Arborist Report Dana Point Harbor – Areas 1-16 City of Dana Point, Orange County, California

Prepared for:

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SECTION 1: INTRODUCTION

This report presents the results of a tree survey conducted by Michael Brandman Associates (MBA) for Dana Point Harbor Areas 1-16 located in the City of Dana Point, County of Orange, California. The arborist survey is consistent with scientific and professional standards accepted by the International Society of Arboriculture (ISA). This report provides identification, location, and an assessment of health and structure for all the trees on the site within Areas 1-16 as required by the California Coastal Commission (CCC). This tree survey is required for activities associated with tree maintenance and the protection of trees used within the past 5 years for roosting, breeding, and nesting bird species protected by the California Department of Fish and Game (CDFG) code and the Migratory Bird Treaty Act (MBTA), owls, raptors and all bird species listed as California Species of Special Concern by the CDFG. The survey and report adhere to all applicable standards of the International Society of Arboriculture (ISA) and guidelines in the CCC Dana Point Harbor implementation Plan dated march 29, 2011.

1.1 - Survey Area Location

The project site is Dana Point Harbor, which is regionally located south of Pacific Coast Highway (State Route [SR] 1), northwest of the San Diego County line and southeast of SR-133 (Exhibit 1). The site can be found on the Dana Point, California, United States Geological Survey (USGS) 7.5-minute, topographic map, Sections 22 and 23, Township 8 South, Range 8 West (Exhibit 2). Specifically, the survey area is located south of the intersection of Golden Lantern Street and Dana Point Harbor Drive within Dana Point Harbor (Exhibit 3). The survey area within the project site includes Areas 1-16 as designated by OC Dana Point Harbor (OC DPH).

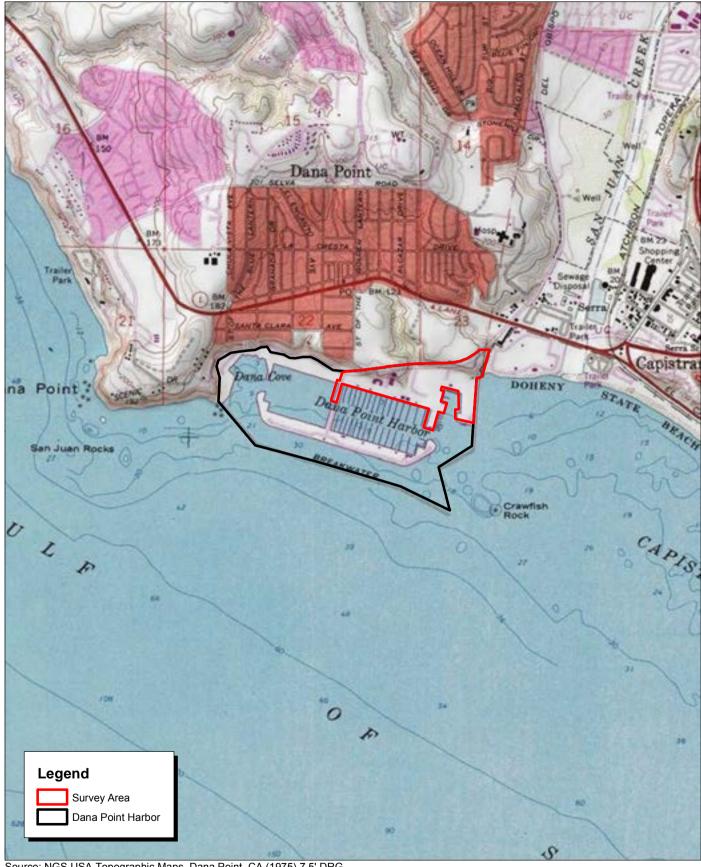
1.2 - Environmental Setting

The survey area consists of 16 areas covering approximately 53 acres of the 276-acre Dana Point Harbor project site. The survey area is bounded to the north by residential and commercial uses, to the east by Doheny State Park, to the south by the Pacific Ocean, and to the west by commercial uses. The topography of the survey area is level and paved with asphalt or concrete. Elevation ranges from 5 feet above mean sea level (msl) at the Pacific Ocean to 22 feet above msl at Dana Point Harbor Drive at the northern boundary of the survey area. The survey area is entirely developed. Trees on the site are part of the landscaping of the Harbor, the majority of which are non-native, ornamental species. Dominant species include sugar gum (*Eucalyptus cladocalyx*) and red gum (*Eucalyptus camaldulensis*).



Source: Census 2000 Data, The CaSIL, MBA GIS 2011.





Source: NGS USA Topographic Maps, Dana Point, CA (1975) 7.5' DRG.

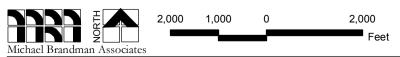


Exhibit 2 Local Vicinity Map Topographic Base



Source: NAIP Orange County, CA (2009).

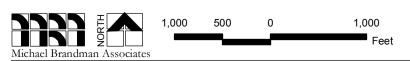


Exhibit 3 Local Vicinity Map **Aerial Base**

SECTION 2: METHODOLOGY

Prior to the tree survey in the field, reference materials such as aerial photography, the Dana Point USGS topographic map, and applicable local policies regarding tree protection were reviewed.

The tree survey was conducted by MBA biologist Tommy Molioo and biologist and certified arborist Diana Lloyd (ISA No. WE-8790A) on August 31, September 1, 6, 7, 8, 9, and 13, 2011, which is during the breeding and nesting season as defined by the California Coastal Commission.

The survey was conducted by walking the entire site to survey all the trees and palm trees in the survey area. For the purpose of this report, "tree" is defined as: a woody perennial plant, typically having a single trunk and bearing lateral branches at some distance from the ground. Similarly, for purposes of this report, a "palm tree" is defined as a perennial plant having an unbranched trunk crowned by large pinnate or palmate leaves (including plants in the family Arecaceae and Cycadaceae).

Trees with a trunk greater than 4 inches in Diameter at Breast Height (DBH; 1.3 meters or 4.5 feet from the ground) were surveyed, however, trees with a trunk less than 4 inches in DBH and shrubs were not surveyed. Shrubs include plants that are greatly branched from the base with none of the stems reaching 4 inches in DBH. For woody trees having multiple trunks, the DBH of each trunk was recorded and summed, per standard arborist practice. For clusters of palm trees, the average DBH of each trunk was recorded.

A round, numbered aluminum tag was nailed on the north side, at the base of each tree and palm tree for identification (with the exception of trees surveyed and tagged in 2008). Tags for palm trees were placed in the roots if attachment was not feasible on trunk. In 2008, a tree survey was conducted in areas 1, 2, and 3 (Exhibit 4) and trees within those areas were tagged with numbers from 001 to 351, except for the palm trees in the monument area on the southwest corner of Golden Lantern Street and Dana Point Harbor Drive. In order to remain consistent with the numbering scheme used to date, numbers continue starting at 349 and include all trees greater than 4 inches DBH and palm trees taller than 6 feet. Tree tags were assigned in numerical order based on the area number, when feasible.

The location of each tree was mapped using a Trimble GeoXT Global Positioning System (GPS) hand-held unit. This unit provides sub-meter accuracy in real-time. The tree location map was prepared using the digital data collected in the field.

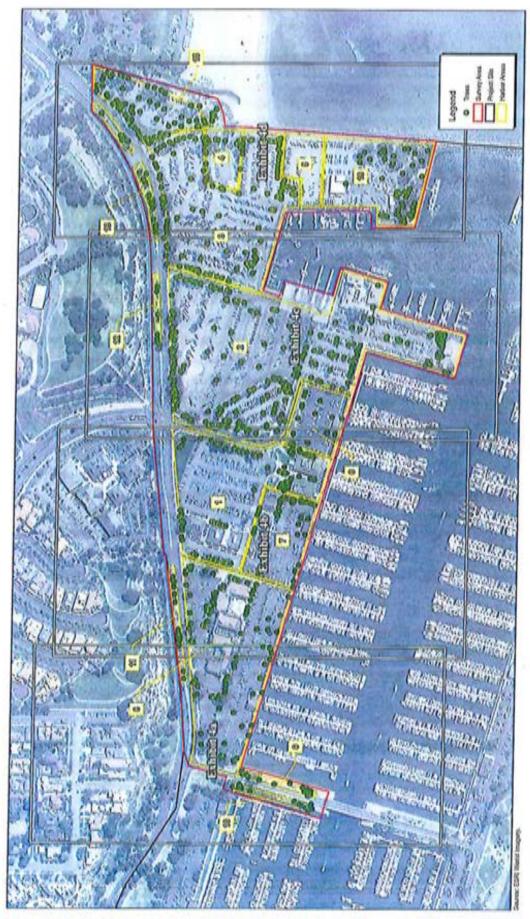


Exhibit 4
Tree Location Index
Association report years



8,1

The following data was recorded for each tree during the field survey, including previously surveyed trees in Areas 1, 2, and 3:

- Tag number
- Tree species
- DBH
- General health
- General structure
- Trunk location

The assessment of the general health and structure of each tree and palm tree was evaluated using a scale ranging from good to very poor as described in Table 1 and Table 2 below.

Table 1: Health Assessment Rubric

Rubric	Description
Good	Canopy is dense. New growth is vigorous as evidenced by stem elongation and color. No visual signs of stress. Minimal or no pathogen damage present. Minimal or no deadwood present. May have mild crown die-back.
Fair	Tree has minimal or no deadwood. Tree is typical of others in the area. Canopy is full (moderate crown dieback). Minor pest or pathogen damage may be observable.
Poor	Tree displays some deadwood (i.e., major limb death). Foliar canopy is sparse (major crown dieback). Tree exhibits obvious signs of stress. Excessive epicormic growth. Tree exhibits little to no signs of new growth or vigor. Possible pathogen infestation.
Very Poor	Tree displays severe dieback of branches, canopy is extremely sparse. May exhibit extensive pathogen infestation. Or tree is dead.

Table 2: Structure Assessment Rubric

Rubric	Description
Good	Good branch attachment. No damage to root system. Well-formed structure. Some flaws may be present but are hardly noticeable.
Fair	Some minor structural defects. Minor, well-healed trunk damage may be present. Though flawed, the development of the trunk and branches is typical of this species.
Poor	Structure poorly formed with major structural defects such as, significant damage to trunk, poor attachment or development of limbs, exposed or defective root system, asymmetrical canopy, trunk has a significant lean.
Very Poor	Trunk has large pockets of decay, has codominant stems with included bark, or has a severe lean. Limbs or branches are poorly attached or dead. Possible hazard.

SECTION 3: RESULTS AND RECOMMENDATIONS

The site is completely developed and contains trees within parkways and parking lots as part of the landscaping of the Harbor. A total of 721 trees and palm trees were evaluated on the site. Appendix A provides the tree survey data table with details on all of the trees surveyed within the survey area. Appendix B provides detailed maps corresponding to the insets depicted on Exhibit 4, and Appendix C contains representative photographs of some of the surveyed trees. Table 3 below summarizes the tree numbers within areas 1-16. Skipped numbers in Table 3 are due to trees that were removed since the survey in 2008. Tree numbers are in numerical order for ease of reference. Table 4 below, summarizes the total quantity of each species of tree surveyed in the Harbor. The majority of the trees surveyed had good health. Two (2) sugar gum trees (#286 & 305) were considered to have very poor health and were either declining or dead and should be removed. Similarly, the majority of the trees surveyed had good structure. Twenty (20) trees were considered to have very poor structure and included one golden-wattle acacia tree (#171), three red river gum trees (#61, 347, 766), one silver dollar gum tree (#274), and 17 sugar gum trees (#102, 286, 296, 298, 299, 301, 305, 316, 317, 318, 319, 324, 338, 718, 762, 793, & 798), two of which are the aforementioned declining/dead trees. Trees with very poor health or very poor structure represent a potential hazard to public safety and are candidates for removal. Three (3) additional trees are recommended for removal. Tree #371 is a California fan palm that is in good health and has good structure, however, it has grown so large that it has developed a 4' tall offshoot and both the main tree and offshoot are now endangering the lamppost and a wall adjacent to the sidewalk. If allowed to remain, this palm and its offshoot may cause the lamppost to fall due to increased girth and root mass development, and therefore poses a public safety hazard. Tree #438, and tree #484 have poor health and poor structure. While these trees do not currently pose a public safety hazard, they are obviously declining and will likely become a public safety hazard within 2 years. Therefore, removal of these two trees is recommended to protect against future tree failure.

Eucalyptus species are self-pruning, meaning that when limbs get too large or heavy for the attachment point, they fail. Since the majority of the trees are eucalyptus species, it is recommended that a certified arborist with experience pruning large eucalyptus species be contracted to prune the trees (The ISA website keeps a list of local arborists with pruning experience). In particular, pruning techniques including crown cleaning, crown reduction, and crown thinning should be used on eucalyptus trees with a DBH greater than 10 inches and on any trees characterized as having poor health or poor structure. Pruning should always be conducted in the following priorities: removal of dead limbs, removal of crossing limbs, then shaping what is left. MBA recommends that the OC Dana Point Harbor. phase out eucalyptus trees with more appropriate street tree species that are less likely to pose a public safety hazard.

