- 10. California Buckeye (Aesculus californica)
- 11. Red Flowering Gum (Corymbia ficifolia)
- 12. Freeman Maple (Acer freemanii)

Trees identified on campus that are no longer recommended for use include:

- 1. Southern Magnolia (Magnolia grandiflora)
- 2. Coast Redwood (Sequoia sempervirens)

Concluding Remarks

It is apparent that the rows of olive trees have a significant historical context. Without the correct pruning care, the trees can be expected to continue to lose large stems and decay. Because of inappropriate pruning care in the past, the maintenance now required is significant. The problematic structural condition the trees now necessitates a higher level of maintenance. There is a significant liability associated with failure as the path is a high traffic area.

The large pecan tree and the paradox walnut are of significant value and, as such, require proper input to retain that value. Branch end-weight reduction in accordance with ANSI A300 Standards is needed to prevent branch failure.

The many young Coast Live Oak trees WILL ONLY provide long term benefit to the campus if they receive the correct early structural pruning and care. Young oak trees planted on cut slopes where not topsoil exists require mulch. In addition, lower branches on these trees should not be removed as the nature of the species is to spread out to shade the root zone.

TREE PRESERVATION GUIDELINES

These guidelines provide for the care and maintenance of trees before, during and after construction. The goal of tree protection and preservation guidelines is to provide for a successful transition for the tree(s) within the modified site.

To be most effective, tree preservation and health mitigation measures should commence well before the time the trees are to be adversely impacted.

SITE ANALYSIS AND EARLY TREE HEALTH MITIGATION

The information gained from site analysis is utilized in the guidelines for root and soil protection and to assure that adequate mitigation treatments are provided.

<u>Soil Profile Examination</u> – The soil profile examination determines soil texture, moisture levels, and the depth of roots. This information is vital to the understanding of the level of soil protection and the modification that will be necessary.

<u>Soil and Leaf Tissue Analysis</u> – Laboratory analysis of soil and leaf tissue helps identify limitations in soil nutrition, the presence of heavy metals, pH problems and numerous identifiable limitations. Soil can only be properly amended after the limitations are identified.

<u>Root Investigation</u> – Understanding the depth, size and amount of roots present is required to avoid damaging roots and to determine the level of mitigation that will be required.

<u>Fluorometer Readings</u> – This tool can be used to determine the general health of the trees prior to construction and to track tree health during and after construction activities. The chlorophyll fluorometer can identify decline in tree vigor before signs can be noted in the appearance of the tree.

PRE-CONSTRUCTION ACTIVITIES

These activities should be undertaken prior to initiation of construction activity. In addition to modifications to the project design to reduce tree impacts, all steps that improve the health of trees prior to construction will greatly improve the chance of survival.

<u>Timing of Root Loss</u> – Root loss that occurs in late fall is preferable to cutting tree roots in the spring. Pruning activities are best undertaken in mid to late summer or winter. Pruning both the canopy and roots at the same time should be avoided if possible.

<u>Design</u> – The design must minimize damage and be consistent with the requirements of the trees.

<u>Designate Tree Root Protection Zone</u> (RPZ) –The tree protection zone designates an area surrounding a tree or grouping of trees that is to be fenced off from all access until designated by a certified arborist. The RPZ is commonly defined as one (1) foot radial distance for every one (1) inch in tree diameter (DBH). Example: A single stem tree measuring 30 inches in diameter, (measured at 54 inches or 4.5 feet above grade) would have a critical root zone with a radius of 30 feet. This is roughly equivalent to the area commonly referred to as the "drip zone."



Arborist can modify the RPZ distance from the base of the tree based upon site conditions and the level of root presence. It should be understood that tree roots often extend out from the base to more than three times the distance defined by the critical root zone. An arborist should monitor all grading and trenching activity that is within twice the distance of the RPZ. The larger the protection zone that is provided, the greater the likelihood of long-term tree survival.

<u>Tree Root Protection Zone Fencing</u> - Tree protection fencing shall be 6' tall chain link type, mounted to steel posts driven firmly into the ground.

<u>Root Protection and Root Pruning</u> - Root protection measures must be in place prior to the beginning of construction activities. Necessary root pruning is best accomplished prior to the beginning of construction activities when excavation equipment will be used. After being exposed by hand or air excavation, roots are pruned under arborist supervision. Construction activities are then free to occur outside of the root pruning boundary.

<u>Supplemental Irrigation</u> - Arborist will designate supplemental irrigation based upon the level of root loss, soil conditions, tree health and time of year.

<u>Mulching</u> - Use of four to six inches of organic mulch (wood chips are best) on soil surface will reduce soil compaction and evaporative soil moisture loss. Recommended material is wood chips generated from tree trimming. Fresh redwood, incense cedar and walnut chips are not acceptable, nor is palm generated mulch.

<u>Compost</u> - Compost is often recommended for placement immediately under the mulch. Good quality compost provides nutrient value. Compost must be represented by a recent laboratory analysis to confirm quality.

<u>Pruning</u> - All pruning must comply with ANSI A300 Pruning Standards. Pruning must be minimized, particularly when root loss occurs. Pruning prior to construction should include: Necessary Clearance Pruning, Deadwood Removal and Safety Pruning.

TREE PROTECTION DURING CONSTRUCTION

The level of arborist monitoring of the project can be quite variable, depending upon the degree of encroachment into root systems and the early levels of contractor compliance with the tree protection guidelines.

<u>Pre-Construction Meeting with all Construction Personnel</u> - It is important that construction crew understands the tree protection requirements. All personnel working on site should be provided an orientation to tree preservation measures and rules by the arborist assigned to monitor tree preservation.

<u>Observe Fenced RPZ</u> - This area is off limits to all personnel, equipment, materials storage, or any other activities. Fencing may be relocated only under arborist supervision.

WORK ACTIVITIES OCCURING WITHIN THE DESIGNATED RPZ

<u>Arborist Supervision</u> - All activities occurring inside of the designated RPZ must be approved and an arborist must be present to supervise tree protection and root pruning activities.

Root Protection - Areas where roots cannot be fenced require protection from contaminants and compaction. The effects of foot traffic can be mitigated through the use of six (6) inches of wood chip mulch and ¾ inch plywood placed on top.

When equipment is to be used inside of the designated RPZ, soil must be covered with 12 inches of wood chips and two layers of ¾ inch plywood or one layer of 1 1/8 inch plywood or metal trench plates.

<u>Trunk and Scaffold Protection</u> - Whenever construction activity must occur inside the tree protection zone, the base of the tree and the first eight-feet of the trunk must be protected. Protection is generally provided by wrapping the trunk up to the first branch with 10 wraps of orange plastic construction fencing or use of straw waddles wrapped around the tree. Additional protection can be provided by either straw bales or use of vertical 2x4 boards strapped to the tree. Arborist may require any or all of the trunk protection measures depending upon the situation.

<u>Soil Moisture Control</u> - Water stress is detrimental to tree health, particularly during the spring. Supplemental irrigation is required whenever tree roots are uncovered or severed due to trenching or grading. Open trenches with exposed roots require minimum two layers of damp burlap or other acceptable covering at all times. An arborist will determine the amount of supplemental watering required based upon soil moisture investigation and weather conditions.

<u>Required Method of Trenching Within Critical Root Zone</u> - Carefully hand excavation or tunneling shall be the accepted method for installing underground utilities. The Air Spade can also be used much more efficiently when a large amount of such trenching must be undertaken. Arborist is to supervise any such activity.

POST CONSTRUCTION MITIGATION

All valuable trees which have been impacted in any manner (root loss, soil moisture changes, or necessary pruning) will require mitigation to offset the adverse impact and maintain the level of vigor in the tree prior to being impacted impact. Trees that were not vigorous prior to construction will require extra care.

<u>Monitoring Tree Health</u> - Regular visual inspection of trees will aid in assessing where further mitigation is required. Tree decline should be recorded and referenced against pre-construction health assessment. Leaf and stem insects and fungal pathogens are a sign of poor tree health (low energy reserves).

Monitoring of Soil Moisture - It is important that significant changes in soil moisture levels within tree root zones be identified early, prior to visible evidence of tree decline. Moisture should be monitored by visual inspection using a soil probe or through the use of tensiometers placed at key locations. Supplemental irrigation is best provided during middle and late spring. In cases where trees have suffered root loss, supplemental irrigation will be required for a number of years in the area where roots were severed.



<u>Mitigation of Soil Compaction</u> - The level and depth of soil compaction must be assessed and mitigated as necessary. Mitigation of soil compaction in areas where roots are present must minimize root loss. Tools most suitable to mitigate soil compaction are the water jet or air spade.

<u>Landscaping</u> - All landscaping planning must take precautions when planting within the designated RPZ. All plant materials should be selected for compatibility with the favored moisture regime of the trees. With native oak trees, this is particularly critical. Irrigation must be designed to comply with the requirements of the tree species and soil conditions. Irrigation lines must minimize root loss and pass under roots when possible. Air spade is recommended for excavation within the designated RPZ.

<u>Continued Mulching</u> - Mulch is extremely beneficial in creating a healthy root environment. A regular program of mulch application is recommended to help retain soil moisture, provide a source of nutrients, and help control weeds. The continued use of good quality compost as a mulch is beneficial as a source of nutrition.

<u>Fertilization</u> - Prior to fertilization, soil analysis and possibly leaf tissue analysis must be undertaken. Trees should be fertilized only when the nutritional limitations have been identified. Leaf tissue analysis is another excellent tool for this determination. Excessive nitrogen fertilization is known to draw sucking insects (aphid, scale, etc.) to the plants and provide nutrition to fungal pathogens in the soil.

<u>Pest Management Program</u> - Healthy trees do not generally have serious pest problems. Stressed trees are attractive hosts to pathogens, which can contribute to decline and eventual death. Pest management is prescribed when monitoring indicates a need and tree health is marginal.

End Report

Ohlone College Tree Survey Data

COLUMN HEADING DESCRIPTIONS

Tag# - Indicates the number tag attached to tree

Zone - Assessment Zone 1, 2A and 3

Old Tag # - Previous survey tag

Site Type - Parkway (P), Cutout (C), Median (M), Raised Planter (R), Open Maintained (OM), Open Un-maintained (UM)

Species - Scientific name

DBH - Diameter measured in inches at 4.5 feet above soil grade

Structure- Tree Structural Safety: E is Excellent, G is Good, F is Fair, P is Poor, H is Hazardous

Health -Tree Health: E is Excellent, G is Good, F is Fair, P is Poor, D is Dead or Dying

Maintenance Priority - 1= High, 2= Moderate, 3 = Low, 0 is None

Sidewalk Damage - N is None, 1 is 1/2 to 1 inch, 2 is greater than 1 inch

Spread - In feet

Site Conditions - Irrigated, Irrigated turf, Non-irrigated

Useful Lifespan - less than 5 years, less than 20 years, over 20 years

Notes - See defect

ABBREVIATIONS AND DEFINITIONS

Defect -		WW- Weed Whacker Damage, PP - Poor Pruning, EB - Embedded Bark/Included Bark, CD - Codominant, CDEB - Codominant with Included Bark
	enance iired -	SP- Structural Pruning, T - Thinning, CP - Clearance Pruning, RS - Remove Stakes, R - Remove, , MI - Mitigate Irrigation, MM - Mitigate Soil Compaction and Mulch, SI - Safety Inspection

Tag#	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
1	UM	Quercus agrifolia	11	25	G	G	SP1, T1	N	NI	>20	Girdled by rope; Arborist cut it out
2	UM	Quercus agrifolia	13.5	25	F	G	CP1, SP1	N	NI	>20	Minor EB, Clearance from light pole and parking lot
3	UM	Quercus agrifolia	7	15	F	G	SP1, RS1	N	NI	>20	Minor EB