Table 3: Summary of Tree Numbers Located in Areas 1-16

Tree Numbers	Area
8, 11-14, 17, 22-26, 31-33, 39-55, 58-62, 65-68, 71-92, 95, 100-116, 118-121, 123, 126-136, 140-141, 144-149, 151-153, 156, 159-162, 168, 172, 174, 176, 180-187, 189-190, 192, 194, 196, 198-202, 204, 207, 210, 212-213, 216-218	2
219-228, 230, 241-248	1
252, 254, 256-258	7
260, 262, 271-275, 277-280	1
281-303, 305-306, 308-324, 326-335, 337-347	3
349-366	1
368-423	2
424-462	3
463-476	4
477-484	3
485-487	16
488-500	6
501-511	7
512-523	1
524-545	7
546-637	8
638-651	9
652-664	10
665-681	11
682-688	12
689-702	13
703-708	14
709-778	15
779-819	16
No Trees Exist within Area 5	5

Table 4: Summary of Tree Species in the Survey Area

Botanic Name	Common Name	Quantity Observed
Acacia cyclops	Golden wattle acacia	3
Archontophoenix cunninghamiana	King palm	38
Araucaria heterophylla	Norfolk-island pine	1
Callistemon viminalis	Weeping bottlebrush	4
Corymbia ficifolia	Red-flowering eucalyptus	20
Cupaniopsis anacardioides	Carrotwood	3
Erythrina caffra	Coast coral tree	10
Eriobotrya deflexa	Bronze loquat	1
Eucalyptus camaldulensis	Red river gum	112
Eucalyptus citriodora	Lemon-scented gum	2
Eucalyptus cladocalyx	Sugar gum	306
Eucalyptus maculata	Spotted gum	24
Eucalyptus polyanthemos	Silver-dollar gum	4
Eucalyptus sideroxylon	Red ironbark eucalyptus	3
Ficus rubiginosa	Rust leaf fig	6
Juniperus chinensis var. 'Torulosa'	Twisted Hollywood juniper	3
Magnolia grandiflora var. 'Little Gem'	Southern magnolia	3
Melaleuca quinquinervia	Cajeput	6
Myoporum laetum	Ngaio	1
Pinus caneriensis	Canary Island pine	4
Pinus radiata	Monterrey pine	1
Pinus torreyana	Torrey pine	5
Platanus × acerifolia	London plane	5
Platanus occidentalis	American sycamore	7
Platanus racemosa	California sycamore	26
Prunus caroliniana var. 'Monus' (Bright 'n Tight TM)	Carolina Cherry Laurel	3
Shinus terebinthifolius	Brazilian pepper	1
Strelitzia nicolai	Giant White Bird of Paradise	3
Syagrus romanzoffianum	Queen palm	44
Trachycarpus fortunei	Windmill palm	3
Washingtonia filifera	California fan palm	56
Washingtonia robusta	Mexican fan palm	13
Total		721

Trees that are removed must be replaced at a ratio of 2:1 in accordance with the Certified Dana Point Harbor Revitalization Plan and District Regulations (RP). Suitable replacement species for use in various sized parkways are listed in Appendix D. Additional reference guides that describe the type of environmental and cultural considerations that should be evaluated when planting trees in urban landscapes are available online, such as at www.Urbantree.org, www.StreetTreeSeminar.com, etc.

As presented in the following section of this report, any tree pruning or removal of trees identified as providing habitat for breeding, roosting, and nesting birds protected by the CCC must occur outside of the nesting season in accordance with the policies and guidelines in the RP. In particular, all tree pruning or removal must be conducted outside of the nesting bird season, unless the maintenance activity is an emergency and avoidance and mitigation measures are implemented as directed by the CCC.

Many river red gum (*Eucalyptus camaldulensis*) trees in the survey area are infested with eucaluptus tortoise beetle (brown roundish beetles in the family Chrysomelidae) and/or lerp psyllid (*Glycaspis brimblecombei*). Other eucalyptus species in the survey area are also susceptible to these pests, however river red gum is the most susceptible. In addition, a few eucalyptus trees were observed to have fungi at the base of the trunk or near the roots. Pesticides are not recommended for these pests, as they will also rid the tree of beneficial insects that prey on pest species. Management of these pests is best accomplished through appropriate cultural care. The cultural care outlined below should be performed for every tree within the survey area to encourage healthy trees and good structure, as well as pest management.

Appropriate irrigation for river red gum should avoid frequent, shallow watering (often used for lawns) and should ensure deep, infrequent watering of the soil. For example drip emitters or low volume bubblers that run continuously for several days could be used once per month during the summer, and less frequently during other months. When possible, irrigation should occur beneath the outer canopy of the tree rather than near the trunk. The specific amount and frequency of water needed varies greatly depending on the site and tree species and should be monitored and managed carefully.

Avoid fertilizing eucalyptus, as psyllids prefer the abundant, succulent new shoot growth stimulated by excess nitrogen. If other plants within the drip line of the tree require fertilization, use slow-release fertilizers. Avoid adding mulch or soil to the base of the tree above the roots. It is best for both tree trunks and the top of the roots that attach to the trunk to be completely exposed. This will ensure proper air circulation to the base of the trunk, which is necessary to avoid excessive moisture in trunk tissues. Excessive moisture at the trunk encourages trunk and root rot, which is especially dangerous since it compromises structural wood at the tree base. Trunk and root rot at the base of a tree creates a hazardous situation as it possible for it to fail as a whole.

Similarly, pruning often stimulates new growth of succulent foliage, which is preferred by psyllids. When possible, pruning should be done in December when trees are less stressed and pests are inactive. A general rule of thumb is to avoid pruning more than 25% of the canopy at one time. If extensive limb removal is planned, space the trimming over several years so that trees maintain adequate foliage and extensive portions of previously shaded bark are not suddenly exposed to direct sunlight, which can result in sunburn cankers. A guide to pruning both young and mature trees is presented in Appendix E.

SECTION 4: REGULATORY FRAMEWORK

4.1 - Certified Dana Point Harbor Revitalization Plan and District Regulations

The Dana Point Harbor Revitalization Plan and District Regulations Land Use Plan component was effectively certified by the California Coastal Commission on October 13, 2009. The Implementation Plan was subsequently effectively certified on January 12, 2011 and the final certification determination for the City of Dana Point Local Coastal Program Amendment, with all previously adopted suggested modifications, was approved on October 6, 2011.

While previously conducted evaluations and surveys of trees located throughout Dana Point Harbor document that existing individual or groupings of trees do not raise to the level of Environmentally Sensitive Habitat Area (ESHA) as defined by the California Coastal Commission, nesting habitat protection policies and tree maintenance procedures have been incorporated into the Revitalization Plan that preclude the removal of any tree that has been used within the past 5 years for roosting, breeding and nesting by wading birds (herons or egrets), California bird species of special concern or those protected by the Migratory Bird Treaty Act, and owls and raptors, unless the tree must be removed due to public health and safety reasons.

When trees used for roosting, breeding and nesting are removed, mitigation in the form of tree replacement using native or non-native, no-invasive tree species (no Eucalyptus species) at a 2:1 ratio (minimum 36 inch box size) and 5 year monitoring program must be provided. The Revitalization Plan also requires that trees used by the above bird species within the last five years be trimmed in a manner that protects current nesting activity and the integrity of the tree for future nesting. With these policies, the effects of selective tree removal around the Harbor will be minimized. Additionally, other practices such as noise avoidance are provided in the regulations to be implemented throughout the construction process to reduce impacts on sensitive bird species. Further, these provisions shall be undertaken in compliance with all applicable codes and regulations of the California Department of Fish and Game, the U.S. Fish and Wildlife Services and the Migratory Bird Treaty Act.

For additional information, please refer to the Dana Point Harbor Revitalization Plan and District Regulations Chapter 1-7, *Coastal Resource Protection*, Chapter II-3, Special Provision Numbers 21 and 22.

SECTION 5: REFERENCES

- City of Dana Point Community Development Department. 2011. Dana Point Harbor Revitilization Plan & District Regulations Implementation Plan Component. California Coastal Commission Staff Suggested Modifications; As modified by the Commission on January 12, 2011; Local Coastal Program (LCP) Amendment Request No. 1-10; Dana Point Harbor Implementation Plan. March 29.
- Michael Brandman Associates. 2009. Revised Certified Arborist Report for the Dana Point Harbor Study Area, Orange County, California. Prepared for Vintage Marina Partners, LP. December 14.
- M.T. Mahoney, A. H. Remyn. M. P. Trotter, W. R. Trotter, M. E. Chamness, K. J. Greby. 1999. Street Trees Recommended for Southern California, Second Edition. Street Tree Seminar, Inc. ISBN 0-96-77715-0-1
- U.S. Geological Survey. (1975) 7.5' Dana Point, Quadrangle California [map]. 1:24,000. 7.5-minute Series. Washington D.C.

Appendix A: Tree Survey Data Table

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
8	Paper-bark tea tree	Melaleuca quinquinervia	8.7	good	good	
11	Paper-bark tea tree	Melaleuca quinquinervia	20.2	good	good	Surface trunk damage due to light fixture.
12	Paper-bark tea tree	Melaleuca quinquinervia	25.2	good	good	Surface trunk damage due to light fixture.
13	Paper-bark tea tree	Melaleuca quinquinervia	21.8	good	good	Surface trunk damage due to light fixture.
14	Torrey pine	Pinus torreyana	15.8	good	good	
17	Insignis pine	Pinus radiata	8.2	good	good	Crowded by eucalyptus, somewhat unbalanced structure.
22	Red river gum	Eucalyptus camaldulensis	10.7	good	good	Somewhat unbalanced.
23	Red river gum	Eucalyptus camaldulensis	8.0	good	fair	Moderately unbalanced.
24	Red river gum	Eucalyptus camaldulensis	13.6	good	good	
25	Red river gum	Eucalyptus camaldulensis	12.9	fair	good	Leaf damage by Eucalyptus Tortoise Beetle (ETB), somewhat unbalanced structure.
26	Red river gum	Eucalyptus camaldulensis	12.1	good	good	
31	Paper-bark tea tree	Melaleuca quinquinervia	17.7	good	good	
32	Red river gum	Eucalyptus camaldulensis	11.1	good	good	Mild crown die back.
33	Red river gum	Eucalyptus camaldulensis	11.8	good	good	
39	Red river gum	Eucalyptus camaldulensis	16.8	good	good	Leaf damage by ETB.
40	Red river gum	Eucalyptus camaldulensis	12.6	good	good	
41	Red river gum	Eucalyptus camaldulensis	14.4	good	good	Mild loss of pitch, one sheared limb.
42	Red river gum	Eucalyptus camaldulensis	14.3	good	good	Old wound with exposed heartwood.
43	Red river gum	Eucalyptus camaldulensis	14.4	good	good	
44	Red river gum	Eucalyptus camaldulensis	13.6	good	good	
45	Red river gum	Eucalyptus camaldulensis	12.8	good	fair	unbalanced structure.
46	Red river gum	Eucalyptus camaldulensis	10.4	good	good	structure.
47	Red river gum	Eucalyptus camaldulensis	12.5	fair	fair	Moderate crown die-back, moderately unbalanced structure.
48	Red river gum	Eucalyptus camaldulensis	6.3	fair	fair	Moderate crown die-back, moderately unbalanced structure.
49	Red river gum	Eucalyptus camaldulensis	10.9	poor	good	structure.
50	Red river gum	Eucalyptus camaldulensis	12.8	good	good	Mild crown die-back.
51	Red river gum	Eucalyptus camaldulensis	12.8	good	good	Mild trunk damage.
52	Red river gum	Eucalyptus camaldulensis	12.6	good	good	
53	Sugar gum	Eucalyptus cladocalyx	11.5	good	good	Leaf damage by ETB.
54	Red river gum	Eucalyptus camaldulensis	10.5	fair	good	Moderate crown die-back, somewhat unbalanced.

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
55	Red river gum	Eucalyptus camaldulensis	15.6	good	good	Leaf damage by ETB.
58	Red river gum	Eucalyptus camaldulensis	20.2	good	good	Leaf damage by ETB
59	Red river gum	Eucalyptus camaldulensis	35.5	good	good	Leaf damage by ETB, major concrete damage.
60	Red river gum	Eucalyptus camaldulensis	4.4, 3.0	good	good	Young tree. Remove volunteer washingtonia palm.
61	Red river gum	Eucalyptus camaldulensis	16.7	good	poor	Leaf damage by ETB, severely unbalanced structure.
62	Sugar gum	Eucalyptus cladocalyx	12.7	good	good	
65	Sugar gum	Eucalyptus cladocalyx	8.9	good	good	Mild cement damage-document for all R trees.
66	Sugar gum	Eucalyptus cladocalyx	25.7	good	good	Some cement damage, overhangs boat wash area.
67	Red river gum	Eucalyptus camaldulensis	12.9	good	fair	Mild crown die-back, moderately unbalanced structure.
68	Red river gum	Eucalyptus camaldulensis	17.7	poor	good	Major crown-die back, leaf damage by ETB, somewhat unbalanced structure. Remove volunteer palm at base.
71	Red river gum	Eucalyptus camaldulensis	17.7	good	good	Mild crown die-back, somewhat unbalanced structure.
72	Sugar gum	Eucalyptus cladocalyx	8.3	good	good	Somewhat unbalanced structure.
73	Sugar gum	Eucalyptus cladocalyx	12.5	good	good	
74	Coast Coral Tree	Erythrina caffra	53.1	good	good	
75	Sugar gum	Eucalyptus cladocalyx	18.7	good	good	
76	Sugar gum	Eucalyptus cladocalyx	17.1	good	good	Somewhat unbalanced structure.
77	Sugar gum	Eucalyptus cladocalyx	17.7	good	good	Mild crown die-back.
78	Sugar gum	Eucalyptus cladocalyx	14.0	good	good	Somewhat unbalanced structure.
79	Sugar gum	Eucalyptus cladocalyx	16.9	good	good	Somewhat unbalanced structure.
80	Sugar gum	Eucalyptus cladocalyx	17.1	good	good	
81	Sugar gum	Eucalyptus cladocalyx	19.0	good	good	Major cement damage.
82	Sugar gum	Eucalyptus cladocalyx	11.2	good	good	
83	Sugar gum	Eucalyptus cladocalyx	17.0	good	good	
84	Sugar gum	Eucalyptus cladocalyx	17.6	good	good	Somewhat unbalanced structure.
85	Sugar gum	Eucalyptus cladocalyx	15.8	good	good	
86	Sugar gum	Eucalyptus cladocalyx	30.0	good	good	Mild crown die-back.
87	Sugar gum	Eucalyptus cladocalyx	7.3	good	good	Mild crown die-back, somewhat unbalanced structure.
88	Sugar gum	Eucalyptus cladocalyx	9.5	good	good	Mild crown die-back.
89	Red river gum	Eucalyptus camaldulensis	18.0	good	good	Mild crown die-back, somewhat unbalanced structure.
90	Sugar gum	Eucalyptus cladocalyx	17.2	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
91	Sugar gum	Eucalyptus cladocalyx	24.2	good	good	Somewhat unbalanced structure.
92	Coast Coral Tree	Erythrina caffra	58.8	good	good	Roots have caused massive damage to wall and cement.
95	Sugar gum	Eucalyptus cladocalyx	19.4	good	good	Mild crown die-back, somewhat unbalanced structure.
100	Sugar gum	Eucalyptus cladocalyx	24.4	good	good	Mild crown die-back.
101	Coast Coral Tree	Erythrina caffra	43.0	good	fair	structure.
102	Sugar gum	Eucalyptus cladocalyx	13.8	poor	poor	Crown die-back, severely unbalanced structure, leans heavily and may eventually result in tree failure.
103	Sugar gum	Eucalyptus cladocalyx	17.9	good	good	Mild crown die-back.
104	Sugar gum	Eucalyptus cladocalyx	19.1	good	good	Causing some concrete damage.
105	Sugar gum	Eucalyptus cladocalyx	16.8	good	good	Causing some concrete damage.
106	Sugar gum	Eucalyptus cladocalyx	16.1	good	good	Somewhat unbalanced structure.
107	Sugar gum	Eucalyptus cladocalyx	16.1	good	good	
108	Sugar gum	Eucalyptus cladocalyx	17.6	good	good	
109	Sugar gum	Eucalyptus cladocalyx	22.6	good	good	
110	Sugar gum	Eucalyptus cladocalyx	16.7	good	good	Mild crown die-back, somewhat unbalanced structure.
111	Coast Coral Tree	Erythrina caffra	51.3	good	good	
112	Sugar gum	Eucalyptus cladocalyx	14.8	fair	fair	Crown die-back, moderately unbalanced structure.
113	Sugar gum	Eucalyptus cladocalyx	15.2	good	good	Mild crown die-back.
114	Sugar gum	Eucalyptus cladocalyx	19.7	fair	good	Moderate crown die-back.
115	Sugar gum	Eucalyptus cladocalyx	16.9	good	good	Mild crown die-back.
116	Sugar gum	Eucalyptus cladocalyx	20.4	good	good	
118	Red-flowering gum	Corymbia ficifolia	8.5	good	good	Crown die-back, spots on leaves.
119	Red-flowering gum	Corymbia ficifolia	21.9	good	good	Crown die-back, spots on leaves.
120	Red-flowering gum	Corymbia ficifolia	11.0	poor	good	structure.
121	Sugar gum	Eucalyptus cladocalyx	19.1	good	good	Root crown space too small, mild trunk damage from collisions.
123	Lemon-scented gum	Eucalyptus citriodora	14.3	good	good	
126	Sugar gum	Eucalyptus cladocalyx	16.5	good	good	Somewhat unbalanced structure.
127	Red ironbark eucalyptus	Eucalyptus sideroxylon	16.0	good	good	
128	Sugar gum	Eucalyptus cladocalyx	10.2	good	fair	Mild crown die-back, moderately unbalanced structure.
129	Red-flowering gum	Corymbia ficifolia	15.0	good	good	Mild loss of pitch.
130	Red-flowering gum	Corymbia ficifolia	10.6	good	good	Mild loss of pitch.

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
131	Sugar gum	Eucalyptus cladocalyx	18.3	good	good	
132	Spotted gum	Eucalyptus maculata	11.0	good	good	Lower trunk damage due to collision.
133	Sugar gum	Eucalyptus cladocalyx	26.2	good	good	Mild crown die-back, mild loss of pitch.
134	Spotted gum	Eucalyptus maculata	11.5	good	good	Mild crown die-back.
135	Red river gum	Eucalyptus camaldulensis	15.4	good	good	Mild trunk damage, one cavity.
136	Red ironbark eucalyptus	Eucalyptus sideroxylon	13.3	fair	good	Excessive epicormic growth.
140	Sugar gum	Eucalyptus cladocalyx	18.9	good	good	
141	Spotted gum	Eucalyptus maculata	11.1	good	good	
144	Sugar gum	Eucalyptus cladocalyx	21.8	good	good	Mild loss of pitch.
145	Sugar gum	Eucalyptus cladocalyx	23.4	good	good	
146	Sugar gum	Eucalyptus cladocalyx	26.0	good	good	Mild loss of pitch, somewhat unbalanced structure.
147	Sugar gum	Eucalyptus cladocalyx	15.7	good	good	Somewhat unbalanced structure.
148	Red river gum	Eucalyptus camaldulensis	16.4	fair	good	Moderate loss of pitch, somewhat unbalanced structure.
149	Red river gum	Eucalyptus camaldulensis	14.0	good	good	Surface damage on lower trunk.
151	Sugar gum	Eucalyptus cladocalyx	17.2	good	good	Mild crown die-back, somewhat unbalanced structure.
152	Sugar gum	Eucalyptus cladocalyx	15.5	good	good	Mild crown die-back.
153	Sugar gum	Eucalyptus cladocalyx	20.0	good	good	Mild crown die-back, somewhat unbalanced structure.
156	Red river gum	Eucalyptus camaldulensis	17.9	fair	good	Moderate crown die-back.
159	Sugar gum	Eucalyptus cladocalyx	23.6	good	good	
160	Sugar gum	Eucalyptus cladocalyx	13.2	good	good	Somewhat unbalanced structure.
161	Sugar gum	Eucalyptus cladocalyx	31.7	good	good	
162	Sugar gum	Eucalyptus cladocalyx	27.4	good	good	Mild crown die-back, somewhat unbalanced structure.
168	Sugar gum	Eucalyptus cladocalyx	15.0	fair	good	Moderate crown die-back.
171	Golden wattle acacia	Acacia cyclops	6.0	good	poor	structure.
172	Spotted gum	Eucalyptus maculata	5.6	fair	good	Leaf damage by ETB.
174	Spotted gum	Eucalyptus maculata	15.0	poor	good	Major crown die-back, somewhat unbalanced structure.
176	Spotted gum	Eucalyptus maculata	6.5	fair	good	Moderate crown die-back.
180	Spotted gum	Eucalyptus maculata	6.0	good	good	Mild crown die-back, somewhat unbalanced structure.
182	Spotted gum	Eucalyptus maculata	22.7	good	good	Mild crown die-back, observed nuttall's woodpecker in tree
183	Spotted gum	Eucalyptus maculata	16.0	good	good	
184	Spotted gum	Eucalyptus maculata	21.8	good	good	Mild crown die-back.

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
185	Spotted gum	Eucalyptus maculata	18.9	fair	good	Moderate crown die-back, loss of pitch.
	Spotted gum	Eucalyptus maculata	11.5		good	Moderate crown die-back, suspect included bark.
	Spotted gum	Eucalyptus maculata		good	good	Somewhat unbalanced structure.
	Spotted gum	Eucalyptus maculata		good	poor	structure.
190	Red river gum	Eucalyptus camaldulensis	13.9	good	good	Leaf damage by ETB, somewhat unbalanced structure.
192	Sugar gum	Eucalyptus cladocalyx		good	good	Surface trunk damage, cooper's hawk observed nearby.
194	Sugar gum	Eucalyptus cladocalyx	25.9	fair	good	Moderate loss of pitch, old wound with exposed heartwood.
196	Sugar gum	Eucalyptus cladocalyx	23.8	good	good	Old wound with exposed heartwood, excessive epicormic growth.
197	Sugar gum	Eucalyptus cladocalyx	27.2	good	good	Old wound with exposed heartwood.
198	Sugar gum	Eucalyptus cladocalyx	29.8	good	good	structure.
199	Sugar gum	Eucalyptus cladocalyx	9.0	good	good	Mild crown die-back.
200	Sugar gum	Eucalyptus cladocalyx	20.9	good	good	
201	Sugar gum	Eucalyptus cladocalyx	16.0	good	good	Mild crown die-back.
202	Sugar gum	Eucalyptus cladocalyx	11.0	good	good	
204	Sugar gum	Eucalyptus cladocalyx	13.1	good	good	Mild crown die-back.
207	Ngaio	Myoporum laetum	10.9	good	good	Some leaves diseased-curled.
210	Sugar gum	Eucalyptus cladocalyx	14.9	good	good	Old wound with exposed heartwood.
212	Sugar gum	Eucalyptus cladocalyx	14.4	fair	good	Moderate crown die-back, somewhat unbalanced structure.
213	Sugar gum	Eucalyptus cladocalyx	30.9	good	good	Old wound with exposed heartwood, surface trunk damage.
216	Sugar gum	Eucalyptus cladocalyx	14.4	good	good	
217	Sugar gum	Eucalyptus cladocalyx	20.5	good	good	Mild crown die-back.
218	Sugar gum	Eucalyptus cladocalyx	21.2	good	fair	Somewhat unbalanced structure, suspect included bark.
219	Sugar gum	Eucalyptus cladocalyx	19.2	good	good	
220	Sugar gum	Eucalyptus cladocalyx	19.7	good	good	
221	Sugar gum	Eucalyptus cladocalyx	30.0	good	good	
222	Sugar gum	Eucalyptus cladocalyx	15.4	good	good	Surface damage at base of trunk.
223	Sugar gum	Eucalyptus cladocalyx	17.9	good	good	Somewhat unbalanced structure.
224	Sugar gum	Eucalyptus cladocalyx	25.6	poor	fair	Old large wound with exposed heartwood, termites.
225	Sugar gum	Eucalyptus cladocalyx	29.1	good	good	Mild loss of pitch.
226	Sugar gum	Eucalyptus cladocalyx	32.0	good	good	
227	Sugar gum	Eucalyptus cladocalyx	26.0	good	good	Mild loss of pitch.

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
228	Sugar gum	Eucalyptus cladocalyx	17.3	fair	good	Moderate crown die-back, cavity in limb.
230	Red river gum	Eucalyptus camaldulensis	19.2	good	good	Old wound with exposed heartwood.
234	Southern magnolia 'Little Gem'	Magnolia grandiflora	3.1	good	good	
236	Southern magnolia 'Little Gem'	Magnolia grandiflora	3.6	good	good	
237	Sugar gum	Eucalyptus cladocalyx	22.8	good	good	Surface trunk damage.
238	Sugar gum	Eucalyptus cladocalyx	21.7	good	good	Mild crown die-back, surface trunk damage, one broken limb.
239	Coast Coral Tree	Erythrina caffra	40.3	good	good	Leaf spots, suspect included bark.
240	Sugar gum	Eucalyptus cladocalyx	35.3	good	good	Somewhat unbalanced structure, included bark.
241	Sugar gum	Eucalyptus cladocalyx	13.0	fair	good	Moderate crown die-back, some lean.
242	Sugar gum	Eucalyptus cladocalyx	23.6	good	good	Mild crown die-back.
243	Sugar gum	Eucalyptus cladocalyx	19.6	good	good	
244	Sugar gum	Eucalyptus cladocalyx	21.5	good	good	Old wounds with exposed heartwood, surface trunk damage, somewhat unbalanced structure.
245	Sugar gum	Eucalyptus cladocalyx	24.5	good	good	Surface trunk damage.
246	Red river gum	Eucalyptus camaldulensis	10.7	fair	good	Major crown die-back, surface trunk damage.
247	Sugar gum	Eucalyptus cladocalyx	21.4	good	good	Mild crown die-back.
248	Sugar gum	Eucalyptus cladocalyx	23.5	good	good	Mild crown die-back, somewhat unbalanced structure.
252	London plane	Platanus × acerifolia	9.7	good	fair	Mildew on leaves, root crown space too small, moderately unbalanced structure.
254	London plane	Platanus × acerifolia	10.0	good	fair	Mildew on leaves, root crown space too small, moderately unbalanced structure.
256	London plane	Platanus × acerifolia	7.5	fair	good	Mildew on leaves, root crown space too small.
257	London plane	Platanus × acerifolia	8.8	fair	good	Mildew on leaves, root crown space too small.
258	London plane	Platanus × acerifolia	10.5	fair	good	Mildew on leaves, root crown space too small.
260	Coast Coral Tree	Erythrina caffra	56.5	good	good	
262	Lemon-scented gum	Eucalyptus citriodora	18.3	good	good	
271	Sugar gum	Eucalyptus cladocalyx	22.2	good	good	Leaf damage by ETB, somewhat unbalanced structure.
272	Sugar gum	Eucalyptus cladocalyx	20.0	good	good	Leaf damage by ETB, somewhat unbalanced structure.
273	Sugar gum	Eucalyptus cladocalyx	19.3	good	good	Somewhat unbalanced structure.
274	Silver-dollar gum	Eucalyptus polyanthemos	19.0	good	poor	Severely unbalanced structure, building damage.
275	Sugar gum	Eucalyptus cladocalyx	15.5	fair	fair	Moderate crown die-back, unbalanced structure.

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
277	Silver-dollar gum	Eucalyptus polyanthemos	16.8	good	good	Causing building damage, Should thin bamboo in this area because it is too moist for the tree roots and trunks
278	Silver-dollar gum	Eucalyptus polyanthemos	11.5	good	good	Causing building damage. Should thin bamboo in this area because it is too moist for the tree roots and trunks
279	Silver-dollar gum	Eucalyptus polyanthemos	11.3	good	good	should thin bamboo in this area because it is too moist for the tree roots and trunks
280	Sugar gum	Eucalyptus cladocalyx	22.5	good	good	Suspect included bark, impending building damage.
281	Sugar gum	Eucalyptus cladocalyx	14.0	good	good	Impending building damage. Should thin bamboo in this area because it is too moist for the tree roots and trunks
282	Red river gum	Eucalyptus camaldulensis	7.0	good	good	Mild crown die-back, surface trunk damage.
283	Red river gum	Eucalyptus camaldulensis	16.2	good	good	Leaf damage by ETB, mild crown die-back.
284	Red river gum	Eucalyptus camaldulensis	15.5	good	good	
285	Red river gum	Eucalyptus camaldulensis	7.7	good	good	
286	Sugar gum	Eucalyptus cladocalyx	11.9	poor	very poor	recommended.
287	Red-flowering gum	Corymbia ficifolia	8.5	good	fair	Leaf spots, moderately unbalanced structure.
288	Sugar gum	Eucalyptus cladocalyx	11.5	fair	good	Moderate crown die-back, somewhat unbalanced structure.
289	Sugar gum	Eucalyptus cladocalyx	12.1	fair	fair	Moderate crown die-back, moderately unbalanced structure.
290	Red river gum	Eucalyptus camaldulensis	10.9	fair	good	structure.
291	Sugar gum	Eucalyptus cladocalyx	8.8	good	fair	Moderately unbalanced structure.
292	Sugar gum	Eucalyptus cladocalyx	9.0	good	fair	Moderately unbalanced structure.
293	Sugar gum	Eucalyptus cladocalyx	7.7	fair	fair	Moderate crown die-back, moderately unbalanced structure.
294	Sugar gum	Eucalyptus cladocalyx	10.0	good	fair	Mild crown die-back, moderately unbalanced structure.
295	Sugar gum	Eucalyptus cladocalyx	10.8	good	good	Mild crown die-back, somewhat unbalanced structure.
296	Sugar gum	Eucalyptus cladocalyx	12.3	good	poor	Severely unbalanced structure.
297	Sugar gum	Eucalyptus cladocalyx	4.5	good	fair	Moderately unbalanced structure.
298	Sugar gum	Eucalyptus cladocalyx	5.6	good	poor	Severely unbalanced structure.
299	Sugar gum	Eucalyptus cladocalyx	4.7	good	poor	Severely unbalanced structure.
300	Red river gum	Eucalyptus camaldulensis	7.0	fair	good	Moderate crown die-back, somewhat unbalanced structure.
301	Sugar gum	Eucalyptus cladocalyx	13.8	fair	poor	Moderate crown die-back, severely unbalanced structure.
302	Red river gum	Eucalyptus camaldulensis	12.7	poor	good	Major crown die-back, somewhat unbalanced structure.
303	Red river gum	Eucalyptus camaldulensis	12.0	fair	fair	Moderate crown die-back, moderately unbalanced structure.