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
4	UM	Quercus agrifolia	9.5	20	F	G	SP1	N	NI	>20	
5	UM	Quercus agrifolia	5.5	10	F	G	SP1	N	NI	>20	
6	UM	Quercus agrifolia	12.5	25	Р	G	SP1	N	NI	>20	EB x 2
7	UM	Quercus agrifolia	12	25	Р	G	SP1	N	NI	>20	EB
8	UM	Quercus agrifolia	11	30	Р	G	SP1	N	NI	>20	CDEB
9	UM	Quercus agrifolia	5.5	10	G	G	SP1	N	NI	>20	Staining (wetwood) possibly from stake
10	UM	Quercus agrifolia	1.5	5	F	F	SP1	N	NI	>20	Top dieback, but new top available
11	UM	Quercus agrifolia	2	3	G	G	SP1	N	NI	>20	Very close to #12
12	UM	Quercus agrifolia	1.5, 1.5, 1.5	5	F-P	F	R3	N	NI	>20	#11 is a better tree.
13	UM	Quercus agrifolia	14	35	Р	G	SP1	N	NI	>20	Spike wounds, Wetwood, EB x 4
14	UM	Quercus agrifolia	12	20	F	G	SP1	N	NI	>20	
15	UM	Quercus agrifolia	15.5	30	F	G	SP1	N	NI	>20	EB
16	UM	Quercus agrifolia	12	30	F-G	G	SP1	N	NI	>20	
17	UM	Quercus agrifolia	12, 7	35	G	G	SP1	N	NI	>20	Basal wound
18	UM	Lagerstroemia indica x fauriei	1.5	5	Р	F-P	R3	N	NI	<5	Under oak canopy

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
19	UM	Lagerstroemia indica x fauriei	3	3	G	G	SP3, RS1	N	NI	>20	Suckers
20	UM	Lagerstroemia indica x fauriei	4.5	10	F-P	G	SP3, RS1	N	NI	>20	Suckers
21	UM	Lagerstroemia indica x fauriei	5	10	F	G	SP3, RS1	N	NI	>20	Suckers
22	UM	Lagerstroemia indica x fauriei	4.5	15	F-G	G	SP3, RS1	N	NI	>20	Suckers
23	UM	Lagerstroemia indica x fauriei	5	15	G	G	RS1	N	NI	>20	
24	UM	Lagerstroemia indica x fauriei	3, 2, 1.5	10	F	G	SP3, RS1	N	NI	>20	Suckers
25	UM	Lagerstroemia indica x fauriei	1	2	F	Р	R3	N	NI	<5	Poor specimen- Replace
26	UM	Lagerstroemia indica x fauriei	3	5	F	F	SP3, RS1	N	NI	>20	Suckers
27	UM	Lagerstroemia indica x fauriei	2, 2, 1.5	5	F	G	SP3, RS1	N	NI	>20	
28	М	Cercis occidentalis	2" Multi	15	F	F	-	N	NI	<5	РР
29	М	Cercis occidentalis	3" Multi	15	F-P	F	-	N	NI	<5	РР
30	М	Cercis occidentalis	4" Multi	15	F-P	Р	-	N	NI	<5	PP
31	М	Cercis occidentalis	1.5" Multi	15	F	F-P	-	N	NI	<5	PP
32	М	Cercis occidentalis	2" Multi	20	F	F	-	N	NI	<5	PP
33	М	Cercis occidentalis	2" Multi	5	F-G	Р	-	N	NI	<5	PP

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
34	М	Cercis occidentalis	2.5" Multi	10	F	Р	-	N	NI	<5	PP
35	M	Cercis occidentalis	1.5" Multi	10	F	Р	-	N	NI	<5	PP
36	М	Cercis occidentalis	1.5" Multi	10	Р	F	-	N	NI	<5	PP
37	M	Cercis occidentalis	1" Multi	5	F	F	-	N	NI	<5	
38	М	Magnolia grandiflora	2.5	10	F	Р	-	N	NI	<5	Wrong tree, wrong place
39	UM	Schinus molle	4	15	F	G	SP3, MM1	N	NI	>20	Choose between pepper and oak
40	UM	Lagerstroemia indica x fauriei	2	2	F	F	R3	N	NI	<5	Crowding, pepper and oak are better trees
41	UM	Quercus agrifolia	2	3	G	G	SP1	N	NI	>20	Choose between pepper and oak
42	UM	Eucalyptus camaldulensis	41	45	F	G	EWR1	?	NI	>20	Fungal conk at base, Maybe best to remove in favor of oak
43	UM	Quercus agrifolia	4	10	G	G	SP1	N	NI	>20	
44	UM	Pyrus kawakamii	14	25	F	F-G	SP5, DW5	N	NI	>20	Fire blight, Suckers
45	UM	Pyrus kawakamii	9	25	F	F-G	DW5	N	NI	>20	Fire blight
46	UM	Pyrus kawakamii	7.5	15	F	F	EWR5	N	NI	>20	Basal wound, WW
47	UM	Pyrus kawakamii	6.5	15	F	F-G	-	N	NI	>20	ww
48	UM	Pyrus kawakamii	10	25	G	F-G	DW5	N	NI	>20	Fire blight

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
49	UM	Pyrus kawakamii	10	25	G	F-G	DW5	N	NI	>20	Fire blight
50	UM	Pyrus kawakamii	14	35	F	F-G	DW5	N	NI	>20	PP
51	UM	Cedrus atlantica	39.5	50	F	G	EWR1	N	NI	>20	Flush cuts, PP, Lots of breakouts, Previously topped, Decay
52	UM	Ulmus procera	42.5	50	Р	Р	SI1	N	NI	<10	Extensive ID, Breakouts, Extensive, Recommend removal without full safety inspection
53	UM	Magnolia grandiflora	2	3	Р	Р	R5	N	NI	<5	Major basal damage, Wrong tree, wrong place
54	UM	Lagerstroemia indica x fauriei	3" Multi	5	F	G	RS1	N	NI	<20	РР
55	Р	Lagerstroemia indica x fauriei	4" Multi	10	Р	G	R5	N	NI	<5	Split down center
56	UM	Lagerstroemia indica x fauriei	2" Multi	10	F	G	SP3	N	NI	<20	Suckers
57	Р	Lagerstroemia indica x fauriei	1" Multi	5	Р	F	R5	N	NI	<5	PP
58	UM	Lagerstroemia indica x fauriei	2.5" Multi	10	F	G	RS1	N	NI	<20	Suckers
59	UM	Lagerstroemia indica x fauriei	2" Multi	5	F	F-P	RS1	N	NI	<20	Suckers
60	UM	Lagerstroemia indica x fauriei	2" Multi	5	Р	Р	RS1	N	NI	<5	Breakout, Suckers
61	UM	Lagerstroemia indica x fauriei	1.5" Multi	10	F	F	RS1	N	NI	<20	Suckers

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
62	UM	Lagerstroemia indica x fauriei	3, 2.5, 2	10	F	Р	R5	N	NI	<5	Mostly rootstock, Powdery mildew
63	UM	Lagerstroemia indica x fauriei	1.5" Multi	10	Р	Р	SP3, RS1	N	NI	<5	Suckers
64	UM	Lagerstroemia indica x fauriei	4.5	10	Р	F-P	R5	N	NI	<5	Split down center
65	Р	Lagerstroemia indica x fauriei	5.5 @ 3'	15	Р	F	-	N	NI	<20	Breakouts, Aphids, PP
66	Р	Lagerstroemia indica x fauriei	5.5 @ 3'	15	F-G	F-G	-	N	NI	>20	PP
67	Р	Lagerstroemia indica x fauriei	5 @ 2'	15	G	F-G	1	N	NI	>20	PP
68	Р	Lagerstroemia indica x fauriei	5.5 @ 3'	15	G	F-G	-	N	NI	>20	
69	Р	Lagerstroemia indica x fauriei	4.5 @ 3'	15	F	F-G	-	N	NI	>20	
70	Р	Lagerstroemia indica x fauriei	5 @ 3'	15	F-G	F-G	-	N	NI	>20	PP
71	UM	Platanus racemosa	22.5	55	G	G	EWR3	N	NI	>20	
72	Р	Pyrus kawakamii	7.5	20	Р	F	R5	N	NI	<20	Under Sycamore canopy
73	Р	Pyrus kawakamii	8.5	25	F	F	-	N	NI	<20	PP
74	Р	Pyrus kawakamii	8	15	F-P	F	-	N	NI	<20	PP
75	Р	Pyrus kawakamii	6.5	20	F	F	-	N	NI	<20	PP

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
76	UM	Carya illinoinensis	51.5	115	G	G	EWR2	N	NI	>20	PP, Spectacular tree, 100 ft in height. Larger than the offical champion on the Official Registry of California Big Trees. Worth 288 points total.
77	UM	Juglans regia	39	45	F	G	Remove Ivy1, DW1	N	NI	>20	Priority is to remove ivy. Dead wood can be cut out as well
78	UM	Schinus molle	27, 32, 63	55	Р	G	-	N	NI	<20	Big branch broken, Leave it be and let it die with dignity.
79	UM	Lagunaria patersonia	11	20	F	F	-	N	NI	>20	PP
80	Р	Pyrus kawakamii	7	15	F	F-P	CP2	N	NI	<20	Street clearance
81	Р	Pyrus kawakamii	5	10	F	F-P	-	N	NI	<20	
82	Р	Pyrus calleryana	3, 3, 2.5, 2.5	10	F	F	CP2	N	NI	<20	PP, Multi, Root stock
83	Р	Pyrus kawakamii	5	15	F	F-P	-	N	NI	<20	PP
84	Р	Pyrus kawakamii	5.5	20	F	F-P	-	N	NI	<20	PP
85	Р	Pyrus kawakamii	6.5	20	F	F	-	N	NI	<20	PP
86	Р	Pyrus kawakamii									Dead
87	Р	Pyrus kawakamii	4.5	15	F	F	RS1	N	NI	<20	

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
88	Р	Pyrus kawakamii	10.5	5	Р	Р	-	N	NI	<5	
89	Р	Pyrus kawakamii	2.5, 3, 2, 2	15	Р	F	-	N	NI	>20	PP
90	Р	Pyrus kawakamii	6	20	F	F	-	N	NI	>20	PP
91	Р	Pyrus kawakamii	6	15	F	F	-	N	NI	>20	PP
92	Р	Pyrus kawakamii	6	20	F	F	-	N	NI	>20	
93	Р	Pyrus kawakamii	5	15	F	F	-	N	NI	>20	PP
94	UM	Umbellularia californica	14.5	45	G	G	-	N	NI	>20	Minor decay on large pruning wound
95	UM	Schinus molle	36	35	Р	F-G	-	N	NI	<20	Major decay
96	Р	Pyrus kawakamii	5	20	F	F	CP2	N	NI	>20	PP, Street clearance
97	Р	Pyrus kawakamii	4.5	15	F	F-P	CP2	N	NI	>20	PP, Street clearance
98	Р	Cupressus sempervirens	41.5	40	F	G	RCI	N	NI	>20	Small limb is cracked, ID?, PP, Might be buried-No root flare
99	Р	Pyrus kawakamii	6	20	F	F	CP2	N	NI	>20	Lean, Street clearance
100	Р	Pyrus kawakamii	8	25	F	G	SP2, CP2	N	NI	>20	EB- structurally prune to correct, Lean, Street clearance
101	Р	Pyrus kawakamii	6	30	F	G	CP2	N	NI	>20	Lean, Street clearance

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
102	Р	Pyrus kawakamii	7	25	F	G	CP2	N	NI	>20	Lean, Street clearance
103	Р	Pyrus kawakamii	6	20	F	F-G	CP2	N	NI	>20	Lean, Street clearance
104	Р	Pyrus kawakamii	7.5	30	F	F-G	CP2	N	NI	>20	Lean, Street clearance
105	Р	Pyrus kawakamii	9	25	F	G	-	N	NI	>20	Breakout
106	Р	Pyrus kawakamii	6	20	F	F-G	CP2	N	NI	>20	Street clearance
107	Р	Pyrus calleryana	3, 4, 3.5	15	F	G	CP2	N	NI	>20	PP, Street clearance
108	Р	Pyrus kawakamii	4.5	15	F	F	CP2	N	NI	>20	Street clearance
109	Р	Pyrus kawakamii	4	15	F	F	CP2	N	NI	>20	Sidewalk clearance
110	Р	Pyrus calleryana	5.5	15	F	G	SP2, CP2	N	NI	>20	Dead branch, Street clearance
111	Р	Pyrus kawakamii	5	15	F	F	CP2	N	NI	>20	Street clearance
112	Р	Pyrus kawakamii	4.5	15	F	F	-	N	NI	>20	
113	Р	Pyrus kawakamii	6	20	F	F-G	CP2	N	NI	>20	Street clearance
114	Р	Pyrus kawakamii	6.5	25	F	F-G	CP2	N	NI	>20	Street clearance
115	UM	Juglans × paradox	21	60	F-G	G	-	N	NI	>20	PP, Lean
116	UM	Pyrus kawakamii	7	20	F	F	-	N	NI	>20	Lean

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
117	Р	Pyrus kawakamii	6.5	25	F	F	CP2	N	NI	>20	Street clearance
118	Р	Pyrus kawakamii	5	15	F	F	RS1, CP2	N	NI	>20	Street clearance
119	Р	Pyrus kawakamii	5	15	F	F	RS1	N	NI	>20	
120	Р	Pyrus kawakamii	4.5	15	F	F	-	N	NI	>20	
121	Р	Pyrus kawakamii	3.5	10	F	Р	R	N	NI	<20	Bad specimen, Circling roots
122	Р	Pyrus kawakamii	5.5	20	F	F	CP2	N	NI	>20	Street clearance
123	UM	Pyrus kawakamii	6	15	F	F	CP2	N	NI	>20	Street clearance
124	UM	Pyrus kawakamii	8.5	25	F	F	RS1, CP2	N	NI	>20	Street clearance
125	UM	Pyrus kawakamii	2.5	5	Р	Р	R	N	NI	<20	Bad specimen, Circling roots
126	UM	Pyrus kawakamii	8	25	G	F-G	CP2	N	NI	>20	Lean, Street clearance
127	UM	Pyrus calleryana	4	5	Р	P-D	R	N	NI	<5	PP, Almost dead
128	UM	Pyrus kawakamii	5	20	F	F-G	-	N	NI	<20	РР
129	UM	Pyrus kawakamii	5	15	F	F	-	N	NI	<20	РР
130	UM	Pyrus kawakamii	3.5	10	F	F-P	-	N	NI	<20	РР
131	UM	Pyrus kawakamii	3	10	F	F-P	-	N	NI	<20	РР

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
132	UM	Pyrus kawakamii	3.5	10	F	F	-	N	NI	>20	PP
133	UM	Pyrus kawakamii	3	10	F	F	-	N	NI	>20	PP, Dead elm adjacent
134	UM	Pyrus kawakamii	3	15	F	F	-	N	NI	>20	
135	UM	Pyrus kawakamii	4	15	F	F	-	N	NI	>20	PP
136	UM	Pyrus kawakamii	5.5	20	F	F	-	N	NI	>20	
137	UM	Pyrus kawakamii	4	15	F	F-P	-	N	NI	<20	
138	UM	Pyrus kawakamii	2	5	Р	Р	R	N	NI	<5	Circling roots, Basal damage
139	UM	Pyrus kawakamii	2	2	Р	Р	R	N	NI	<5	
140	UM	Pyrus kawakamii	4.5	15	F	F	-	N	NI	>20	
141	UM	Pyrus kawakamii	4	10	F	F-P	-	N	NI	<20	
142	UM	Pyrus kawakamii	3.5	15	F	F-P	-	N	NI	<20	
143	UM	Prunus amygdalus	7.5, 11, 10, 7.5	30	Р	F-P	-	NI	NI	<20	EB, Lean, Buried base
144	UM	Olea europaea	9, 9, 11, 9.5	55	Р	F	-	N	NI	>20	
145	UM	Laurus nobilis	3	10	Р	Р	-	N	NI	<5	Basal wound, Off color foliage
146	UM	Laurus nobilis	3.5, 5, 4.5, 4.5	25	F-P	G	-	N	NI	<20	Basal wound

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
147	UM	Quercus agrifolia	22.5	40	F-G	G	-	N	NI	>20	Lean
148	UM	Schinus molle	18	35	F	F-G	-	N	NI	>20	Lean, ID in pruning wound
149	UM	Schinus molle	11	35	F	F-G	-	N	NI	>20	Squirrel damage, Lean
150	UM	Schinus molle	7	20	F	F-G	-	N	NI	>20	Significant lean
151	UM	Schinus molle	19	25	F	F-G	-	N	NI	>20	Significant lean
152	UM	Schinus molle	12	30	F	Р	-	N	NI	<5	
153	UM	Schinus molle	12	25	F	F	-	N	NI	>20	Lean
154	UM	Schinus molle	25	20	Р	Р	-	N	NI	<5	Major ID
155	UM	Olea europaea	7, 5.5	30	F	G	-	N	NI	>20	Crowded
156	UM	Schinus molle	8, 13	35	F	F-G	-	N	NI	>20	Significant lean
157	UM	Schinus molle	20.5	40	F	F-G	-	N	NI	>20	Minor ID, Significant lean
158	UM	Schinus molle	16	30	F	F-G	-	N	NI	>20	Significant lean
159	UM	Schinus molle	18	35	F	F-G	-	N	NI	>20	Significant lean
160	UM	Schinus molle	15	25	F	F	-	N	NI	>20	ID
161	UM	Schinus molle	10	35	F	F	-	N	NI	>20	Significant lean

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
162	UM	Laurus nobilis	3.5	10	F	F	-	N	NI	>20	PP, Basal damage
163	UM	Olea europaea	21, 23	40	F-P	F	-	N	NI	>20	PP!, Hazard beam fracture, Breakout, ID
164	UM	Olea europaea	20.5	30	Р	Р	-	N	NI	<20	Top dieback, Breakout
165	UM	Olea europaea	14.5, 16	30	Р	Р	-	N	NI	<20	Top dieback
166	UM	Cercis occidentalis	9, 10, 7, 7.5	30	F	F	-	N	NI	<20	
167	UM	Pinus sylvestris	11	15	F	F	RCI	N	NI	>20	Canker, Sequoia pitch moth, Buried base
168	UM	Schinus terebinthifolius	17	30	G	Р	RCI	N	NI	<20	Buried base
169	UM	Schinus molle	15.5	25	F	F	-	N	NI	>20	Significant lean
170	UM	Schinus molle	20, 22.5	45	F	F	-	N	NI	>20	CD
171	UM	Quercus suber	25	45	G	F-P	MM	N	NI	>20?	Root disease, Bleeding lesions on trunk
172	UM	Quercus agrifolia	9.5	20	Р	G	SP1	N	NI	>20	CDEB, Prune for dominance
173	UM	Schinus molle	50, 31	35	Р	F-G	-	N	NI	<20	Hollow, Significant ID
174	UM	Schinus molle	24	35	F-P	F-G	-	N	NI	>20	ID
175	UM	Quercus agrifolia	6.5, 10.5	25	Р	G	SP1	N	NI	>20	EB, Prune to reduce weight on EB branch
176	UM	Quercus agrifolia	13.5	55	F-P	G	SP1	N	NI	>20	Rotary Club Tree

Tag#	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
177	UM	Quercus agrifolia	13	30	G	G	SP1	N	NI	>20	Minor canker on base
178	UM	Quercus agrifolia	13	20	F-G	G	SP1	N	NI	>20	
179	UM	Quercus agrifolia	11, 11.5, 14.5	30	F-G	G	CP1, SP1	N	NI	>20	Minor EB x 2
180	UM	Quercus agrifolia	17.5	40	G	G	EWR1	N	NI	>20	EWR on heavy laterals, Fiber buckling
181	UM	Quercus agrifolia	17.5	35	G	G	DW, SP1	N	NI	>20	Prune to create dominance
182	UM	Quercus agrifolia	14	30	F	G	DW, SP1	N	NI	>20	Minor EB
183	UM	Quercus agrifolia	16	35	F	G	EWR1	Υ	NI	>20	EB, Unweight stem towards tennis courts
184	UM	Quercus agrifolia	17	30	G	G	DW, SP1	N	NI	>20	
185	UM	Quercus agrifolia	17	35	Р	Р	DW, SP1	N	NI	>20	EB x 3
186	UM	Quercus agrifolia	13	30	G	G	DW	N	NI	>20	
187	UM	Quercus agrifolia	16.5	30	G	G	DW	N	NI	>20	CD
188	UM	Quercus agrifolia	13.5	30	F	F-G	DW	N	NI	>20	Minor lesion on base
189	UM	Quercus agrifolia	10.5	30	G	G	-	N	NI	>20	CD
190	Um	Quercus agrifolia	9	25	G	G	-	N	NI	>20	CD
191	UM	Quercus agrifolia	16.5	50	Р	G	EWR1, SP1	N	NI	<20	EB opening up, Lean, EWR on stem splitting open

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
192	UM	Quercus agrifolia	13	30	G	G	-	N	NI	>20	
193	UM	Quercus agrifolia	12.5	30	F	G	SP1	N	NI	>20	EB
194	UM	Quercus agrifolia	14	25	G	G	DW	N	NI	>20	
195	UM	Quercus agrifolia	12	20	G	G	DW	N	NI	>20	
196	Р	Pyrus kawakamii	6	20	F	G	CP2	N	NI	>20	Street clearance
197	Р	Pyrus calleryana	3, 3, 3, 3.5	15	F	G	CP2	N	NI	>20	Root stock, Street clearance
198	Р	Pyrus kawakamii	6	15	G	G	-	N	NI	>20	PP
199	UM	Quercus agrifolia	8.5	15	F	F	SP1	N	NI	>20	Powdery mildew
200	UM	Quercus agrifolia	4	8	F	F	SP1	N	NI	>20	
201	UM	Quercus agrifolia	1.5	8	F	Р	SP1	N	NI	>20?	
202	UM	Quercus agrifolia	12.5	30	G	F	SP1	N	NI	>20	Off color foliage, CD
203	UM	Quercus agrifolia	1.5	5	G	Р	MI1	N	NI	>20	Requires supplemental irrigation
204	UM	Quercus agrifolia	1.5	10	Р	Р	MI1	N	NI	>20	Requires supplemental irrigation
205	UM	Quercus agrifolia	5	15	F	F	SP1	N	NI	>20	Requires supplemental irrigation
206	UM	Quercus agrifolia	4	10	F	F	SP1	N	NI	>20	

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
207	UM	Quercus agrifolia	8	15	F	F-G	SP1	N	NI	>20	
208	UM	Quercus agrifolia	3	5	F	G	SP1	N	NI	<20	Lean, Planted too low. Raise.
209	UM	Quercus agrifolia	3	5	G	G	MI1	N	-	>20	Squirrel damage, Early senesence, Overwatering?
210	М	Quercus agrifolia	3.5	10	F	F	MI1, SP1	N	I	>20	Overwatering?
211	М	Quercus agrifolia	3	5	F	Р	MI1	N	I	>20	Overwatering?
212	М	Quercus agrifolia	6.5	20	F	Р	RS1, SP1	N	NI	>20	Tree tie too tight
213	М	Quercus agrifolia	8	20	F	F	SP1	N	NI	>20	
214	UM	Quercus agrifolia	9.5	20	F	F-G	SP1	N	NI	>20	
215	UM	Quercus agrifolia	7	15	G	F	-	N	NI	>20	
216	UM	Quercus agrifolia	4	10	F	F-G	SP1	N	NI	>20	EB, Shaded
217	UM	Quercus agrifolia	5, 8	15	F	F-G	-	N	NI	>20	Shaded
218	UM	Quercus agrifolia	4, 4	15	G	F-G	-	N	NI	>20	Shaded
219	UM	Quercus agrifolia	3	5	G	F-G	-	N	NI	>20	Shaded
220	UM	Quercus agrifolia	6.5	10	G	F-G	-	N	NI	>20	CD, Shaded
221	UM	Quercus agrifolia	6	10	G	F-G	-	N	NI	>20	Shaded