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
305	Sugar gum	Eucalyptus cladocalyx	11.4	Very poor	Very poor	Dead. Removal recommended.
306	Red river gum	Eucalyptus camaldulensis	18.2	good	good	Surface damage on lower trunk.
308	Sugar gum	Eucalyptus cladocalyx	12.5	good	good	Mild crown die-back, somewhat unbalanced structure.
309	Red river gum	Eucalyptus camaldulensis	18.9	good	good	
310	Sugar gum	Eucalyptus cladocalyx	18.2	good	good	
311	Red river gum	Eucalyptus camaldulensis	10.5	fair	fair	Leaf damage by ETB, moderate crown die-back, moderately unbalanced structure.
312	Red river gum	Eucalyptus camaldulensis	11.1	poor	good	Leaf damage by ETB, major crown die-back, somewhat unbalanced structure.
313	Sugar gum	Eucalyptus cladocalyx	12.5	good	poor	Root crown space too small, somewhat unbalanced structure, causing cement damage.
314	Sugar gum	Eucalyptus cladocalyx	22.3	good	fair	Mild crown die-back, moderately unbalanced structure.
315	Sugar gum	Eucalyptus cladocalyx	24.5	good	good	Somewhat unbalanced structure.
316	Sugar gum	Eucalyptus cladocalyx	21.8	poor	poor	Some epicormic growth, moderate crown die-back, severely unbalanced structure.
317	Sugar gum	Eucalyptus cladocalyx	8.9	fair	poor	Excessive epicormic growth, severely unbalanced structure.
318	Sugar gum	Eucalyptus cladocalyx	13.8	fair	Very poor	Moderate crown die-back, extremely unbalanced structure.
319	Sugar gum	Eucalyptus cladocalyx	15.9	good	poor	Severely unbalanced structure.
320	Sugar gum	Eucalyptus cladocalyx	11.3	poor	good	Major crown die-back, somewhat unbalanced structure.
321	Sugar gum	Eucalyptus cladocalyx	7.9	poor	good	Major crown die-back, somewhat unbalanced structure.
322	Sugar gum	Eucalyptus cladocalyx	19.0	fair	good	Excessive epicormic growth, causing cement damage.
323	Spotted gum	Eucalyptus maculata	11.2	good	good	Mild crown die-back.
324	Sugar gum	Eucalyptus cladocalyx	18.3	good	poor	Some epicormic growth, severely unbalanced structure, causing cement damage.
326	Sugar gum	Eucalyptus cladocalyx	28.4	good	good	Causing severe cement damage.
327	Red-flowering gum	Corymbia ficifolia	10.5	good	good	
328	Sugar gum	Eucalyptus cladocalyx	16.0	fair	fair	Excessive epicormic growth, moderately unbalanced structure.
329	Red-flowering gum	Corymbia ficifolia	8.5	good	good	Somewhat unbalanced structure.
330	Red-flowering gum	Corymbia ficifolia	15.3	good	good	Somewhat unbalanced structure.
331	Spotted gum	Eucalyptus maculata	9.1	good	good	Leaf damage by ETB, some leaves curled, old would with exposed heartwood.

Observers: D. Lloyd, T. Molioo

Dates: 8/31, 9/1,9/ 6, 9/7, 9/8, 914, 2011

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
332	Sugar gum	Eucalyptus cladocalyx	17.2	good	fair	Moderately unbalanced structure, causing cement damage.
333	Red-flowering gum	Corymala ficifolia	17.2	good	fair	Loss of pitch, trunk damage due to collisions, somewhat unbalanced structure, causing cement damage.
	Spotted gum	Eucalyptus maculata	13.7	fair	good	Leaf damage by ETB, mild crown die-back, epicormic growth, cement damage.
335	Red-flowering gum	Corymbia ficifolia	9.1	poor	poor	Severe crown die-back, broken limbs.
337	Sugar gum	Eucalyptus cladocalyx	26.3	good	good	
338	Sugar gum	Eucalyptus cladocalyx	16.4	good	poor	Severly unbalanced structure.
339	Sugar gum	Eucalyptus cladocalyx	13.6	good	poor	Mild crown die-back, severely unbalanced structure.
340	Sugar gum	Eucalyptus cladocalyx	23.3	good	good	Mild crown die-back, old would with exposed heartwood.
341	Sugar gum	Eucalyptus cladocalyx	12.2	poor	fair	Moderate crown die-back, excessive epicormic growth, somewhat unbalanced structure, some dead wood.
342	Sugar gum	Eucalyptus cladocalyx	9.1	fair	good	Moderate crown die-back.
343	Sugar gum	Eucalyptus cladocalyx	11.3	fair	good	Moderate crown die-back, somewhat unbalanced structure.
344	Sugar gum	Eucalyptus cladocalyx	17.0	good	good	Mild crown die-back, somewhat unbalanced structure.
345	Sugar gum	Eucalyptus cladocalyx	6.7	poor	fair	Major crown die-back, somewhat unbalanced structure.
346	Red river gum	Eucalyptus camaidulensis	11.3	fair	good	Leaf damage by ETB, moderate crown die-back, somewhat unbalanced structure.
347	Red river gum	Eucalyptus camaidulensis	14.7	poor	poor	Major crown die-back, severely unbalanced structure.
348	Red river gum	Eucalyptus camaldulensis	19.5	poor	good	damage.
349	Canary Island pine PALM	Pinus caneriensis PHOENIX	22.8	fair	good	
350	Canary Island sine PALM	Pinus caneriensis PHOENIX	30.1	fair	good	
351	Canary Island pine A4CM	Pinuscaneriensis PHOENIX	29.5	fair	good	
352	California fan palm	Washingtonia filifera	19.3	good	good	
353	California fan palm	Washingtonia filifera	8.0	good	good	
354	California fan palm	Washingtonia filifera	18.8	good	good	
355	California fan palm	Washingtonia fillfera	19.0	good	good	
356	Queen paim	Syagrus romanzoffianum	10.2	good	good	
357	Queen palm	Syagrus romanzoffianum	10.2	good	good	
358	Queen palm	Syagrus romanzofflanum	11.6	good	good	
359	Queen paim	Syagrus romanzofflanum	12.5	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
360	Queen palm	Syagrus romanzoffianum	5.3	good	good	
361	Queen palm	Syagrus romanzoffianum	11.8	good	good	
362	Queen palm	Syagrus romanzoffianum	15.5	fair	good	rot.
363	Queen palm	Syagrus romanzoffianum	11.1	good	good	
364	Queen palm	Syagrus romanzoffianum	12.8	good	good	
365	Southern magnolia 'Little Gem'	Magnolia grandiflora	4.6	good	good	
366	King palm	Archontophoenix cunninghamiana	4.8	good	good	Cluster of 3, dbh is avg
367	King palm	Archontophoenix cunninghamiana	7.9	good	good	
368	King palm	Archontophoenix cunninghamiana	6.2	fair	good	Cluster of 2, dbh is avg
369	King palm	Archontophoenix cunninghamiana	4.8	fair	good	Cluster of 3, dbh is avg
370	California fan palm	Washingtonia filifera	19.7	good	good	
371	California fan palm	Washingtonia filifera	13.4	good	good	Has 4' tall offshoot and both are endangering lamp post and wall. With time these palms may cause lamp post failure, and are therefore a hazard to publuc safety
372	Queen palm	Syagrus romanzoffianum	8.1	fair	good	Some fungi near base
373	Queen palm	Syagrus romanzoffianum	9.4	good	good	
374	Queen palm	Syagrus romanzoffianum	9.1	good	good	
375	Queen palm	Syagrus romanzoffianum	7.2	fair	good	Some fungi observed near the base of the tree
376	Queen palm	Syagrus romanzoffianum	9.6	fair	good	
377	California fan palm	Washingtonia filifera	15.6	good	good	
378	California fan palm	Washingtonia filifera	13.5	good	good	
379	California fan palm	Washingtonia filifera	14.6	good	good	
380	California fan palm	Washingtonia filifera	19.3	good	good	
381	Queen palm	Syagrus romanzoffianum	6.6	fair	good	
382	Queen palm	Syagrus romanzoffianum	7.5	good	good	
383	Queen palm	Syagrus romanzoffianum	6.6	fair	good	
384	Queen palm	Syagrus romanzoffianum	8.3	fair	good	
385	Torrey pine	Pinus torreyana	5.2	fair	good	
386	King palm	Archontophoenix cunninghamiana	4.6	fair	good	
387	King palm	Archontophoenix cunninghamiana	7.4	fair	good	
388	California fan palm	Washingtonia filifera	17.7	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
389	California fan palm	Washingtonia filifera	13.3	good	good	has offshoot, dbh is avg
390	King palm	Archontophoenix cunninghamiana	8.0	fair	good	
391	King palm	Archontophoenix cunninghamiana	13.0	fair	good	
392	Queen palm	Syagrus romanzoffianum	10.0	fair	good	
393	Giant white bird of paradise	Strelitzia nicolai	5.2	good	good	cluster of 5, avg dbh
394	Giant white bird of paradise	Strelitzia nicolai	5.4	good	good	
395	Giant white bird of paradise	Strelitzia nicolai	5.1	good	good	cluster of 5, avg dbh
396	Queen palm	Syagrus romanzoffianum	9.7	fair	good	
397	Queen palm	Syagrus romanzoffianum	9.2	fair	good	
398	King palm	Archontophoenix cunninghamiana	4.5	good	good	cluster of 2 avg dbh
399	King palm	Archontophoenix cunninghamiana	5.3	good	good	cluster of 5, avg dbh
400	Queen palm	Syagrus romanzoffianum	11.0	good	good	
401	King palm	Archontophoenix cunninghamiana	5.0	fair	good	cluster of 3, avg dbh
402	King palm	Archontophoenix cunninghamiana	8.2	fair	good	
403	King palm	Archontophoenix cunninghamiana	6.3	fair	good	
404	Queen palm	Syagrus romanzoffianum	11.5	good	good	
405	Queen palm	Syagrus romanzoffianum	6.7	good	good	
406	Queen palm	Syagrus romanzoffianum	9.2	fair	good	
407	Queen palm	Syagrus romanzoffianum	11.6	good	good	
408	Queen palm	Syagrus romanzoffianum	9.4	good	good	
409	Queen palm	Syagrus romanzoffianum	10.8	good	good	
410	Queen palm	Syagrus romanzoffianum	9.5	good	good	
411	Queen palm	Syagrus romanzoffianum	11.8	good	good	
412	King palm	Archontophoenix cunninghamiana	8.1	fair	good	cluster of 2, avg dbh
413	King palm	Archontophoenix cunninghamiana	6.2	fair	good	cluster of 2, avg dbh
414	King palm	Archontophoenix cunninghamiana	7.8	fair	good	
415	King palm	Archontophoenix cunninghamiana	6.2	good	good	
416	King palm	Archontophoenix cunninghamiana	8.5	good	good	
417	King palm	Archontophoenix cunninghamiana	6.3	fair	good	
418	King palm	Archontophoenix cunninghamiana	7.3	good	good	
419	King palm	Archontophoenix cunninghamiana	8.1	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
420	King palm	Archontophoenix cunninghamiana	7.0	fair	good	
421	King palm	Archontophoenix cunninghamiana	8.0	good	good	
422	King palm	Archontophoenix cunninghamiana	7.4	good	good	
423	King palm	Archontophoenix cunninghamiana	7.4	good	good	
424	King palm	Archontophoenix cunninghamiana	5.9	good	good	
425	King palm	Archontophoenix cunninghamiana	4.4	good	good	cluster of 3, avg dbh
426	King palm	Archontophoenix cunninghamiana	4.0	good	good	cluster of 2, avg dbh
427	King palm	Archontophoenix cunninghamiana	4.4	good	good	has 2 small suckers
428	King palm	Archontophoenix cunninghamiana	4.6	good	good	cluster of 3, avg dbh
429	King palm	Archontophoenix cunninghamiana	4.8	good	good	
430	King palm	Archontophoenix cunninghamiana	5.3	good	good	cluster of 3, avg dbh
431	King palm	Archontophoenix cunninghamiana	5.4	good	good	cluster of 3, avg dbh
432	King palm	Archontophoenix cunninghamiana	6.2	good	good	
433	Norfolk Island pine	Araucaria heterophylla	5.8	good	good	
434	Sugar gum	Eucalyptus cladocalyx	37.9	good	good	
435	Sugar gum	Eucalyptus cladocalyx	14.4	good	fair	
436	Sugar gum	Eucalyptus cladocalyx	37.8	good	good	
437	Sugar gum	Eucalyptus cladocalyx	39.0	good	good	
438	Red river gum	Eucalyptus camaldulensis	12.5	poor	poor	limited leaf cover, may need to be removed within a year or two to prevent tree failure
439	Sugar gum	Eucalyptus cladocalyx	20.2	good	good	
440	Sugar gum	Eucalyptus cladocalyx	11.2	fair	poor	
441	Sugar gum	Eucalyptus cladocalyx	13.8	good	good	
442	Sugar gum	Eucalyptus cladocalyx	25.7	fair	fair	
443	Sugar gum	Eucalyptus cladocalyx	29.8	good	good	
444	Red river gum	Eucalyptus camaldulensis	14.1	good	fair	
445	Sugar gum	Eucalyptus cladocalyx	21.6	good	fair	
446	Sugar gum	Eucalyptus cladocalyx	32.4	good	good	
447	Sugar gum	Eucalyptus cladocalyx	13.4	fair	fair	
448	Red river gum	Eucalyptus camaldulensis	14.3	fair	fair	
449	Red river gum	Eucalyptus camaldulensis	22.5	fair	fair	observed beetle frass under bark