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
222	UM	Quercus agrifolia	5	15	G	F-G	-	N	NI	>20	Immediately adjacent to Euc, Shaded
223	UM	Quercus agrifolia	5.5	10	G	F-G	-	N	NI	>20	Shaded
224	UM	Quercus agrifolia	3	10	G	F-G	-	N	NI	>20	Shaded
225	UM	Quercus agrifolia	3.5	10	G	F-G	-	N	NI	>20	Shaded
226	UM	Salix lasiolepis	8, 5	30	F	F	-	N	NI	<20	
227	UM	Salix lasiolepis	15, 4.5	25	F	F	-	N	NI	<20	
228	UM	Quercus agrifolia	8.5	15	G	G	-	N	NI	>20	
229	UM	Quercus agrifolia	4, 2.5	10	G	G	-	N	NI	>20	
230	UM	Pseudotsuga menziesii	8	10	G	F	-	N	NI	>20	Not a lot of foliage
231	UM	Sequoia sempervirens	21, 10	20	G	F-G	-	N	NI	>20	
232	UM	Sequoia sempervirens	34	20	F	Р	-	N	NI	<20	Large basal wound
233	UM	Sequoia sempervirens	5	15	Р	F	-	N	NI	>20	Lean, Large basal wound
234	UM	Sequoia sempervirens	21.5	20	F	F-P	-	N	NI	<20	
235	UM	Sequoia sempervirens	15	15	F	F	-	N	NI	>20	CD top
236	UM	Sequoia sempervirens	25.5	15	Р	F	-	N	NI	>20	CDEB

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
237	UM	Sequoia sempervirens	12, 6.5	25	F-P	F	-	N	NI	>20	
238	UM	Sequoia sempervirens	17.5	25	F	F-P	-	N	NI	>20	
239	UM	Sequoia sempervirens	9, 4	30	G	G	-	N	NI	>20	
240	UM	Quercus agrifolia	10	20	G	G	-	N	NI	>20	
241	UM	Quercus agrifolia	12	25	F	G	-	N	NI	>20	Breakouts, Wounds
242	UM	Quercus agrifolia	3	10	F-G	F	-	N	NI	>20	Shaded
243	UM	Quercus agrifolia	13	20	F-P	G	-	N	NI	>20	РР
244	UM	Quercus agrifolia	7.5	20	G	G	-	N	NI	>20	
245	UM	Quercus agrifolia	7	10	G	G	-	N	NI	>20	CD
246	UM	Quercus agrifolia	5	10	Р	F-P	-	N	NI	>20	PP, Headed
247	UM	Quercus agrifolia	6.5	15	G	G	-	N	NI	>20	CD
248	UM	Pseudotsuga menziesii	15	15	G	G	-	N	NI	>20	
249	UM	Quercus agrifolia	3.5	10	G	G	-	N	NI	>20	Shaded
250	UM	Quercus agrifolia	6, 6.5	15	F	F	-	N	NI	>20	
251	UM	Quercus agrifolia	10	15	G	G	-	N	NI	>20	

Tag#	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
252	UM	Quercus agrifolia	13	10	G	F-G	-	N	NI	>20	
253	UM	Quercus agrifolia	5	10	G	F	-	N	NI	>20	Shaded
254	UM	Quercus agrifolia	2	10	G	F	-	N	NI	>20	Poison Oak in canopy
255	UM	Quercus agrifolia	9.5	15	G	G	-	N	NI	>20	CD
256	UM	Pseudotsuga menziesii	25	40	F	F	-	N	NI	>20	Multi-top
257	UM	Quercus agrifolia	8	15	F	F	-	N	NI	>20	Significant lean
258	UM	Quercus agrifolia	10.5	20	F	F	-	N	NI	>20	Lean, In canopy of fir and pine
259	UM	Pinus ponderosa	20.5	25	Р	F-P	SP1	N	NI	>20	Dead pine adjacent, Pruning to address CDEB
260	UM	Quercus agrifolia	21.5	30	F	G	DW	N	NI	>20	PP, Nice tree
261	UM	Quercus agrifolia	20	40	F-G	F-G	DW	N	NI	>20	Significant lean
262	UM	Salix lasiolepis	11, 9, 4.5, 7.5	20	F-P	F	-	N	NI	<20	Falling into pond, Significant lean over pond
263	UM	Quercus agrifolia	17.5	25	F-G	G	EWR	N	NI	>20	Lean over pond, CD
264	UM	Quercus agrifolia	3, 2	10	F	F	-	N	NI	>20	Under canopy
265	UM	Quercus agrifolia	4, 1.5, 2	15	F	F	SP1	N	NI	>20	Under canopy
266	UM	Quercus agrifolia	8.5	25	G	G	-	N	NI	>20	Slight lean

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
267	UM	Quercus agrifolia	16, 6.5, 11, 3.5	40	G	G	DW	N	NI	>20	Nice tree
268	UM	Pseudotsuga menziesii	16.5, 15, 12	50	F	Р	DW	N	NI	<20	CD, Tip dieback
269	UM	Sequoia sempervirens	24	45	F	P-D	R?	N	NI	<5	
270	UM	Quercus agrifolia	3.5, 3.5	5	Р	G	SP1	N	NI	>20	Pruning to address CDEB, Growing in fir
271	UM	Quercus agrifolia	2, 1.5, 2.5	10	F	G	SP1	N	NI	>20	Pruning to address first permanent branch and CD
272	UM	Quercus agrifolia	4, 3	15	Р	G	SP1	N	NI	>20	Pruning to address CDEB
273	UM	Schinus molle	21, 12, 6.5	40	G	F	-	N	NI	>20	Breakout
274	UM	Quercus agrifolia	1.5, 2	5	Р	G	SP1	N	NI	>20	CDEB
275	UM	Quercus agrifolia	9.5	15	G	G	-	N	NI	>20	CD, Lean
276	UM	Quercus agrifolia	1, 1	10	F	G	SP1	N	NI	>20	
277	UM	Calocedrus decurrens	8, 11	15	Р	F-P	SP1, DW	N	NI	<20	CDEB
278	UM	Quercus agrifolia	3	10	G	G	-	N	NI	>20	Crowded, Select one of three to remain
279	UM	Quercus agrifolia	5	10	F-P	G	SP1	N	NI	>20	Crowded, Select one of three to remain
280	UM	Quercus agrifolia	2, 5	10	Р	G	SP1	N	NI	>20	Crowded, Select one of three to remain
281	UM	Quercus agrifolia	6	15	G	G	SP1	N	NI	>20	CD, PP

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
282	UM	Quercus agrifolia	6.5	15	F	G	DW	N	NI	>20	PP, Under Grey Pine canopy
283	UM	Quercus agrifolia	5, 6.5, 5	45	Р	G	SP1	N	NI	>20	Growing in pine, CDEB, EB
284	UM	Quercus agrifolia	2, 3	10	F	G	-	N	NI	>20	Under pine, CD
285	UM	Quercus agrifolia	3.5, 3, 2	10	Р	G	SP1	N	NI	>20	Under pine, CDEB, EB
286	UM	Quercus agrifolia	3 @2"	10	Р	F	SP1	N	NI	>20	Under pine, CDEB
287	UM	Quercus agrifolia	2.5, 1, 1	10	F	F	-	N	NI	>20	Under pine
288	UM	Quercus agrifolia	8.5	15	G	F	-	N	NI	>20	Under pine, CD
289	UM	Pinus sabiniana	35	50	F	F	DW	N	NI	<20	CD
290	UM	Quercus agrifolia	2.5	10	F	G	SP1	N	NI	>20	PP, Under Grey Pine canopy, Crowded
291	UM	Quercus agrifolia	7.5	15	G	G	DW	N	NI	>20	PP
292	UM	Quercus agrifolia	2, 4	15	F-G	G	-	N	NI	>20	CD
293	UM	Quercus agrifolia	9, 12, 7, 8	30	Р	G	EWR1, SP1	N	NI	>20	EWR on EB lateral branch
294	UM	Prunus amygdalus	4, 6	10	Р	P-D	R	N	NI	<5	Almost dead
295	UM	Quercus agrifolia	3.5	10	F	G	-	N	NI	>20	Growing directly on pine, CD
296	UM	Pinus sabiniana	39	60	F-P	F-P	DW	N	NI	<20	

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
297	UM	Quercus agrifolia	4, 4.5	15	F	F-G	SP1	N	NI	>20	Under Grey Pine canopy, CD
298	UM	Quercus agrifolia	7.5	25	F	G	-	N	NI	>20	PP, Flush cut, Lean
299	UM	Quercus agrifolia	3, 3.5	10	F-G	F	-	N	NI	>20	PP
300	UM	Quercus agrifolia	6, 4.5	4	Р	G	-	N	NI	>20	CDEB, Lean, PP, Under Grey Pine canopy
301	UM	Quercus agrifolia	6, 6	25	F	G	-	N	NI	>20	CD, Under Grey Pine canopy
302	UM	Acacia longifolia	5, 4.5	25	Р	G	-	N	NI	>20	Significent lean, ID, PP
303	UM	Acacia longifolia	5	15	F-P	G	-	N	NI	>20	Significant lean, PP
304	UM	Cedrus deodara	25	35	F-G	F-G	DW	N	NI	>20	PP
305	UM	Salix babylonica	33.5	30	Р	F-P	DW	N	NI	<20	Branch tip dieback, Breakouts, Significantly reduced, EB, Not a long term tree
306	UM	Pinus coulteri	26	40	Р	Р	DW	N	NI	>20	lvy was taking over, but has now been dealt with, Slight lean, CDEB, Adjacent tree removed and was the reason for unbalanced canopy
307	UM	Pinus coulteri	25.5	35	G	F-G	DW	N	NI	>20	Good tree, Minor DW removal needed
308	UM	Salix babylonica	14.5	30	Р	F-G	R	N	NI	<20	H, ID, Large breakout, Not a long term tree
309	С	Acer palmatum	4" @1'	10	F-P	F	-	N	I	<20	Circling roots, Dysfunctional root system

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
310	С	Acer palmatum	4.5	10	F-P	F	-	N	ı	<20	Circling roots, Dysfunctional root system, Two more adjacent maples, 4 maples in containers
311	С	Schinus molle	29	50	F	G	EWR	Υ	NI	>20	Minor ID, PP, Lion's tailed, Nice tree
312	ОМ	Platanus x hispanica 'Yarwood'	6	20	G	F-G	SP	N	ı	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable
313	ОМ	Platanus x hispanica 'Yarwood'	5.5	20	G	F-G	SP	N	- 1	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable
314	ОМ	Platanus x hispanica 'Yarwood'	6	24	G	F-G	SP	N	ı	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable
315	ОМ	Platanus x hispanica 'Yarwood'	5.5	20	G	F	SP	N	ı	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable
316	ОМ	Platanus x hispanica 'Yarwood'	5.5	20	G	F	SP	N	ı	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable
317	ОМ	Platanus x hispanica 'Yarwood'	5	15	G	F	SP	N	ı	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable, Circling roots
318	ОМ	Platanus x hispanica 'Yarwood'	5	15	G	F	SP	N	I	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable, Circling roots
319	ОМ	Platanus x hispanica 'Yarwood'	5	15	G	F	SP	N	ı	>20	Planted too low, 8"-12" below grade, Too much water, Transplantable
320	С	Platanus x hispanica 'Yarwood'	5	12	G	F-G	SP	N	?	>20	Unable to inspect root zone due to metal grate, Transplantable

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
321	С	Platanus x hispanica 'Yarwood'	5.5	15	G	F-G	SP	N	Ş	>20	Unable to inspect root zone due to metal grate, Transplantable
322	С	Platanus x hispanica 'Yarwood'	4.5	10	F-P	F	SP	N	?	<20	Unable to inspect root zone due to metal grate but dysfunctional roots suspected
323	С	Platanus x hispanica 'Yarwood'	5	15	G	G	SP	N	?	>20	Unable to inspect root zone due to metal grate, Lean, Transplantable
324	ОМ	Platanus x hispanica 'Yarwood'	6.5	20	G	G	SP	N	I	>20	Planted too low, Transplantable
325	ОМ	Platanus x hispanica 'Yarwood'	5.5	12	G	F-G	SP	N	I	>20	Planted too low, Transplantable
326	UM	Quercus agrifolia	18	40	Р	F	SP, MM	N	NI	>20	1/2 of tree has sparce foliage, Leasions on bark indicate root disease?, CDEB, Mitigate soil compaction
327	UM	Pinus halepensis	28.5	35	F	F	DW	N	NI	>20	Fiber buckling, CD, A little off color
328	UM	Pinus halepensis	27.5, 25.5	50	F	G	DW	N	NI	>20	CD, Lean, Coast Live Oak understory
329	UM	Pinus halepensis	26	35	F-G	G	DW	N	NI	>20	CD top, Small Allepo adjacent
330	UM	Olea europaea	7, 6.5, 8.5, 7	20	F-P	F-P	DW	N	NI	>20	Breakouts, Dieback, Suckers, CD and split, Came up as seedling?
331	UM	Olea europaea	9, 5, 7	20	F	F	-	N	NI	>20	PP
332	UM	Olea europaea	8.5, 14, 7.5	25	F	F	EWR1	N	NI	>20	Breakout, Dieback, PP

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
333	UM	Olea europaea	3.5, 6	10	Р	Р	R	N	NI	<5	Lean, Not viable
334	UM	Olea europaea	8	20	F	F-G	EWR1	N	NI	>20	Suckers, ID, Lean
335	UM	Olea europaea	5.5, 6.5	20	F-P	F-G	EWR1	N	NI	>20	Suckers, Significant lean, Dieback
336	UM	Olea europaea	7	15	F	F-P	-	N	NI	>20	Suckers, Tip dieback
337	UM	Olea europaea	9.5	20	F	F-P	-	N	NI	>20	Tip dieback, Suckers
338	UM	Olea europaea	12	30	F-G	G	EWR1	N	NI	>20	Suckers!
339	UM	Olea europaea	9	30	F-G	F	-	N	NI	>20	Suckers!
340	UM	Prunus cerasifera	6, 4, 3, 7.5	25	Р	F	SP	N	NI	<20	Root stock suckers, EB, Multi, SP to control suckering
341	UM	Prunus cerasifera	6.5, 5.5, 3	20	F	F	SP	N	NI	<20	Lean, Multi, Root stock suckers, SP to control suckering
342	UM	Olea europaea	18, 3.5	30	F-G	G	EWR	N	NI	>20	Suckers, CD, No pruning damage
343	UM	Eucalyptus camaldulensis	23.5	35	G	F	-	N	NI	>20	Need seeds to properly identify, Low live crown ratio (sparce foliage)
344	UM	Magnolia soulangeana	5.5	10	Р	Р	-	N	NI	<20	2nd stem split
345	UM	Eucalyptus globulus	23	35	F	Р	MM	N	NI	<20	Die dieback, Tortise shell beetle
346	UM	Eucalyptus globulus	41	65	F	F	DW, SI	N	NI	>20	Fungal conk at base

Tag#	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
401	UM	Olea europaea	5, 9, 8	30	F	G	-	N	NI	>20	CDEB, ID, Breakouts
402	UM	Olea europaea	3, 6	20	F-P	G	-	N	NI	>20	ID, Suckers
403	UM	Olea europaea	8.5, 8	30	G	G	-	N	NI	>20	Breakouts
404	UM	Olea europaea	9, 10.5, 9.5	30	Р	Р	-	N	NI	>20	ID, EB, Tip dieback, Sparce foilage, Suckers
405	UM	Olea europaea	11.5, 12.5	45	F	F	-	N	NI	>20	CD, Breakouts, one limb gone
406	UM	Olea europaea	20.5	20	Р	G	-	N	NI	>20	Terminal breakout, ID, Breakouts
407	UM	Ulmus procera	47.5	50	Р	G	SI1	N	NI	<20	Extensive ID, Breakouts, Extensive, Recommend removal without full safety inspection
408	UM	Olea europaea	7, 7, 8.5	30	G	F-G	EWR1	N	NI	>20	PP, Flush cuts, Suckers
409	UM	Olea europaea	18	20	F-P	F-P	-	N	NI	>20	Multiple breakouts, Hollow, Lean, Suckers
410	UM	Olea europaea	25.5	35	F-P	G	EWR1	N	NI	>20	CD, Hollow, Large breakout, PP
411	UM	Olea europaea	23	30	Р	F	-	N	NI	>20	PP, Headed, CD
412	UM	Olea europaea	11.5, 9, 11	35	F	G	EWR1	N	NI	>20	PP, Suckers
413	UM	Cupressus sempervirens	22.5	30	G	G	-	N	NI	>20	Slight lean, Old tag #74
414	UM	Olea europaea	8	20	F	F-G	SP1	N	NI	>20	CD

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
415	UM	Olea europaea	28	35	F-P	G	EWR1	N	NI	>20	Multiple breakouts, PP!, ID, CD
416	UM	Olea europaea	10, 17	35	F	G	-	N	NI	>20	CD, PP, EB
417	UM	Olea europaea	24.5	30	Р	F	-	N	NI	>20	Major dieback on limb facing path, Breakouts, CD, PP!, 3 major limbs missing
418	UM	Olea europaea	13, 12.5	25	F	G	-	N	NI	>20	CD, Suckers, Breakouts
419	UM	Calocedrus decurrens	42	35	F-G	F	DW, SP	N	NI	>20	CD top
420	UM	Cinnamomum camphora	27.5	45	F	F	EWR1, DW	N	NI	>20	Monitor dieback, Most likely in drought stress and suffering from soil compaction
421	UM	Cinnamomum camphora	8	25	G	F-P	DW, SP	N	NI	>20	Monitor dieback, Most likely in drought stress and suffering from soil compaction
422	UM	Pistacia chinensis	8	30	G	G	-	N	NI	>20	PP, Flush cut
423	UM	Liquidambar styraciflua	5	10	F	F	SP	N	NI	>20	Prune to address EB
424	UM	Olea europaea	14, 18	45	F-P	F	-	N	NI	>20	PP, Headed, Flushcuts, CD
425	UM	Olea europaea	15, 9.5	25	F-P	F	-	N	NI	>20	Large pruning wound
426	UM	Olea europaea	8, 14, 11	30	F	F-P	-	N	NI	>20	PP, Rip cuts, CD
427	UM	Olea europaea	13, 13, 9.5	30	F-P	F	-	N	NI	>20	PP, Headed

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
428	UM	Olea europaea	15	40	F-P	F	-	N	NI	>20	PP, Headed, Large pruning wound
429	UM	Olea europaea	13, 11, 11.5	35	F-P	F	-	N	NI	>20	PP, Headed, CD
430	UM	Olea europaea	8, 12, 12	30	F-P	F	-	N	NI	>20	PP, Headed, CD
431	UM	Olea europaea	8, 20	30	F-P	F	-	N	NI	>20	Headed
432	UM	Olea europaea	11, 11, 11.5	30	F	F-G	-	N	NI	>20	PP, Breakouts
433	UM	Olea europaea	12	25	F	F	-	N	NI	>20	PP, Headed, CD
434	UM	Olea europaea	11, 13, 7, 12	30	F-P	G	-	N	NI	>20	PP, Headed
435	UM	Olea europaea	18	25	Р	F-P	-	N	NI	>20	PP, Major breakout, ID
436	MU	Olea europaea	8.5, 11, 14, 7	35	F	F	-	N	NI	>20	PP
437	UM	Olea europaea	18.5	30	F	F	-	N	NI	>20	PP
438	UM	Olea europaea	10.5, 10.5, 11	35	Р	G	-	N	NI	>20	PP, Headed, EB, Large breakout, Suckers
439	UM	Olea europaea	12, 16	40	Р	F-G	-	N	NI	>20	PP! Flush cut! Suckers
440	UM	Olea europaea	9	25	Р	G	-	N	NI	>20	Lean, Large breakout 1/2 of the tree, Suckers
441	UM	Olea europaea	12.5, 14.5	40	F-P	G	-	N	NI	>20	PP, Headed, Flushcuts, CD, Suckers
442	UM	Olea europaea	12	20	Р	G	-	N	NI	>20	ID, See through the tree at base, PP, Flush cuts

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
443	UM	Olea europaea	11, 11, 7.5	45	F	G	-	N	NI	>20	PP, Flushcut, CD
444	UM	Olea europaea	10.5, 18, 7	30	F	G	-	N	NI	>20	PP, Headed
445	UM	Olea europaea	14.5, 11	45	F	G	1	N	NI	>20	Hollow, PP, CD
446	UM	Olea europaea	11, 17	40	F	G	-	N	NI	>20	PP, Flushcut, Lean, CD
447	UM	Olea europaea	17, 18	35	F	F	-	N	NI	>20	PP, Breakouts
448	UM	Olea europaea	10.5	24	F	F	-	N	NI	>20	PP, Flushcut, CD
449	UM	Olea europaea	19	30	F-P	F	-	N	NI	>20	PP, Headed, Major limb lost
450	UM	Olea europaea	14, 11	35	Р	F	-	N	NI	>20	PP, Large flushcut, Breakouts, CD
451	UM	Olea europaea	15, 10	35	Р	F	-	N	NI	>20	PP, Headed, Large flushcut, CD
452	UM	Olea europaea	15, 15.5	35	Р	G	EWR1	N	NI	>20	PP, Headed!, Breakouts, CD, Suckers
453	UM	Olea europaea	11, 10	40	Р	Р	-	N	NI	>20	PP, Headed, Large breakout, Suckers
454	UM	Olea europaea	19	30	Р	F-G	-	N	NI	>20	Breakouts, suckers
455	UM	Olea europaea	21.5	35	F	G	-	N	NI	>20	Breakout
456	UM	Olea europaea	9, 13, 9.5	30	F	G	-	N	NI	>20	PP, Suckers
457	UM	Olea europaea	17	35	F-P	F-G	-	N	NI	>20	Recent large breakouts, Suckers

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
458	UM	Olea europaea	20.5	35	F	G	-	N	NI	>20	ID, Breakout, Suckers
459	UM	Olea europaea	17.5	30	F	F-G	-	N	NI	>20	EB breakout, Suckers
460	UM	Olea europaea	7, 6, 7.5, 10	35	F	F-G	-	N	NI	>20	PP, Breakouts, Headed, Suckers
461	UM	Olea europaea	12, 12	45	F-P	F-G	-	N	NI	>20	Large pruning wound, Suckers
462	UM	Olea europaea	10, 19	40	F	F-G	-	N	NI	>20	PP, Breakouts, Suckers
463	UM	Olea europaea	11	15	Р	G	-	N	NI	>20	1/2 tree gone, PP, Suckers
464	UM	Olea europaea	24	30	F-P	G	EWR	N	NI	>20	PP, Suckers
465	UM	Olea europaea	9.5, 12	35	Р	F	-	N	NI	>20	Basal decay on 1/2 of tree, Bleeding leasons, Possible root disease?, Suckers
466	UM	Olea europaea	24	25	F-P	F-G	-	N	NI	>20	CDEB, Suckers
467	UM	Olea europaea	12.5	45	F-P	F-G	-	N	NI	>20	PP, Flushcut, suckers, Multiple breakouts, Suckers
468	UM	Olea europaea	13, 16	40	F-P	G	-	N	NI	>20	PP, Headed, Breakouts, Suckers
469	UM	Olea europaea	8, 9.5, 13, 12	25	F-P	F	-	N	NI	>20	PP, Flushcuts, PP, Breakouts
470	UM	Olea europaea	7, 9, 10, 11, 5.5	30	Р	F-G	-	N	NI	>20	PP, Headed, Flushcuts
471	UM	Olea europaea	11, 14.5	30	F-P	F	-	N	NI	>20	PP, Lean, Multiple breakouts, Suckers

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
472	UM	Olea europaea	22	30	Р	G	-	N	NI	>20	PP, Headed, Suckers
473	UM	Olea europaea	13.5	30	F-P	G	-	N	NI	>20	Two large pruning wounds, Breakouts, Suckers
474	UM	Olea europaea	21	25	F-P	F-G	-	N	NI	>20	PP, Headed, CD
475	UM	Olea europaea	21	25	F-P	F	-	N	NI	>20	PP, Headed, Suckers
476	UM	Olea europaea	24	30	F-P	F	-	N	NI	>20	Hazard beam fracture, PP, Flushcut
477	UM	Olea europaea	25.5	30	F	G	EWR1	N	NI	>20	PP, Headed, Breakouts, Suckers
478	UM	Olea europaea	10.5, 9, 13	30	F-P	F-G	EWR1	N	NI	>20	PP, Flushcut, Headed, Suckers
479	UM	Olea europaea	21, 12	30	F-P	G	EWR1	N	NI	>20	PP, Flushcut, 2 breakouts, Suckers
480	UM	Olea europaea	16.5	30	F-P	G	EWR1	N	NI	>20	2 large pruning wounds, Breakout, Headed
481	UM	Olea europaea	26	30	F-P	G	EWR1	N	NI	>20	PP, CD
482	UM	Olea europaea	18, 20	45	F-P	G	EWR1	N	NI	>20	PP, Headed, Breakouts, CD
483	UM	Olea europaea	24	35	F-P	F-G	EWR1	N	NI	>20	Large pruning wound, Breakout
484	UM	Olea europaea	21.5	30	F-P	F	-	N	NI	>20	PP, Headed, Breakouts
485	UM	Olea europaea	18	20	Р	F	-	N	NI	>20	3 large flushcuts