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
450	Red ironbark eucalyptus	Eucalyptus sideroxylon	12.8	good	fair	
451	Sugar gum	Eucalyptus cladocalyx	17.2	fair	poor	Large wound at base of trunk, exposed heartwood
452	Sugar gum	Eucalyptus cladocalyx	9.4	fair	poor	2 wounds at base of trunk, exposed heartwood
453	Sugar gum	Eucalyptus cladocalyx	27.3	good	fair	codominantinant trunks
454	Sugar gum	Eucalyptus cladocalyx	7.5	fair	fair	1 wound at base of trunk, exposed heartwood
455	Sugar gum	Eucalyptus cladocalyx	18.9	good	good	
456	Red river gum	Eucalyptus camaldulensis	15.0	fair	fair	
457	Sugar gum	Eucalyptus cladocalyx	25.3	good	good	
458	Sugar gum	Eucalyptus cladocalyx	11.7	good	fair	
459	Red river gum	Eucalyptus camaldulensis	18.3	good	good	
460	Sugar gum	Eucalyptus cladocalyx	7.6	poor	poor	past pruning has left dead stubs and exposed heartwood
461	Red river gum	Eucalyptus camaldulensis	10.6	poor	poor	longitudinal scar and evidence of trunk rot observed
462	Red river gum	Eucalyptus camaldulensis	9.0	poor	poor	significant crown dieback
463	Sugar gum	Eucalyptus cladocalyx	15.2	good	good	
464	Red river gum	Eucalyptus camaldulensis	15.0	poor	good	significant crown dieback
465	Sugar gum	Eucalyptus cladocalyx	39.1	good	good	
466	Sugar gum	Eucalyptus cladocalyx	39.5	good	good	
467	Sugar gum	Eucalyptus cladocalyx	16.3	fair	poor	termite damage, significant twisting and leaning trunk
468	Canary Island pine	Pinus caneriensis	14.3	good	good	
469	Sugar gum	Eucalyptus cladocalyx	32.4	poor	poor	trunks
470	Sugar gum	Eucalyptus cladocalyx	21.1	good	good	
471	Sugar gum	Eucalyptus cladocalyx	5.8	good	fair	some dead wood
472	Sugar gum	Eucalyptus cladocalyx	8.6	good	fair	1 wound in trunk, 1 in a branch
473	Sugar gum	Eucalyptus cladocalyx	8.7	fair	good	some deadwood
474	Sugar gum	Eucalyptus cladocalyx	22.0	fair	good	some deadwood, note nest in adjacent cell tower
475	Sugar gum	Eucalyptus cladocalyx	19.3	good	good	
476	Sugar gum	Eucalyptus cladocalyx	32.2	good	poor	4 codominant trunks from base due to topping in past
477	Red river gum	Eucalyptus camaldulensis	17.2	poor	fair	significant crown dieback, apparent lerp psyllid infestation
478	Sugar gum	Eucalyptus cladocalyx	10.3	good	good	
479	Sugar gum	Eucalyptus cladocalyx	16.0	good	good	
480	Sugar gum	Eucalyptus cladocalyx	21.2	good	fair	codominant trunks

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
481	Sugar gum	Eucalyptus cladocalyx	7.8	good	good	
482	Sugar gum	Eucalyptus cladocalyx	10.9	poor	good	of trunk
483	Sugar gum	Eucalyptus cladocalyx	18.2	good	fair	codominant trunks
484	Red river gum	Eucalyptus camaldulensis	6.1	poor	poor	declining, lim leaf cover, significant deadwood
485	California fan palm	Washingtonia filifera	16.6	good	good	
486	Coast Coral Tree	Erythrina caffra	56.2	good	good	
487	Spotted gum	Eucalyptus maculata	36.1	good	fair	codominant trunks
488	Red-flowering gum	Corymbia ficifolia	11.9	fair	fair	trunk rot
489	Red-flowering gum	Corymbia ficifolia	22.6	fair	fair	codominant trunk aparent trunk rot
490	Sugar gum	Eucalyptus cladocalyx	13.2	fair	fair	some deadwood, codominant trunks
491	Red river gum	Eucalyptus camaldulensis	15.2	poor	poor	limited crown cover, significant deadwood, major wound in trunk
492	California fan palm	Washingtonia filifera	18.3	good	good	
493	Red river gum	Eucalyptus camaldulensis	14.2	fair	fair	2 significant wound on tree
494	Red river gum	Eucalyptus camaldulensis	23.5	good	fair	codominant trunk
495	Red river gum	Eucalyptus camaldulensis	6.6	fair	fair	pest infested, 1 limb poor attachment
496	Red-flowering gum	Corymbia ficifolia	26.8	good	fair	1 wound indicating potential root rot, however, vigor of tree indicates appropriate compartmentilization
	California sycamore	Platanus racemosa	17.2	good	good	
498	California sycamore	Platanus racemosa	9.1	poor	good	significant crown dieback, leaf spot symptoms
499	California sycamore	Platanus racemosa	17.1	good	good	
500	California sycamore	Platanus racemosa	18.2	good	fair	some crown dieback and old wound in trunk
501	King palm	Archontophoenix cunninghamiana	8.7	fair	fair	some dead leaf tips
502	King palm	Archontophoenix cunninghamiana	5.7	fair	fair	cluster of three, some dead leaf tips
503	King palm	Archontophoenix cunninghamiana	8.8	fair	fair	some dead leaf tips
504	Queen palm	Syagrus romanzoffianum	9.7	good	good	
505	Queen palm	Syagrus romanzoffianum	10.2	good	good	
506	Queen palm	Syagrus romanzoffianum	8.4	good	good	
507	California sycamore	Platanus racemosa	8.8	good	good	soil/mulch, built up around trunk
508	California sycamore	Platanus racemosa	7.2	good	fair	unbalanced structure
509	California sycamore	Platanus racemosa	16.8	good	fair	codominant trunks
510	California sycamore	Platanus racemosa	16.8	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
511	California sycamore	Platanus racemosa	17.3	good	good	
	Coast Coral Tree	Erythrina caffra	36.4	good	fair	
513	Queen palm	Syagrus romanzoffianum		good	good	
514	Queen palm	Syagrus romanzoffianum	7.1	good	good	
515	Queen palm	Syagrus romanzoffianum	4.4	good	good	
516	Queen palm	Syagrus romanzoffianum	10.7	good	good	
517	Queen palm	Syagrus romanzoffianum	7.1	good	good	
518	Windmill palm	Trachycarpus fortunei	11.5	good	good	
519	Windmill palm	Trachycarpus fortunei	5.7	good	good	
520	Windmill palm	Trachycarpus fortunei	6.0	good	good	
521	King palm	Archontophoenix cunninghamiana	10.0	good	good	
522	Queen palm	Syagrus romanzoffianum	9.4	good	good	
523	Queen palm	Syagrus romanzoffianum	6.6	good	good	
524	American sycamore	Platanus occidentalis	14.9	good	good	
525	California sycamore	Platanus racemosa	27.4	good	good	
526	American sycamore	Platanus occidentalis	12.7	good	good	
527	American sycamore	Platanus occidentalis	8.2	good	good	
528	American sycamore	Platanus occidentalis	19.1	good	good	
529	California sycamore	Platanus racemosa	15.0	good	good	
530	California sycamore	Platanus racemosa	4.3	good	good	
531	California sycamore	Platanus racemosa	12.5	good	good	
532	California sycamore	Platanus racemosa	4.1	good	good	
533	California sycamore	Platanus racemosa	14.2	good	good	
534	California sycamore	Platanus racemosa	12.2	good	good	
535	California sycamore	Platanus racemosa	18.9	good	fair	
535	California sycamore	Platanus racemosa	4.5	good	good	
536	California sycamore	Platanus racemosa	16.1	good	good	
537	California sycamore	Platanus racemosa	15.5	good	good	
538	California sycamore	Platanus racemosa	14.3	good	good	
539	California sycamore	Platanus racemosa	18.4	good	good	
540	California sycamore	Platanus racemosa	16.6	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
541	California sycamore	Platanus racemosa	13.0	good	good	
542	Sugar gum	Eucalyptus cladocalyx	11.2	good	fair	some deadwood
543	Sugar gum	Eucalyptus cladocalyx	19.0	fair	fair	some deadwood, root bound at sidewalk
544	Sugar gum	Eucalyptus cladocalyx	14.1	fair	fair	some deadwood
545	Sugar gum	Eucalyptus cladocalyx	14.0	fair	poor	some deadwood, Ig old wound at base
546	Sugar gum	Eucalyptus cladocalyx	11.9	fair	good	root bound at sidewalk, oozing sap
547	American sycamore	Platanus occidentalis	16.8	good	good	
548	California fan palm	Washingtonia filifera	18.7	good	good	
549	California fan palm	Washingtonia filifera	20.3	good	good	
550	California fan palm	Washingtonia filifera	19.2	good	good	
551	California fan palm	Washingtonia filifera	18.8	good	good	
552	California fan palm	Washingtonia filifera	16.4	good	good	
553	California fan palm	Washingtonia filifera	16.6	good	good	
554	California fan palm	Washingtonia filifera	17.0	good	good	
555	Sugar gum	Eucalyptus cladocalyx	11.7	good	good	
556	American sycamore	Platanus occidentalis	13.8	good	good	
557	California sycamore	Platanus racemosa	24.2	good	good	
558	American sycamore	Platanus occidentalis	11.6	fair	poor	half trunk appears hollow
559	Red-flowering gum	Corymbia ficifolia	5.4	fair	fair	oozing sap, some broken branches
560	Red-flowering gum	Corymbia ficifolia	13.7	good	good	
561	Sugar gum	Eucalyptus cladocalyx	15.8	fair	good	root bound at sidewalk, oozing sap
562	Sugar gum	Eucalyptus cladocalyx	18.6	good	fair	partially girdled root,
563	Red-flowering gum	Corymbia ficifolia	10.3	good	good	
564	Red-flowering gum	Corymbia ficifolia	15.0	good	good	
565	Sugar gum	Eucalyptus cladocalyx	10.7	good	good	
566	California sycamore	Platanus racemosa	21.2	good	good	
567	Paper-bark tea tree	Melaleuca quinquinervia	11.3	good	good	
568	Red river gum	Eucalyptus camaldulensis	27.0	good	fair	codominant trunks
569	California fan palm	Washingtonia filifera	16.6	good	good	
570	Red river gum	Eucalyptus camaldulensis	16.4	good	fair	codominant trunks
571	California fan palm	Washingtonia filifera	17.3	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
572	California fan palm	Washingtonia filifera	16.6	good	good	
573	Red river gum	Eucalyptus camaldulensis	19.8	good	good	
574	California fan palm	Washingtonia filifera	18.7	good	good	
575	Red river gum	Eucalyptus camaldulensis	13.3	good	fair	codominant trunks
576	Red-flowering gum	Corymbia ficifolia	11.2	poor	poor	significant crown dieback,2 trunks from base
577	Sugar gum	Eucalyptus cladocalyx	10.3	good	fair	lg wound at base
578	Sugar gum	Eucalyptus cladocalyx	17.4	good	fair	significant unbalanced crown due to poor pruning
579	Red river gum	Eucalyptus camaldulensis	13.2	good	fair	codominant trunks, root bound at sidewalk
580	Red river gum	Eucalyptus camaldulensis	14.2	good	poor	significant crown dieback, pest infested
581	Red-flowering gum	Corymbia ficifolia	7.0	good	fair	some crown dieback
582	Sugar gum	Eucalyptus cladocalyx	33.2	good	fair	codominant trunks
583	Spotted gum	Eucalyptus maculata	15.7	good	poor	significant crown dieback, pest infested
584	Spotted gum	Eucalyptus maculata	31.8	good	good	
585	Spotted gum	Eucalyptus maculata	20.2	fair	fair	some crown dieback, codominant trunks
586	Spotted gum	Eucalyptus maculata	17.2	good	fair	codominant trunks
587	Torrey pine	Pinus torreyana	19.1	good	fair	major lean
588	Spotted gum	Eucalyptus maculata	22.4	good	fair	several old wounds, 2 large broken limbs
589	Spotted gum	Eucalyptus maculata	13.7	poor	poor	some crown dieback, significant lean, codominant trunks, fungus at base of trunk
590	Sugar gum	Eucalyptus cladocalyx	40.4	good	good	
591	Sugar gum	Eucalyptus cladocalyx	45.3	good	fair	codominant trunks
592	Golden wattle acacia	Acacia cyclops	13.1	good	fair	codominant trunks, some of which have been lopped in the past
593	Sugar gum	Eucalyptus cladocalyx	31.4	fair	fair	some crown dieback, root bound at parkinglot
594	California fan palm	Washingtonia filifera	19.8	good	good	
595	Golden wattle acacia	Acacia cyclops	7.9	good	fair	codominant trunks, some of which have been lopped in the past
596	Sugar gum	Eucalyptus cladocalyx	34.7	good	good	
597	California fan palm	Washingtonia filifera	16.5	good	good	
598	California fan palm	Washingtonia filifera	18.0	good	good	
599	California fan palm	Washingtonia filifera	18.3	good	good	
600	Sugar gum	Eucalyptus cladocalyx	20.0	good	good	
601	Sugar gum	Eucalyptus cladocalyx	27.8	good	poor	3 codominant trunks

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
_						notes
	Sugar gum	Eucalyptus cladocalyx		good	good	
-	Sugar gum	Eucalyptus cladocalyx	28.4		good	some deadwood
-	Sugar gum	Eucalyptus cladocalyx		good	good	
	Red river gum	Eucalyptus camaldulensis	12.5	fair	fair	some crown dieback, codominant trunks
606	Red river gum	Eucalyptus camaldulensis	29.3	fair	fair	some crown dieback, codominant trunks
607	Sugar gum	Eucalyptus cladocalyx		good	good	
608	Sugar gum	Eucalyptus cladocalyx	31.2	good	good	
609	Sugar gum	Eucalyptus cladocalyx	15.3	good	good	
610	Carrotwood	Cupaniopsis anacardioides	7.3	good	good	
611	Carrotwood	Cupaniopsis anacardioides	9.3	good	good	
612	Carrotwood	Cupaniopsis anacardioides	13.0	good	good	
613	California fan palm	Washingtonia filifera	13.3	good	good	
614	California fan palm	Washingtonia filifera	13.3	good	good	
615	California fan palm	Washingtonia filifera	13.7	good	good	
616	California fan palm	Washingtonia filifera	12.8	good	good	
617	California fan palm	Washingtonia filifera	14.4	good	good	
618	California fan palm	Washingtonia filifera	12.8	good	good	
619	Cherry laurel 'Bright n Tight'™	Prunus caroliniana 'Monus'	8.6	good	good	
620	Cherry laurel 'Bright n Tight'™	Prunus caroliniana 'Monus'	7.4	good	good	
621	Twisted Hollywood juniper 'Torulosa'	Juniperus chinensis	8.6	good	fair	wounds at base
622	Twisted Hollywood juniper 'Torulosa'	Juniperus chinensis	12.8	good	fair	wounds at base
623	Twisted Hollywood juniper 'Torulosa'	Juniperus chinensis	12.5	good	fair	wounds at base
624	Bronze loquat	Eriobotrya deflexa	5.8	good	good	
625	Cherry laurel 'Bright n Tight'™	Prunus caroliniana 'Monus'	11.6	good	good	
626	Sugar gum	Eucalyptus cladocalyx	20.7	good	good	
	Red river gum	Eucalyptus camaldulensis		good	fair	old wound at base, codominant trunks
	Queen palm	Syagrus romanzoffianum		good	good	
629	Queen palm	Syagrus romanzoffianum	10.2	good	good	
630	Queen palm	Syagrus romanzoffianum		good	good	
631	Queen palm	Syagrus romanzoffianum		good	good	
	Sugar gum	Eucalyptus cladocalyx	19.8	i	fair	Some crown dieback, codominant trunks

			DBH	General	General	
Tag No.	Species	Botanical name	(inches)	Health	Structure	Notes
						Some crown dieback, codominant trunks, fungus in grass nearby,
633	Sugar gum	Eucalyptus cladocalyx	27.2	fair	fair	likely attached to roots
634	Weeping bottlebrush	Callistemon viminalis	19.6	good	fair	codominant trunks
635	Weeping bottlebrush	Callistemon viminalis	8.2	good	good	
636	Weeping bottlebrush	Callistemon viminalis	24.0	good	fair	codominant trunks
637	Weeping bottlebrush	Callistemon viminalis	19.2	good	fair	codominant trunks, old wound in trunk
638	Torrey pine	Pinus torreyana	32.2	good	fair	codominant trunks
639	Red river gum	Eucalyptus camaldulensis	17.8	poor	fair	significant deadwood, codominant trunks
640	Red river gum	Eucalyptus camaldulensis	14.0	fair	fair	some crown dieback, codominant trunks
641	Sugar gum	Eucalyptus cladocalyx	34.8	fair	fair	some crown dieback, codominant trunks
640	Red river gum	Fugaliatus comoldulancia	16.6	foir	foir	significant deadwood, pest frass and white fungus in trunk, codominant trunks
		Eucalyptus camaldulensis		+	fair	codominant trunks
	California fan palm	Washingtonia filifera		good	good fair	cluster of 2
	California fan palm	Washingtonia filifera		good	+	cluster of 2
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	California fan palm	Washingtonia filifera		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	cluster of 2, dbh avg
	California fan palm	Washingtonia filifera		good	fair	cluster of 2, ubit avg
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm Mexican fan palm	Washingtonia robusta		good good	good	
		Washingtonia robusta		-	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Mexican fan palm	Washingtonia robusta		good	good	
	Sugar gum	Eucalyptus cladocalyx		good	good	
661	Sugar gum	Eucalyptus cladocalyx	9.0	fair	fair	some dieback, codominant trunks

			DBH	General	General	
Tag No.	Species	Botanical name	(inches)	Health	Structure	Notes
662	Sugar gum	Eucalyptus cladocalyx	26.5	fair	good	some crown dieback
663	Sugar gum	Eucalyptus cladocalyx	13.0	good	fair	corkscrew shaped trunk
664	Torrey pine	Pinus torreyana	26.0	good	good	
665	California fan palm	Washingtonia filifera	17.2	good	good	
666	Sugar gum	Eucalyptus cladocalyx	13.6	fair	poor	some deadwood, major wound at base
667	Sugar gum	Eucalyptus cladocalyx	13.4	fair	poor	some deadwood, poor attachment angles
668	Red river gum	Eucalyptus camaldulensis	9.2	fair	good	significant dieback
669	Sugar gum	Eucalyptus cladocalyx	21.4	good	fair	codominant trunks
670	Red river gum	Eucalyptus camaldulensis	6.1	fair	good	some dieback
671	Red river gum	Eucalyptus camaldulensis	4.1	fair	good	some dieback
672	Red river gum	Eucalyptus camaldulensis	9.2	fair	fair	pest infested, bent trunk
673	Sugar gum	Eucalyptus cladocalyx	15.2	fair	good	some dieback
674	Red river gum	Eucalyptus camaldulensis	14.8	fair	good	some dieback
675	California fan palm	Washingtonia filifera	18.0	good	good	
676	Red river gum	Eucalyptus camaldulensis	16.7	fair	fair	pest infested, codominant trunks
677	Red river gum	Eucalyptus camaldulensis	35.3	fair	fair	pest infested, 3 codominant trunks
678	Red river gum	Eucalyptus camaldulensis	11.0	poor	fair	pest infested, significant deadwood
679	Red river gum	Eucalyptus camaldulensis	19.0	fair	fair	some crown dieback
680	Red river gum	Eucalyptus camaldulensis	6.6	fair	fair	some crown dieback, twisted trunk
681	Sugar gum	Eucalyptus cladocalyx	19.0	good	good	
682	Sugar gum	Eucalyptus cladocalyx	18.1	good	fair	significant lean, Ig wound in trunk
683	Sugar gum	Eucalyptus cladocalyx	19.7	good	good	
684	Sugar gum	Eucalyptus cladocalyx	13.2	good	fair	significant lean, wound in trunk
685	Red river gum	Eucalyptus camaldulensis	8.2	poor	fair	significant crown dieback, significant deadwood
686	Sugar gum	Eucalyptus cladocalyx	20.7	good	fair	codominant trunks
687	Red river gum	Eucalyptus camaldulensis	7.9	fair	fair	some crown dieback
687	Sugar gum	Eucalyptus cladocalyx	24.1	good	fair	codominant trunks
688	Sugar gum	Eucalyptus cladocalyx	24.2	fair	fair	old wound in trunk, some crown dieback
689	Sugar gum	Eucalyptus cladocalyx	20.1	good	fair	poor angle of attachment
690	Sugar gum	Eucalyptus cladocalyx	15.2	good	fair	lg wound at base
691	Sugar gum	Eucalyptus cladocalyx	11.3	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
692	Red river gum	Eucalyptus camaldulensis	26.5	fair	fair	some cown dieback codominant trunks
693	Red river gum	Eucalyptus camaldulensis	27.2	fair	fair	some cown dieback codominant trunks
694	Red river gum	Eucalyptus camaldulensis	15.3	fair	fair	some cown dieback codominant stems
695	Red river gum	Eucalyptus camaldulensis	11.6	poor	good	significant crown dieback
696	Sugar gum	Eucalyptus cladocalyx	16.5	good	good	
697	Sugar gum	Eucalyptus cladocalyx	11.3	good	good	
698	Sugar gum	Eucalyptus cladocalyx	16.1	good	fair	some deadwood
699	Sugar gum	Eucalyptus cladocalyx	17.6	fair	good	some crown dieback
700	Sugar gum	Eucalyptus cladocalyx	15.4	good	fair	significant lean
701	Sugar gum	Eucalyptus cladocalyx	15.3	good	fair	significant lean
702	Sugar gum	Eucalyptus cladocalyx	16.0	good	fair	significant lean
703	Sugar gum	Eucalyptus cladocalyx	20.7	good	good	
704	Sugar gum	Eucalyptus cladocalyx	15.4	good	fair	old wound in trunk
705	Sugar gum	Eucalyptus cladocalyx	13.6	good	good	
706	Sugar gum	Eucalyptus cladocalyx	13.8	good	fair	significant lean
707	Sugar gum	Eucalyptus cladocalyx	14.6	good	good	
708	Sugar gum	Eucalyptus cladocalyx	15.8	good	fair	lg wound at base
709	Sugar gum	Eucalyptus cladocalyx	11.6	good	fair	significant lean, old wound at base
710	Sugar gum	Eucalyptus cladocalyx	13.6	fair	fair	some crown dieback, codominant trunks
711	Sugar gum	Eucalyptus cladocalyx	18.4	good	fair	lg wound at base
712	Sugar gum	Eucalyptus cladocalyx	12.1	fair	fair	some crown dieback, codominant trunks
713	Sugar gum	Eucalyptus cladocalyx	16.4	good	fair	1 dead brach, twisted trunk
714	Sugar gum	Eucalyptus cladocalyx	45.2	good	fair	3 codominant trunks from base
715	Sugar gum	Eucalyptus cladocalyx	5.8	good	good	
716	Sugar gum	Eucalyptus cladocalyx	49.5	good	fair	4 codominant trunks from base
717	Sugar gum	Eucalyptus cladocalyx	17.8	fair	good	some deadwood
718	Sugar gum	Eucalyptus cladocalyx	15.6	good	fair	included barck , codominant trunks
719	Sugar gum	Eucalyptus cladocalyx	9.7	fair	fair	twisted trunk, some deadwood
720	Sugar gum	Eucalyptus cladocalyx	21.3	fair	fair	some deadwood, 3 codominant trunks
721	Sugar gum	Eucalyptus cladocalyx	21.8	good	good	
722	Rust-leaf fig	Ficus rubiginosa	11.5	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
723	Sugar gum	Eucalyptus cladocalyx	16.4	good	fair	twisted trunk
724	Sugar gum	Eucalyptus cladocalyx	10.6	fair	fair	twisted trunk, some deadwood
725	Red river gum	Eucalyptus camaldulensis	14.2	poor	good	significant crown dieback
726	Sugar gum	Eucalyptus cladocalyx	12.5	fair	fair	some deadwood, old winds un trunk
727	Sugar gum	Eucalyptus cladocalyx	17.6	good	fair	twisted trunk
728	Sugar gum	Eucalyptus cladocalyx	17.0	fair	fair	some deadwood, poor angle of attachment
729	Red river gum	Eucalyptus camaldulensis	29.5	poor	fair	significant crown dieback, codominant trunks
730	Red river gum	Eucalyptus camaldulensis	13.3	poor	good	significant crown dieback
731	Red river gum	Eucalyptus camaldulensis	32.8	fair	fair	some crown dieback, codominant trunks
732	Red river gum	Eucalyptus camaldulensis	14.8	fair	good	significant crown dieback
733	Brazilian pepper	Shinus terebinthifolius	11.0	good	fair	codominant trunks
734	Red river gum	Eucalyptus camaldulensis	21.8	fair	good	some crown dieback
735	Sugar gum	Eucalyptus cladocalyx	7.8	good	fair	twisted trunk
736	Sugar gum	Eucalyptus cladocalyx	12.3	fair	fair	some crown dieback, twisted trunk
737	Sugar gum	Eucalyptus cladocalyx	27.5	good	good	
738	Sugar gum	Eucalyptus cladocalyx	12.9	good	fair	significant lean
739	Sugar gum	Eucalyptus cladocalyx	29.3	good	fair	codominant trunks
740	Sugar gum	Eucalyptus cladocalyx	15.7	fair	fair	some deadwood, some crown dieback, significant lean
741	Sugar gum	Eucalyptus cladocalyx	12.4	fair	fair	some crown dieback, codominant trunks
742	Sugar gum	Eucalyptus cladocalyx	19.7	fair	fair	some crown dieback, codominant trunks
743	Sugar gum	Eucalyptus cladocalyx	14.5	good	good	
744	Sugar gum	Eucalyptus cladocalyx	14.4	fair	fair	some crown dieback, codominant trunks
745	Sugar gum	Eucalyptus cladocalyx	20.9	good	good	
746	Red river gum	Eucalyptus camaldulensis	18.5	fair	fair	some crown dieback, pest infested, frass in trunk
747	Rust-leaf fig	Ficus rubiginosa	6.0	good	good	
748	Sugar gum	Eucalyptus cladocalyx	18.1	fair	fair	some deadwood, some crown dieback, significant lean
749	Red river gum	Eucalyptus camaldulensis	8.7	fair	fair	some crown dieback,codominant trunks
750	Rust-leaf fig	Ficus rubiginosa	5.6	good	good	
751	Sugar gum	Eucalyptus cladocalyx	34.6	good	fair	codominant trunks
752	Sugar gum	Eucalyptus cladocalyx	35.9	good	fair	codominant trunks
753	Sugar gum	Eucalyptus cladocalyx	30.5	good	fair	codominant trunks