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
486	UM	Olea europaea	12.5, 16.5	30	F-P	F-G	EWR1	N	NI	>20	3 large breakouts, CD
487	UM	Olea europaea	24	30	F-P	G	EWR1	N	NI	>20	PP, Flushcuts, Headed, CD, Breakouts
488	UM	Olea europaea	20, 15	30	Р	F	EWR1	N	NI	>20	PP, Headed, CD
489	UM	Olea europaea	22.5	15	Р	G	EWR1	N	NI	>20	Bleeding lesion, Suckers!, EB, Multiple terminal breakouts
490	UM	Olea europaea	14	30	F-P	F-G	EWR1	N	NI	>20	Headed
491	UM	Olea europaea	11, 15, 16.5	30	Р	F-G	-	N	NI	>20	3 large breakouts, Large pruning wound
492	UM	Olea europaea	16, 15	30	Р	G	EWR1	N	NI	>20	2 major breakouts, CD, Hollow, Bee Hive!
493	UM	Olea europaea	8, 5, 9, 6.5	30	F	F-P	-	N	NI	>20	PP
494	UM	Olea europaea	19	35	F-P	G	EWR1	N	NI	>20	PP, Ground squirrel near base
495	UM	Olea europaea	26	30	Р	G	EWR1	N	NI	>20	2 large breakouts, Flushcut, CD
496	UM	Olea europaea	12	20	F	F	-	N	NI	>20	Suckers
497	UM	Olea europaea	12	30	F-P	G	EWR1	N	NI	>20	Headed, Breakout
498	Um	Olea europaea	13, 10, 13, 17.5	60	F	G	EWR1	N	NI	>20	Breakouts
499	UM	Schinus molle	38	45	F	G	-	N	NI	>20	Hollow, Lean, Nice tree

Tag #	Site Type	Species	DBH	Spread	Structure	Health	Maintenance Priority	Sidewalk Damage	Site Conditions	Useful Lifespan	Notes
500	UM	Olea europaea	8, 9, 8, 9	30	F-G	G	EWR1	N	NI	>20	Breakouts, Suckers, Has not been poorly pruned
501	UM	Olea europaea	22.5	30	Р	G	EWR1	N	NI	>20	Large basal breakout, Multiple breakouts, Suckers, CD
502	UM	Olea europaea	21	35	Р	F	-	N	NI	>20	PP, Flushcut, Headed, EB, Multiple breakouts
503	UM	Olea europaea	12.5, 14.5	30	F-P	F-G	-	N	NI	>20	CD, Flushcut, Breakouts, Suckers
504	UM	Olea europaea	11, 16.5	40	F-P	F-G	-	N	NI	>20	PP, Flushcut, Headed, Breakouts, Suckers
505	UM	Olea europaea	23	85	F-P	G	EWR1	N	NI	>20	1/2 tree gone, Ring swelling/kinked wood fibres indicates symmetrical zone of ID
506	UM	Olea europaea	8, 8.5, 8	35	F-G	G	EWR1	N	NI	>20	PP, Breakouts, Suckers
507	UM	Olea europaea	4.5, 8.5	30	F-G	F-G	EWR1	N	NI	>20	Suckers

Ohlone College Palm Survey Data

COLUMN HEADING TITLES

- Number assigned to each tree on supplemental location map

Species - Scientific name

Clear Trunk - Distance from soil grade to the first living fronds, in feet

Structure- Tree Structural Safety: E is Excellent, G is Good, F is Fair, P is Poor, H is Hazardous

Health -Tree Health: E is Excellent, G is Good, F is Fair, P is Poor, D is Dead or Dying

Suitability for Transplant - G is Suitable, F is Questionably Suitable, P is Poorly Suitable

Notes - See below

ABBREVIATIONS AND DEFINITIONS

Penciling - Trunk selections of varying diameter ("hour-glass") or small diameter below the terminal bud ("penciling").

PP - Poor Pruning, a trunk with wounds from mechanical impacts or incorrect pruning.

#	Species	Common Name	Clear Trunk	Structure	Health	Suitability for Transplant	Notes
1	Phoenix canariensis	Canary Island Date Palm	50	G	G	F	No flaws, but possibly too big for transplant
2	Phoenix canariensis	Canary Island Date Palm	50	F	G	Р	Trunk damage, PP
3	Phoenix canariensis	Canary Island Date Palm	45	F	F	Р	рр
4	Phoenix dactylifera	Date Palm	38	P-H	Р	Р	Penciling, Large chunk missing on side of trunk, Major dieback
5	Phoenix canariensis	Canary Island Date Palm	45	F-P	G	Р	Trunk damage, Decay pocket, PP
6	Phoenix dactylifera	Date Palm	38	G	F	Р	Small: 13" diameter, Water stressed?
7	Washingtonia robusta	Mexican Fan Palm	80	F	F	Р	Too tall for transplant
8	Phoenix canariensis	Canary Island Date Palm	65	G	G	Р	Too tall for transplant

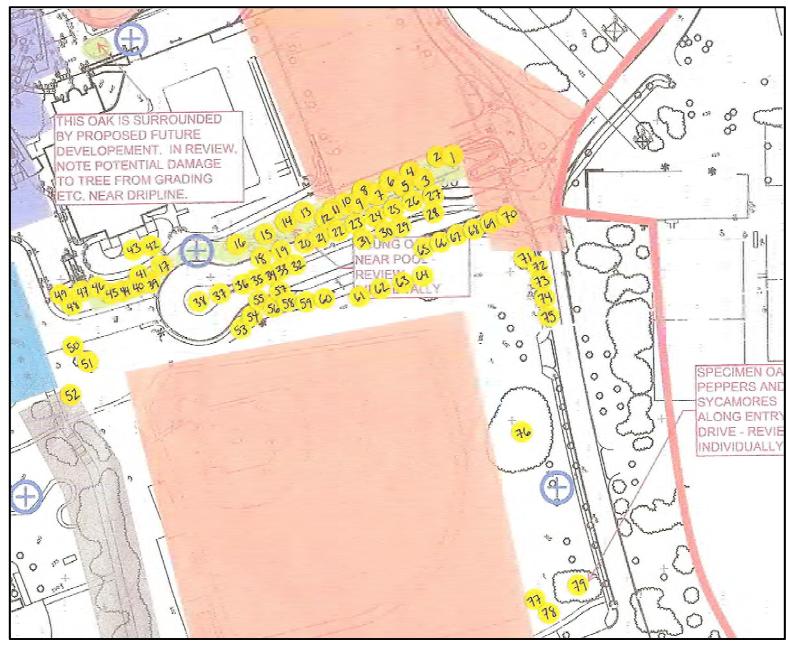
#	Species	Common Name	Clear Trunk	Structure	Health	Suitability for Transplant	Notes
9	Phoenix canariensis	Canary Island Date Palm	45	G	G	F	PP, but not bad
10	Phoenix canariensis	Canary Island Date Palm	55	F	G	Р	Lean, PP, Decay pocket
11	Phoenix canariensis	Canary Island Date Palm	20	G	G	F	Minor PP, but not bad
12	Phoenix canariensis	Canary Island Date Palm	2	G	G	G	Never trimmed
13	Phoenix canariensis	Canary Island Date Palm	4	G	G	G	Small adjacent Washingtonias, Never been trimmed
14	Phoenix canariensis	Canary Island Date Palm	6	G	G	G	Never trimmed
15	Washingtonia robusta	Mexican Fan Palm	12	G	G	G	Never trimmed
16	Washingtonia robusta	Mexican Fan Palm	3	G	G	G	Never trimmed
17	Phoenix canariensis	Canary Island Date Palm	15	G	G	G	Never trimmed
18	Washingtonia robusta	Mexican Fan Palm	10	G	G	F-P	Against fence, Never trimmed
19	Washingtonia robusta	Mexican Fan Palm	10	G	G	F-P	Against fence, Never trimmed
20	Washingtonia robusta	Mexican Fan Palm	6	G	G	G	Never trimmed
21	Washingtonia robusta	Mexican Fan Palm	15	G	G	G	Never trimmed
22	Phoenix canariensis	Canary Island Date Palm	20	G	G	F-P	Hard to reach, Never trimmed
23	Phoenix canariensis	Canary Island Date Palm	6	G	G	Р	Hard to reach, Never trimmed

#	Species	Common Name	Clear Trunk	Structure	Health	Suitability for Transplant	Notes
24	Washingtonia robusta	Mexican Fan Palm	10	G	G	G	Never trimmed
25	Phoenix canariensis	Canary Island Date Palm	0	G	G	G	Young tree, Never trimmed
26	Phoenix canariensis	Canary Island Date Palm	0	G	G	G	Never trimmed
27	Phoenix canariensis	Canary Island Date Palm	4	G	G	G	Never trimmed
28	Phoenix canariensis	Canary Island Date Palm	2	G	G	G	Never trimmed
29	Phoenix canariensis	Canary Island Date Palm	25	F	G	Р	PP, Penciling
30	Phoenix canariensis	Canary Island Date Palm	25	F	G	Р	PP
31	Washingtonia robusta	Mexican Fan Palm	10	G	G	G	Small adjacent <i>P. canariensis</i> , Never trimmed
32	Phoenix canariensis	Canary Island Date Palm	12	G	G	F	No pruning damage, On slope w slight lean
33	Phoenix canariensis	Canary Island Date Palm	0	G	F	F	Directly adjacent to pond, Off color (maybe too much water)
34	Phoenix canariensis	Canary Island Date Palm	0	G	G	G	Never trimmed
35	Phoenix canariensis	Canary Island Date Palm	0	G	G	G	Never trimmed
36	Phoenix canariensis	Canary Island Date Palm	0	G	G	F	Hard to reach, Never trimmed
37	Phoenix canariensis	Canary Island Date Palm	0	G	G	F	Hard to reach, Never trimmed
38	Phoenix canariensis	Canary Island Date Palm	0	G	G	F	Hard to reach, Never trimmed

#	Species	Common Name	Clear Trunk	Structure	Health	Suitability for Transplant	Notes
39	Phoenix canariensis	Canary Island Date Palm	0	G	G	F	Hard to reach, Never trimmed
40	Phoenix canariensis	Canary Island Date Palm	0	G	G	F	Hard to reach, Never trimmed
41	Phoenix canariensis	Canary Island Date Palm	0	G	G	F	Hard to reach, Never trimmed
42	Phoenix canariensis	Canary Island Date Palm	8	G	G	F	Hard to reach, Never trimmed
43	Washingtonia robusta	Mexican Fan Palm	2	G	F	F	Small, Water stressed
44	Washingtonia robusta	Mexican Fan Palm	6	G	G	G	
45	Washingtonia robusta	Mexican Fan Palm	2	G	G	G	Small
46	Phoenix canariensis	Canary Island Date Palm	2	G	F	F	Remove dangerous spines, Base on pavement
47	Washingtonia robusta	Mexican Fan Palm	10	G	G	G	
48	Washingtonia robusta	Mexican Fan Palm	2	G	G	G	Three trees
49	Phoenix canariensis	Canary Island Date Palm	40	F	G	Р	PP but not bad
50	Phoenix canariensis	Canary Island Date Palm	30	Р	G	Р	Trunk damage, PP
51	Phoenix canariensis	Canary Island Date Palm	35	F	G	Р	Penciling
52	Phoenix canariensis	Canary Island Date Palm	40	F	G	Р	PP but not bad, Trunk damage
53	Phoenix canariensis	Canary Island Date Palm	42	F	G	Р	Eucalyptus growing in head

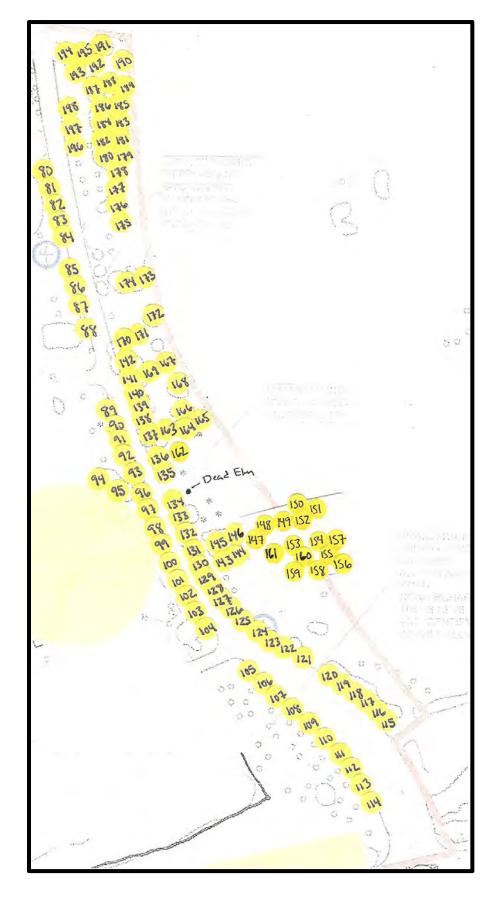
#	Species	Common Name	Clear Trunk	Structure	Health	Suitability for Transplant	Notes
54	Phoenix canariensis	Canary Island Date Palm	40	Р	G	Р	PP, Penciling, Trunk damage
55	Phoenix canariensis	Canary Island Date Palm	45	F-P	G	Р	Penciling, Wounds at base
56	Phoenix canariensis	Canary Island Date Palm	50	G	G	F	Too tall for transplant?
57	Phoenix canariensis	Canary Island Date Palm	40	F-P	G	Р	Significant penciling
58	Phoenix canariensis	Canary Island Date Palm	30	F	G	F	Curved trunk
59	Phoenix canariensis	Canary Island Date Palm	30	Н	G	Р	Decay cavity under head, Head ready to fail
60	Phoenix canariensis	Canary Island Date Palm	40	F	G	Р	Penciling
61	Phoenix canariensis	Canary Island Date Palm	50	F	G	Р	Penciling, Animal habitat
62	Phoenix canariensis	Canary Island Date Palm	48	F	G	Р	Penciling, Upper trunk damage
63	Phoenix canariensis	Canary Island Date Palm	35	F	G	Р	Penciling, Sprinkler (water) damage, PP
64	Phoenix canariensis	Canary Island Date Palm	40	Р	G	Р	Sprinkler (water) damage on 1/2 of trunk, Significant penciling
65	Phoenix canariensis	Canary Island Date Palm	42	F-G	G	F	Penciling but not bad
66	Phoenix canariensis	Canary Island Date Palm	40	F	G	Р	Trunk damage, PP, Curved trunk
67	Phoenix canariensis	Canary Island Date Palm	42	F	G	Р	Penciling, Trunk damage, Sprinkler (water) damage
68	Phoenix canariensis	Canary Island Date Palm	40	F	G	Р	Penciling, Curved, Sprinkler (water) damage

#	Species	Common Name	Clear Trunk	Structure	Health	Suitability for Transplant	Notes
69	Phoenix canariensis	Canary Island Date Palm	40	P-H	G	Р	Significant penciling
70	Phoenix canariensis	Canary Island Date Palm	35	Н	G	Р	Significant penciling
71	Phoenix canariensis	Canary Island Date Palm	40	Н	G	Р	Sprinkler (water) damage, Significant penciling
72	Phoenix canariensis	Canary Island Date Palm	42	Р	G	Р	Sprinkler (water) damage, Significant penciling, Trunk damage
73	Phoenix canariensis	Canary Island Date Palm	38	F	G	Р	Sprinkler (water) damage, Penciling, Trunk damage
74	Phoenix canariensis	Canary Island Date Palm	35	Р	G	Р	Penciling, Curved trunk, Sprinker (water) damage



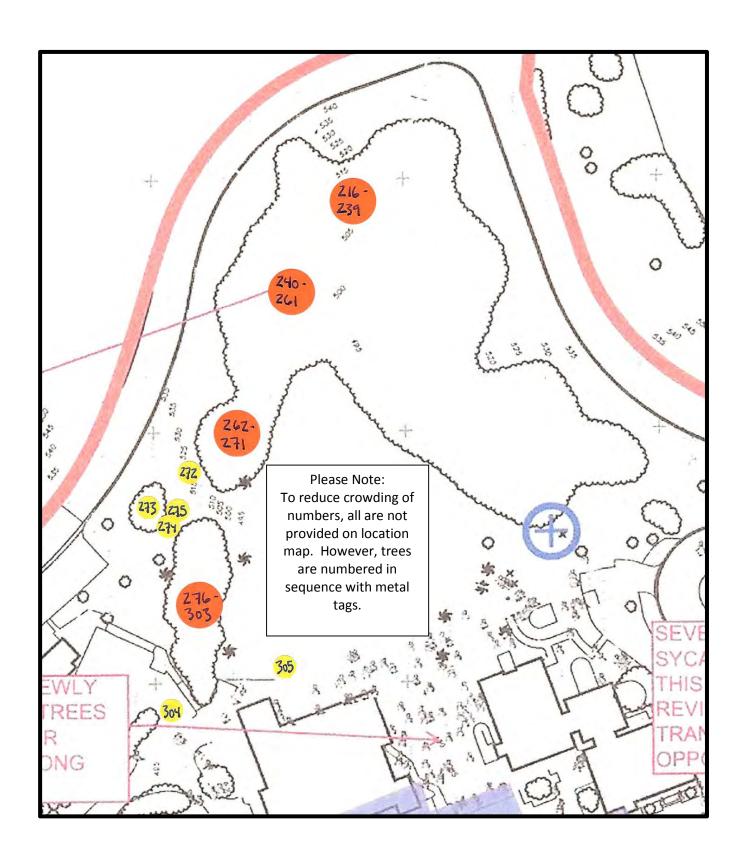
SBCA Tree Consulting 1534 Rose St. Crockett, CA 94525

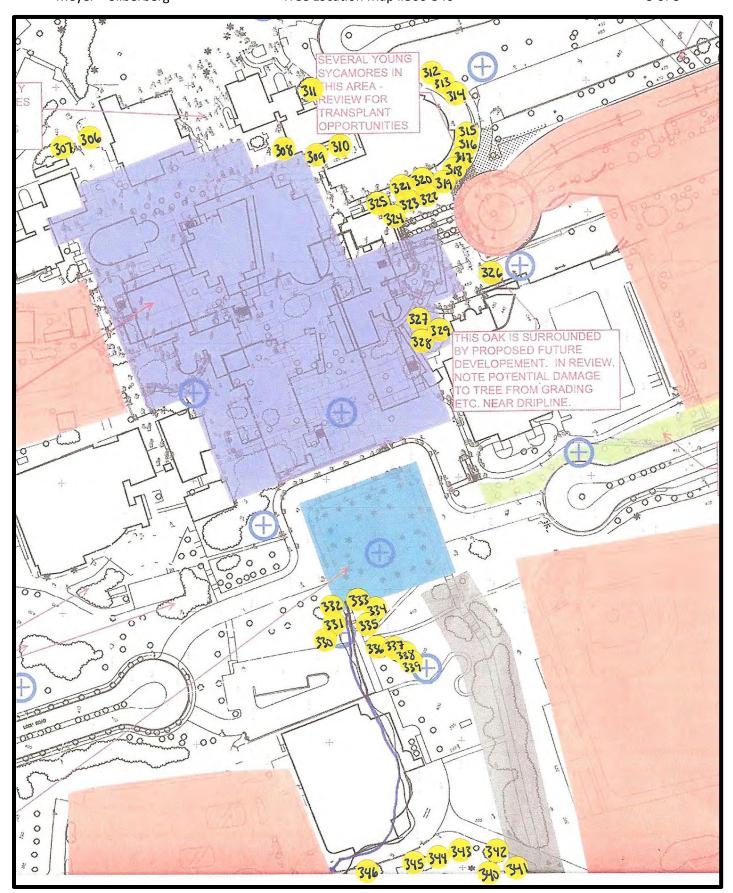




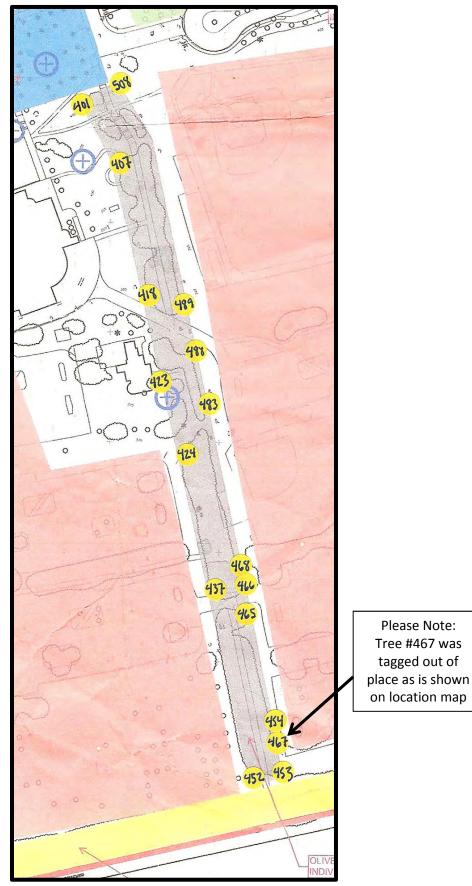


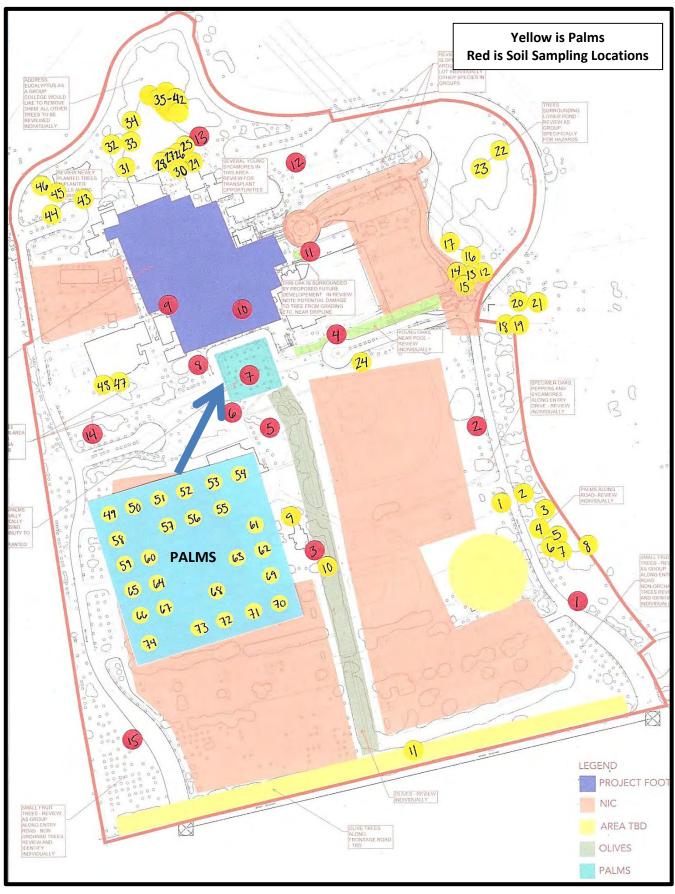


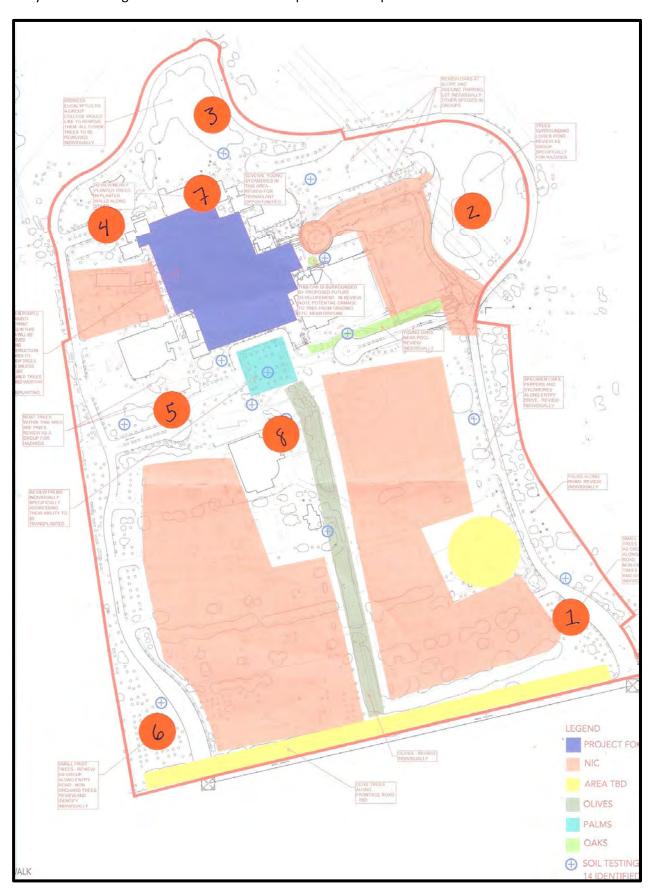




Please Note:
To reduce crowding of numbers, all are not provided on location map. However, trees are numbered in sequence with metal tags.