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
754	Sugar gum	Eucalyptus cladocalyx	29.8	good	good	
755	Sugar gum	Eucalyptus cladocalyx	27.9	good	fair	several large old wonds in trunk
756	Sugar gum	Eucalyptus cladocalyx	37.3	good	good	
757	Sugar gum	Eucalyptus cladocalyx	22.7	good	fair	significant lean over parking lot
758	Sugar gum	Eucalyptus cladocalyx	40.4	good	poor	codominant trunks
759	Sugar gum	Eucalyptus cladocalyx	44.4	good	fair	codominant trunks
760	Rust-leaf fig	Ficus rubiginosa	27.2	good	good	
761	Red river gum	Eucalyptus camaldulensis	20.7	good	fair	codominant trunks
762	Sugar gum	Eucalyptus cladocalyx	15.8	very poor	very poor	major sap leakage apparently due to boring pests, major wound with exposed heartwood at base, some deadwood
763	Red river gum	Eucalyptus camaldulensis	20.7	fair	fair	significant lean
764	Red river gum	Eucalyptus camaldulensis	30.3	fair	fair	algae on trunk indicates overwatering, codominant trunks
765	Rust-leaf fig	Ficus rubiginosa	17.2	good	good	
766	Red river gum	Eucalyptus camaldulensis	25.1	fair	fair	some crown dieback, poor attachment angle on large limbs
767	Red river gum	Eucalyptus camaldulensis	17.7	fair	good	some crown dieback
768	Red river gum	Eucalyptus camaldulensis	27.3	fair	fair	some crown dieback, codominant trunks
769	Rust-leaf fig	Ficus rubiginosa	10.0	good	good	
770	Sugar gum	Eucalyptus cladocalyx	10.9	good	fair	twisted trunk
771	Red river gum	Eucalyptus camaldulensis	10.6	fair	good	some crown dieback
772	Sugar gum	Eucalyptus cladocalyx	15.9	good	fair	codominant trunks, twisted trunk
773	Sugar gum	Eucalyptus cladocalyx	5.3	fair	fair	some crown dieback, twisted trunk
774	Sugar gum	Eucalyptus cladocalyx	13.0	good	fair	twisted trunk
775	Sugar gum	Eucalyptus cladocalyx	21.6	good	fair	codominant trunks, twisted trunk
776	Sugar gum	Eucalyptus cladocalyx	12.8	good	fair	codominant trunks
777	Sugar gum	Eucalyptus cladocalyx	15.0	fair	good	some crown dieback
778	Sugar gum	Eucalyptus cladocalyx	11.8	fair	good	old wound in trunk
779	Coast Coral Tree	Erythrina caffra	62.5	good	fair	codominant trunks from base
780	Coast Coral Tree	Erythrina caffra	49.9	good	fair	codominant trunks from base
781	Sugar gum	Eucalyptus cladocalyx	24.0	good	good	
782	Sugar gum	Eucalyptus cladocalyx	21.6	good	fair	codominant trunks
783	Sugar gum	Eucalyptus cladocalyx	16.1	good	good	

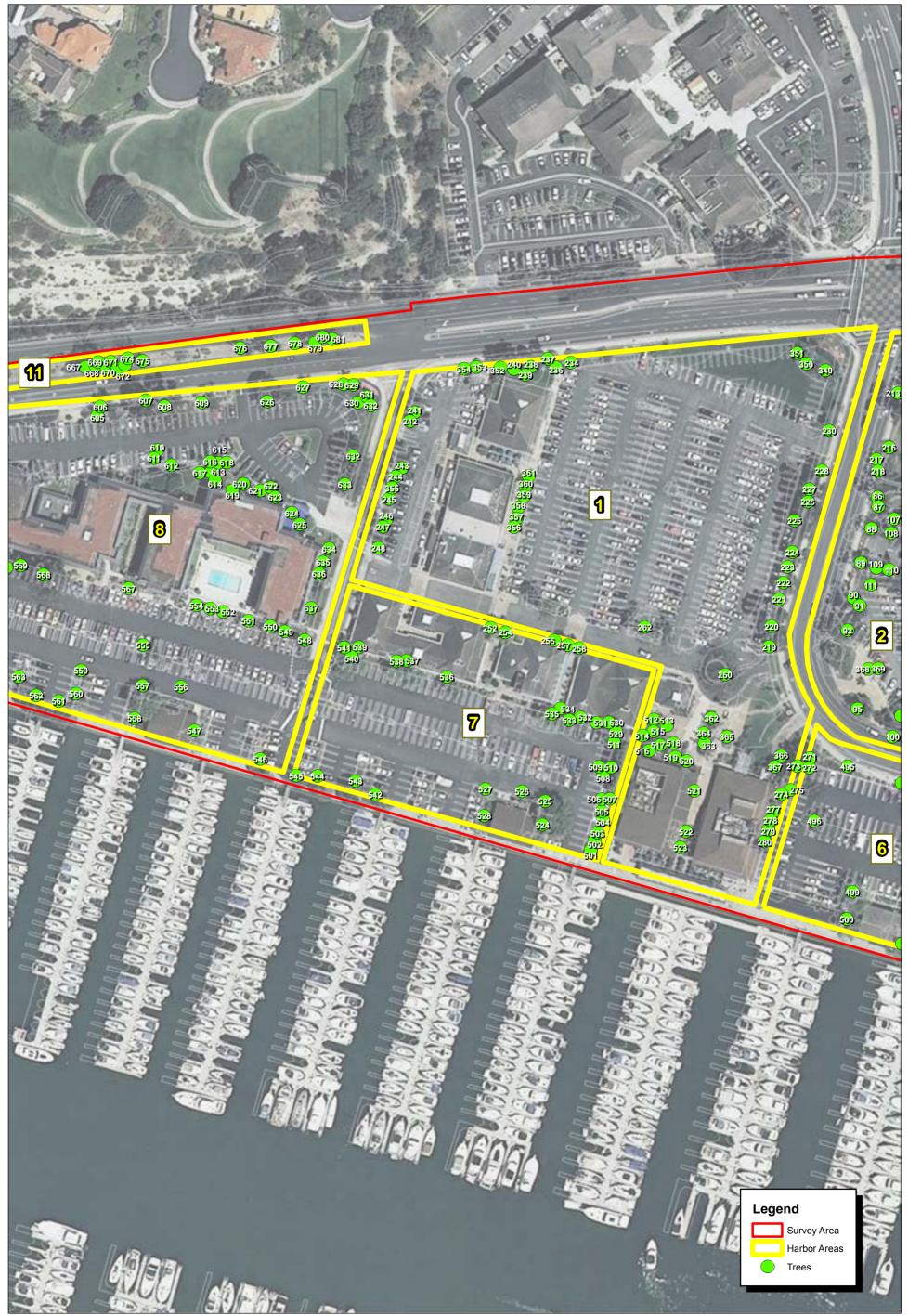
Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
784	Sugar gum	Eucalyptus cladocalyx	31.2	good	good	
785	Sugar gum	Eucalyptus cladocalyx	20.9	good	fair	codominant trunks
786	Sugar gum	Eucalyptus cladocalyx	19.5	good	fair	codominant trunks
787	Sugar gum	Eucalyptus cladocalyx	33.9	good	good	
788	California fan palm	Washingtonia filifera	19.5	good	good	
789	Red river gum	Eucalyptus camaldulensis	11.5	fair	fair	some crown dieback, codominant truks
790	Sugar gum	Eucalyptus cladocalyx	17.5	good	fair	codominant trunks
791	Sugar gum	Eucalyptus cladocalyx	34.2	good	fair	codominant trunks
792	Sugar gum	Eucalyptus cladocalyx	26.9	good	good	
793	Sugar gum	Eucalyptus cladocalyx	35.0	good	fair	poor attachment angles on some limbs
794	Sugar gum	Eucalyptus cladocalyx	21.0	good	fair	significant lean
795	Sugar gum	Eucalyptus cladocalyx	27.6	fair	fair	heartwood
796	California fan palm	Washingtonia filifera	15.5	good	good	
797	Sugar gum	Eucalyptus cladocalyx	38.8	good	fair	codominant trunks
798	Sugar gum	Eucalyptus cladocalyx	21.7	fair	fair	significant crown dieback, apparently self prunes excessively
799	California fan palm	Washingtonia filifera	18.0	good	good	
800	Sugar gum	Eucalyptus cladocalyx	32.4	good	fair	codominant trunks
801	Sugar gum	Eucalyptus cladocalyx	12.8	fair	good	some crown dieback
802	Sugar gum	Eucalyptus cladocalyx	22.9	good	fair	codominant trunks
803	Sugar gum	Eucalyptus cladocalyx	28.5	good	fair	codominant trunks
804	Sugar gum	Eucalyptus cladocalyx	18.9	good	good	
805	Sugar gum	Eucalyptus cladocalyx	17.0	good	fair	codominant trunks
806	California fan palm	Washingtonia filifera	19.3	good	good	
807	California fan palm	Washingtonia filifera	15.7	good	good	
808	California fan palm	Washingtonia filifera	14.7	good	good	
809	California fan palm	Washingtonia filifera	17.1	good	good	
810	California fan palm	Washingtonia filifera	18.2	good	good	
811	California fan palm	Washingtonia filifera	16.5	good	good	
812	California fan palm	Washingtonia filifera	12.2	good	good	
813	California fan palm	Washingtonia filifera	13.5	good	good	
814	California fan palm	Washingtonia filifera	13.8	good	good	

Tag No.	Species	Botanical name	DBH (inches)	General Health	General Structure	Notes
815	California fan palm	Washingtonia filifera	15.3	good	good	
816	California fan palm	Washingtonia filifera	16.1	good	good	
817	California fan palm	Washingtonia filifera	16.0	good	good	
818	Sugar gum	Eucalyptus cladocalyx	21.1	good	fair	1 dead limb
819	Sugar gum	Eucalyptus cladocalyx	19.4	good	fair	1 broken limb

Dana Point Harbor Arborist Report

Appendix B: Detailed Inset Maps 11" x 17"





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01210080 • 11/2011 | 4a_tree_inset.mxd





Appendix C: Representative Photographs



Photograph 1: Monument planter with Canary Island Palms. Trees 349, 350, and 351 in Area 1.



Photograph 2: Representative Red Gum Tree # 230 in Area 1.



Appendix C Site Photographs 1 and 2



Photograph 3: Representative Sugar Gum Tree # 226 in Area 1



Photograph 4: Representative Coast Coral Tree #101 in Area 2





Photograph 5: Tree #101 in Area 2. Deatail of limb damage



Photograph 6: Representative Sugar GumTree # 108 in Area 2





Photograph 7: Representative Sugar Gum Tree #133 in Area 2



Photograph 8: Representative view of Area 2





Photograph 9: Representative Red flowering gum Tree #118 in Area 2

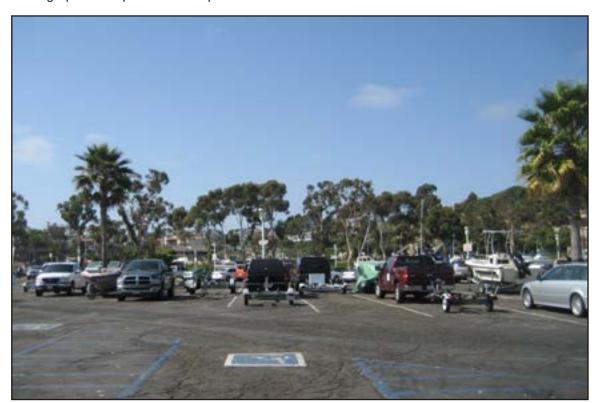


Photograph 10: Representative Sugar Gum Tree #326 in Area 3





Photograph 11: Representative Spotted Gum Tree #323 in Area 3



Photograph 12: Representative trees in Area 3





Photograph 13: Representative trunk damage on Tree #494 in Area 6



Photograph 14: Codominant trunks on Tree #494 in Area 6





Photograph 15: Representative Red flowering gum Tree #496 in Area 6



Photograph 16: Representative American sycamore Tree #527 in Area 7





Photograph 17: Representative California sycamore Tree #525 in area 7

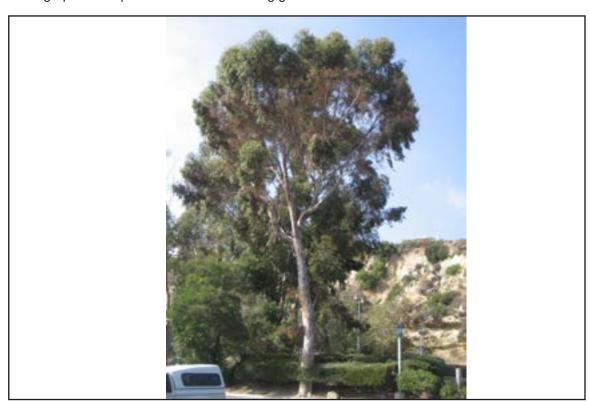


Photograph 18: Represenative view of Area 7





Photograph 19: Represenative Red flowering gum Tree #564 in Area 8



Photograph 20: Represenative Sugar gum Tree #593 in Area 8





Photograph 21: Represenative view of Area 8



Photograph 22: Representative Spotted gum Tree #589 in Area 8





Photograph 23: Sugar gum Tree #589 detail of trunk damage, fungus, and algae due to excessive moisture