WALLACE LABORATORIES, LLC

365 Coral Circle El Segundo, CA 90245 phone (310) 615-0116 fax (310) 640-6863

October 22, 2013

steve@sbcatree.com, mollyruthb@gmail.com Stephen Batchelder 1534 Rose Street Crockett, CA 94525

RE: Ohlone College, Mission San Jose

Dear Steve and Molly,

The average pH is modestly alkaline at 7.28. The pH values range from 6.31 in #15 to 7.79 in #10. Samples 8 and 9 contain limestone which induces iron deficiency in iron inefficient or acid-loving plants.

Salinity is modest at 0.47 millimho/cm on average. Salinity ranges from 0.29 millimho/cm in #12 to 0.82 millimho/cm in #8.

Nitrogen is modest on average. Nitrogen is sufficient in samples 2, 5, 14 and 15.

Phosphorus is sufficient on average. Phosphorus is low in samples 6, 7, 8, 9, and 12.

Potassium is sufficient on average. It is low in samples 6, 7, 9, and 12.

The micronutrients are sufficient. The highest concentration of zinc is 20 parts per million in # 10. Copper is excessively high at 36 parts per million in #4. Magnesium is sufficient. Sulfur is low. Total sodium is low. The average SAR (sodium adsorption ratio) is 0.7. The concentrations of non-essential heavy metals are not excessively high.

Recommendations

Sample 4 has excessive copper and should not be used for supporting plant growth.

General soil preparation on a square foot basis. Broadcast the following materials uniformly. The rates are per 1,000 square feet. Incorporate them homogeneously 6 inches deep:

Simplot or Yara calcium ammonium nitrate (27-0-0) – 4 pounds or other pH neutral nitrogen material except 2, 5, 14 and 15

Potassium sulfate (0-0-50) – 8 pounds for 6, 7, 9, and 12

Triple superphosphate (0-45-0) – 4 pounds for 6, 7, 8, 9, and 12 agricultural gypsum - 15 pounds for all

organic soil amendment - as needed, sufficient for about 3% to 6% organic matter on a dry weight basis

For soil preparation on a volume basis, incorporate homogeneously the following materials into clean soil. Rates are expressed on a cubic yard basis:

Simplot or Yara calcium ammonium nitrate (27-0-0) – 1/4 pound or other pH neutral nitrogen material except 2, 5, 14 and 15

Potassium sulfate (0-0-50) - 1/3 pound for 6, 7, 9, and 12

Triple superphosphate (0-45-0) - 1/4 pound for 6, 7, 8, 9, and 12

agricultural gypsum – 1 pound for all

organic soil amendment - as needed, sufficient for about 3% to 6% organic matter on a dry weight basis

Organic soil amendment

- 1. Humus material shall have an acid-soluble ash content of no less than 6% and no more than 20%. The organic matter content shall be at least 50% on a dry weight basis.
- 2. The pH of the material shall be between 6 and 7.5.
- 3. The salt content shall be less than 10 millimho/cm @ 25° C. (ECe less than 10) in a saturated paste extract.
- 4. Boron content of the saturated extract shall be less than 1.0 part per million.
- 5. Silicon content (acid-insoluble ash) shall be less than 50%.
- 6. Calcium carbonate shall not be present if to be applied on alkaline soils.
- 7. Types of acceptable products are composts, manures, mushroom composts, straw, alfalfa, peat mosses etc. low in salts, low in heavy metals, free from weed seeds, free of pathogens and other deleterious materials.
- 8. Composted wood products are conditionally acceptable [stable humus must be present]. Wood based products are not acceptable which are based on red wood or cedar.
- 9. Sludge-based materials are not acceptable.
- 10. Carbon:nitrogen ratio is less than 25:1.
- 11. The compost shall be aerobic without malodorous presence of decomposition products.
- 12. The maximum particle size shall be 0.5 inch, 80% or more shall pass a No. 4 screen.

Maximum total permissible pollutant concentrations in amendment in parts per million on a dry weight basis:

arsenic	20	copper	150	selenium	30
cadmium	15	lead	100	silver	10
chromium	100	mercury	10	vanadium	200
cobalt	50	molybdenum	20	zinc	200
		nickel	100		

For general site maintenance, apply Simplot or Yara calcium ammonium nitrate (27-0-0) at 4 pounds per 1,000 square feet about once per quarter or other pH neutral nitrogen material such as feather meal, urea (46-0-0) in warm weather, ureaformaldehyde (38-0-0), coated urea, etc. For samples 8 and 9 which contain limestone, ammonium sulfate (21-0-0) can be applied at 5 pounds per 1,000 square feet about once per quarter. Ammonium sulfate (21-0-0) helps to acidify the soil and to slowly reduce amount of limestone.

Monitor the site with periodic soil testing. Adjust the maintenance program as needed.

Correct iron deficiency if it develops with Becker Underwood Sprint 138 Fe or other FeEDDHA chelated iron.

Sincerely,

Garn A. Wallace, Ph. D. GAW:n

Photo Supplement



Photo 1. Photo to the left shows the beginning of the central olive corridor. The trees have been very poorly pruned in the past and require establishment of a two year pruning program to properly re-train trees and address structural problems.

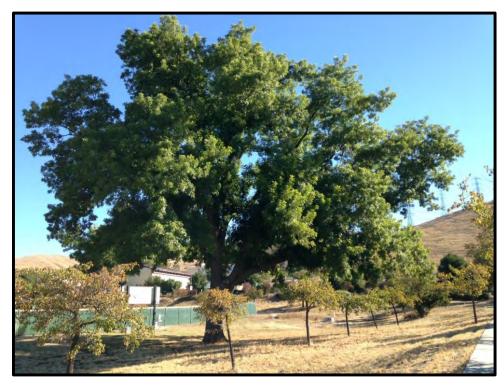


Photo 2. Photo to the left shows is of the pecan tree. The tree most likely is one of the largest in the state. Its value can best be protected by Class 1 pruning to remove end weight on heavy lateral stems to reduce the potential for stem breakage. The root environment likewise must be protected and enhanced if possible.



Photo 3. The Coast Live
Oak tree is the most
represented tree on
campus. The population
is also very young. A
Structural Pruning
program to address poor
branch attachments, first
permanent branches and
dominance would be
extremely beneficial to
see these trees into
maturity.



Photo 4. Two European Elms were tagged on campus and most likely are at the end of their safe and useful life expectancies. The trees were noted with extensive decay. If the trees are to remain, they both require a thorough safety inspection to determine the level of safety pruning necessary. The one pictured to the left appears to be in decline, and may have to be removed regardless.



Photo 5. Fungal conks were noted on the E. camaldulensis growing on the west side of the pool as well as the E. globulus growing by the police station (pictured to the left). Safety inspection is recommended to better understand the extent to which the decay has advanced.



Photo 6. Photo above shows the Grey Pine and redwood by the east pond. The redwoods are not doing well in the location, most likely due to the higher water demands and cooler temperatures preferred by the species. Grey Pines likely received too much water than what is preferred and have entered into early senescence (as displayed by the large cone production).



Photo 7. Photo shows irrigation water hitting the trunks of the palms.



Photo 8. Photo to the left shows the damage caused by irrigation water hitting palm trunks.



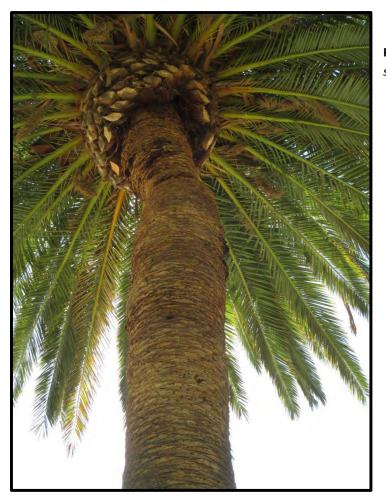


Photo 9. Photo shows a palm in the main square that was noted as hazardous.



Photo 10. Canary Island Palms that have not been pruned, such as the ones pictures to the left, are in good condition for transplanting. However, the many are growing in difficult locations to access.



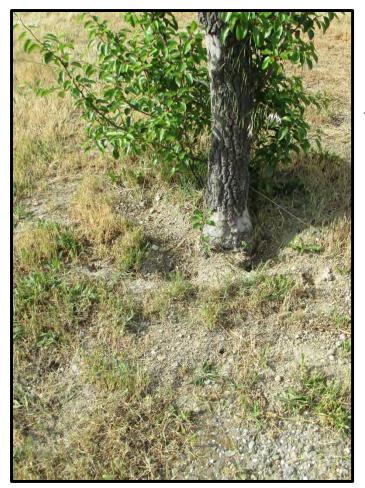


Photo 11. Many Evergreen Pears growing in Groups 1 and 6 have been damaged by moving equipment. The trees are no longer viable for future consideration.



Photo 12. The Group 2 South-East Pond Area serves as a natural area for plants and wildlife. No recommendations have been made, other than leaving the area as is.



Photo 12. Many of the Eucalyptus located in Group 3 near the east pond are in poor condition. It is recommended that all multi-stemmed (and structurally problematic) trees be removed. Others can be pruned for safety.

Photo 13. Photo below is of Group 4. All Crepe Myrtles are doing well. The magnolias are not thriving anywhere on campus and should not be considered for future planting. Other trees noted in the area include Aleppo Pine, Monterey Pine, Coast Live Oak and Jacaranda. Three Jacaranda are dead, most likely due to too much or too little water during their establishment phase.

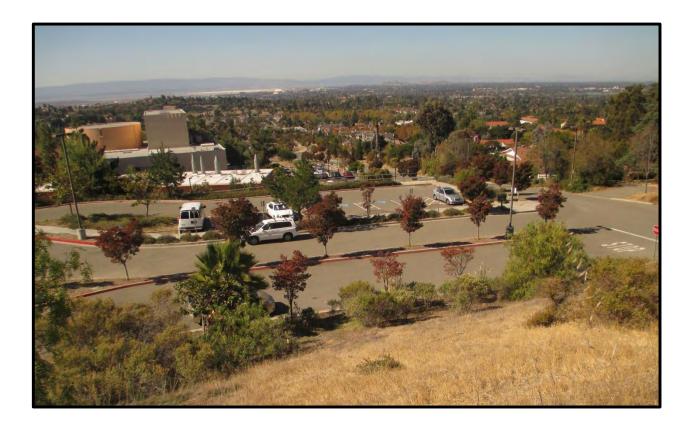




Photo 14. Photo to the left is of the natural area located on the slope west of the circle in Group 5. Acacia and Eucalyptus should be removed. The other trees and shrubs in the area can be left to remain as is.



Photo 15. Photo to the left shows the rootstock suckering of the Purple Leaf Plums located in Group 8. The suckering cannot be controlled attempt made will likely be too costly. Removal and replacement for these trees is recommended.



Photo 16. Many of the London Planes adjacent to the Student Services Building have settled below grade and are likely receiving too much water as a result. Almost all trees are in fair to good condition and are fit for transplant, if necessary. The soil conditions and soil volume are unknown for the trees in the grates.

End Photo Supplement