Photograph 24: Representative view of Area 9



Appendix C Site Photographs 23 and 24



Photograph 25: Representative view of Area 11



Photograph 26: Representative Sugar gum Tree #736 in Area 15





Photograph 27: Representative view of Area 15



Photograph 28: Representative view of Area 16





Photograph 29: Representative Coast coral Tree #780 in Area 16



Photograph 30: Representative Sugar gum Tree #784 in Area 16





Appendix D: Suitable Replacement Tree Species Table

Common Name	Botanical Name	Height (ft)	Minimum parkway size (ft)	Form	Irrigation	Comments	Litter	Fruit size (in)
San Jose Hesper					moist to dry,	Good for streets, medians,		
palm	Brahea brandegeei	50	2	Fan palm	drought tolerant	parks, lawns	wet fruit	0.5-1.5
					moist to dry,	Good for streets, medians,	flowers,	
Lemon bottlebrush	Callistemon citrinus	25	2	Evergreen	drought tolerant	parks, lawns	nectar	0.25-0.5
Seaside	Pittosporum				moist, drought	Good for streets, medians,		
pittosporum	crassifolium	25	2	Evergreen	tolerant	parks, lawns	dry fruit	0.5-1.5
Scrub oak	Quercus dumosa	20	2	Evergreen	moist to dry	Good for streets, medians, parks, lawns	dry fruit	0.25-0.5
	Syagrus					Good for streets, medians,	wet fruit,	
Queen palm	romanzoffianum	50	2	Evergreen	well drained	parks, lawns	leaves	0.5-1.5
Windmill palm	Trachycarpus fortunei	30	2	Fan palm	moist	Good for streets, medians, parks, lawns	dry fruit	0.25-0.5
Chinese hybiscus	Hibiscus rosa- sinensis	20	2	Evergreen	moist	Good for streets, medians, parks, lawns	dry fruit	0.5-1.5
King Palm	Archontophoenix cunninghamiana	40	3	Feather palm	moist	Good for streets, medians, parks, lawns, group planting	wet fruit, leaves	0.5-1.5
Guadalupe Palm	Brahea edulis	30	3	Fan palm	moist to dry, drought tolerant	Good for streets, medians, parks, lawns	wet fruit	0.5-1.5
Sweetshade	Hymenosporum flavum	40	3	Evergreen	moist	Good for streets, medians, parks, lawns, group planting	dry fruit	0.5-1.5
Variegatum Japanese Privet	Ligustrum japonicum 'Variegatum'	25	3	Semi- evergreen	well drained	Good for streets, medians, parks, lawns	none	0.25-0.5
Davidson Hardy Glossy Privet	Ligustrum lucidum 'Davidson Hardy'	25	3	Semi- evergreen	well drained	Good for streets, medians, parks, lawns	none	0.25-0.5
Tricolor Glossy Privet	Ligustrum lucidum 'Tricolor'	25	3	Semi- evergreen	well drained	Good for streets, medians, parks, lawns	none	0.25-0.5
Golden trumpet tree	Handroanthus chrysotrichus	30	3	Nearly evergreen	moist to dry, well drained	Good for streets, medians, parks, lawns	dry fruit	> 3.0
Gold medallion tree	Cassia leptophylla	25	4	Nearly evergreen	moist to dry	Good for streets, medians, parks, lawns	dry fruit	> 3.0
Southern Magnolia 'Little gem'	Magnolia grandiflora 'Little gem'	20	4	Evergreen	moist, well drained	Good for streets, medians, parks, lawns	dry fruit, leaves	> 3.0

Common Name	Botanical Name	Height (ft)	Minimum parkway size (ft)	Form	Irrigation	Comments	Litter	Fruit size (in)
Laurel Cherry 'Bright N Tight'	Prunus caroliniana 'Bright N Tight'	25	4	Evergreen	moist, well drained	Good for streets, medians, parks, lawns	dry fruit, leaves	0.5-1.5
Weeping bottlebrush	Callistemon viminalis	30	5	Evergreen	moist to dry, drought tolerant	Good for streets, medians, parks, lawns	flowers, nectar	0.25-0.5
Cape Chestnut	Calodendrum capense	30	5	Semi- evergreen	moist, well drained	Good for streets, medians, parks, lawns	flowers, dry fruit	1.5-3.0
Sweet bay	Laurus nobilis	40	5	Evergreen	moist to dry	Good for streets, medians, parks, lawns	dry fruit	0.25-0.5
Southern Magnolia Glen St. Mary'	Magnolia grandiflora 'Glen St. Mary'	25	5	Evergreen	moist, well drained	Good for streets, medians, parks, lawns	dry fruit, leaves	> 3.0
Shore pine	Pinus contorta	35	5	Evergreen	moist	Good for streets, medians, parks, lawns	dry fruit	0.5-1.5
African sumac	Rhus lancea	30	5	Evergreen	moist to dry, drought tolerant	Good for streets, medians, parks, lawns	dry fruit	0.25-0.5
Elegant Brisbane box	Tristania laurina 'Elegans'	25	5	Evergreen	moist	Good for streets, medians, parks, lawns	dry fruit	0.25-0.5
Cajeput tree	Melaleuca quinquinervia	35	6	Evergreen	moist to dry, drought tolerant	Good for streets, medians, parks, lawns	dry fruit	0.25-0.5
Holly oak	Quercus ilex	45	6	Evergreen	moist to dry	Good for streets, medians, parks, lawns	dry fruit	0.5-1.5
Bishop pine	Pinus muricata	50	7	Evergreen	moist to dry	Good for streets, medians, parks, lawns	dry fruit	1.5-3.0
Tipu tree	Tipuana tipu	25	8	Semi- evergreen	moist to dry	Good for medians, parks, lawns	flowers, dry fruit	1.5-3.0
Southern Magnolia 'Bracken's Brown Beauty'	Magnolia grandiflora 'Bracken's Brown Beauty'	50	10	Evergreen	moist, well drained	Good for streets, medians, parks, lawns	dry fruit, leaves	> 3.0
Torrey pine	Pinus torreyana	65	10	Evergreen	moist to dry, drought tolerant	Appropriate for replacing heronry trees	dry fruit	> 3.0

Appendix E: ISA Trees are Good Website Print-outs: Pruning Young Trees and Pruning Mature Trees

TREES Fun Facts Tree Care Frequently Information Asked Questions Media Source Care Service Resources
TREE CARE INFORMATION

Why Hire an Arborist

Benefits of Trees

Value of Trees

Tree Selection

Buying High Quality Trees

Avoiding Tree and Utility Conflicts

New Tree Planting

Mature Tree Care

Plant Health Care

Palms

Trees and Turf

Proper Mulching Techniques

Pruning Young Trees

Pruning Mature Trees

Why Topping Hurts Trees

Insect and Disease Problems

Recognizing Tree Hazards

Avoiding Tree Damage During Construction

Treatment of Trees Damaged by Construction

Contact Us

Search



Home > Tree Care Information > Pruning Young Trees.

Pruning Young Trees

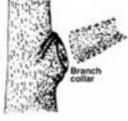
Proper pruning is essential in developing a tree with a strong structure and desirable form. Trees that receive the appropriate pruning measures while they are young will require little corrective pruning when they mature.

Keep these few simple principles in mind before pruning a tree:

- Each cut has the potential to change the growth of the tree. Always have a purpose in mind before making a cut.
- Proper technique is essential. Poor pruning can cause damage that lasts for the life of the tree. Learn where and how to make the cuts before picking up the pruning shears.
- Trees do not heal the way people do. When a tree is wounded, it must grow over and compartmentalize the wound. As a result, the wound is contained within the tree forever.
- Small cuts do less damage to the tree than large cuts. For that reason, proper pruning (training) of young trees is critical. Waiting to prune a tree until it is mature can create the need for large cuts that the tree cannot easily close.

Making The Cut

Where you make a pruning cut is critical to a tree's response in growth and wound closure. Make pruning cuts just outside the branch collar. Because the branch collar contains trunk or parent branch tissues, the tree will be damaged unnecessarily if you remove or damage it. In fact, if the cut is large, the tree may suffer permanent internal decay from an improper pruning cut.



Pruning cuts should be made just outside the branch collar.

If a permanent branch is to be shortened, cut it back to branch collar.

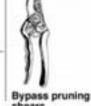
a lateral branch or bud. Internodal cuts, or cuts made between buds or branches, may lead to stem decay, sprout production, and misdirected growth.

Pruning Tools

When pruning trees, it is important to have the right tool for the job. For small trees, most of the cuts can be made with hand pruning shears (secateurs). The scissor-type, or bypass blade hand pruners, are preferred over the anvil type. They make cleaner, more accurate cuts. Cuts larger than one-half inch in



Cuts made along a branch should be made at a lateral branch or bud.



shears

diameter should be made with lopping shears or a pruning saw.

Never use hedge shears to prune a tree. Whatever tool you use, make sure it is kept clean and sharp.

News

What is an Arborist and How Can You Find One? From Planet Green a Discovery Company MORE >>

Green Parking II: Putting Parking Lots to Work

Green parking lots are defined as those that are designed to do environmental work. Parking lots should be designed to reduce the use of energy, improve environmental quality and to ensure more healthy conditions for people. Further, parking lots should be planned and designed to reflect regional landscape types. Plant materials and other materials of construction must be used in ways that will support this objective. MORE >>

NADF Hardiness Zone Map Find out the right tree to plant where you live MORE >>

Hot Topics

"Hot Topic" press releases fro the USDA newsroom ranging from current pest alerts for specific regions of the United States to new trends in disease prevention and tree and plant care. MORE >>

Don't Move Firewood!

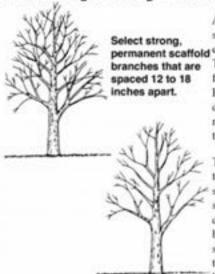
Camping Season is fast approaching. Please remember to not transport firewood. Tree-killing insects and diseases can lurk in firewood. These insects and diseases can't move far on their own, but when people move firewood they can jump hundreds of miles. New infestations destroy our forests, property values, and cost huge sums of money to control. MORE >>>

National Tree Benefits Calculator

Make a simple estimation of the benefits individual street-side trees provide. With inputs of location, species and tree size, users will get an understanding of the environmental and

1 of 4 9/20/2011 12:33 PM

Establishing a Strong Scaffold Structure



A good structure of primary scaffold branches should be permanent scaffold established while the tree is young The scaffold branches provide the framework of the mature tree. Properly trained young trees will develop a strong structure that requires less corrective pruning as they mature.

> The goal in training young trees is to establish a strong trunk with sturdy, well-spaced branches. The strength of the branch structure depends on the relative sizes of the branches, the branch angles, and the spacing of the limbs. Naturally, those factors vary with the growth habit of the tree. Pin oaks and

sweetgums, for example, have a conical shape with a central leader. Elms and live oaks are often wide-spreading without a central leader. Other trees, such as lindens and Bradford pears, are densely branched. Good pruning techniques remove structurally weak branches while maintaining the natural form of the tree.

Trunk Development

For most young trees, maintain a single dominant leader growing upward. Do not prune back the tip of this leader. Do not allow secondary branches to outgrow the leader. Sometimes a tree will develop double leaders known as co-dominant stems. Co-dominant stems can lead to structural weaknesses, so it is best to remove one of the When co-dominant stems develop, bark stems while the tree is young.



may become "included" in the crotch. It is best to prune one of the stems while the tree is young.

The lateral branches growing on the sides contribute to the development of a sturdy well-tapered trunk. It is important to leave some of these lateral branches in place, even though they may be pruned out later. These branches, known as temporary branches, also help protect the trunk from sun and mechanical injury. Temporary branches should be kept short enough not to be an obstruction or compete with selected permanent branches.

Permanent Branch Selection



By and along the trunk as on in the tree on the left.

Nursery trees often have low branches that may make the tree appear well-proportioned when young, but low branches are seldom appropriate for large-growing trees in an urban environment. How a young tree is trained depends on its primary function in the landscape. For example, street trees must be pruned so that they allow at least 16 feet of clearance for traffic.

economic value trees provide on an annual basis. For more detailed information on urban and community forest assessments, visit the i-Tree website. MORE >>

National Register of Big Trees

Big trees are symbols of all the good work trees do for the quality of the environment-and our quality of life. MORE >>



"The wonder is that we can see these trees and not wonder more." - Ralph Waldo Emerson

Resources

Pruning Young Trees Brochure



Available through the ISA Web store

Help Trees Take Shape: **Prune Properly**

In search of a strong structure and a desirable form ... for your tree? If so, prune your trees when they are young, MORE

2 of 4 9/20/2011 12:33 PM Most landscape trees require only about

8 feet of clearance.

The height of the lowest permanent branch is determined by the tree's intended function and location in the landscape. Trees that are used to screen an unsightly view or provide a wind break may be allowed to branch low to the ground. Most large-growing trees in the landscape must eventually be pruned to allow head clearance.

The spacing of branches, both vertically and radially, in the tree is very important. Branches selected as permanent scaffold branches must be well-spaced along the trunk. Maintain radial balance with branches growing outward in each direction.

A good rule of thumb for the vertical spacing of permanent branches is to maintain a distance equal to 3 percent of the tree's eventual height. Thus, a tree that will be 50 feet tall should have permanent scaffold branches spaced about 18 inches apart along the trunk. Avoid allowing two scaffold branches to arise one above the other on the same side of the tree.

Some trees have a tendency to develop branches with narrow angles of attachment and tight crotches. As the tree grows, bark can become enclosed deep within the crotch between the branch and the trunk. Such growth is called included bark. Included bark weakens the attachment of the branch to the trunk and can lead to branch failure when the tree matures. You should prune branches with weak attachments while they are young.

Avoid overthinning the interior of the tree. The leaves of each branch must manufacture enough food to keep that branch alive and growing. In addition, each branch must contribute food to grow and feed the trunk and roots. Removal of too many leaves can "starve" the tree, reduce growth, and make the tree unhealthy. A good rule of thumb is to maintain at least half the foliage on branches arising in the lower two-thirds of the tree.

Newly Planted Trees

Pruning of newly planted trees should be limited to corrective pruning. Remove torn or broken branches, and save other pruning measures for the second or third year.

The belief that trees should be pruned when planted to compensate for root loss is misguided. Trees need their leaves and shoot tips to provide food and the substances that stimulate new root production. Unpruned trees establish faster with a stronger root system than trees pruned at the time of planting.

Wound Dressings

Wound dressings were once thought to accelerate wound closure, protect against insects and diseases, and reduce decay.

However, research has shown that dressings do not reduce decay or speed closure and rarely prevent insect or disease infestations. Most experts recommend that wound dressing not be used. If a dressing must be used for cosmetic purposes, use a thin coating of a material that is not toxic to the plant.

This brochure is one in a series published by the International Society of Arboriculture as part of its Consumer Information Program. You may have additional interest in the following titles currently in the series:

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Appendix F: Disclaimer

DISCLAIMER

Arborists are tree specialists who use their education, knowledge, training, experience, and research to examine trees and woodlands. Arborists recommend measures to enhance the beauty and health of trees and forests, while attempting to reduce the risk of living near them. Clients may choose to accept or disregard the recommendations of the arborist or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi and other forces of nature. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature including, without limitation, storms of sufficient strength, which can cause even a healthy tree to fail. Any entity who develops land and builds structures with a tree in the vicinity should be aware and inform future residents of the risks of living with trees and this arborists disclaimer.

Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise remedial treatments, like medical care, cannot be guaranteed. In addition, construction activities are hazardous to trees and cause many short and long-term injuries, which can cause trees to die or topple either in the short term or over many years or decades.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborists services, such as property boundaries, property ownership, disputes between neighbors and other issues. Consulting arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist by the client. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Neither the author nor Michael Brandman Associates has assumed any responsibility for liability associated with the trees on or adjacent to this project site, their future demise and/or any damage, which may result from them. To live near trees is to accept some degree of risk.