Agenda Report

DATE: April 27, 2009

TO: CITY COUNCIL

FROM: CITY MANAGER

SUBJECT: UPDATE ON THE WORKPLAN AND TIMELINE FOR REVIEW OF ALL STREETSCAPE AND SPECIFIC PLANS ON MAJOR STREETS THAT HAVE AT LEAST SOME COMMERCIAL STORE FRONT/OFFICE ACTIVITY, WITH PARTICULAR ATTENTION TO THE CITY'S THREE BUSINESS DISTRICTS, THE ENTIRE LENGTH OF COLORADO BOULEVARD, AND THE ENTIRE LENGTH OF LAKE AVENUE, FOR CONSISTENCY WITH THE MASTER STREET TREE PLAN AND CITY ENVIRONMENTAL PLANS

RECOMMENDATION:

This item is presented for information only.

URBAN FORESTRY ADVISORY COMMITTEE REVIEW:

At their special meeting of April 20, 2009, the Urban Forestry Advisory Committee (UFAC) reviewed an analysis of the tree species for Pasadena's Streetscape Plans attached as Attachment B. In this review, the UFAC indicated that they needed more time to analyze the data and consider the current recommended species found in each of the specific plans. They felt that they needed at least one evening for the review of each of the streetscape plans. UFAC understands that the City Council is considering this information on Monday evening, and indicated that if a decision was necessary prior to investing the time to complete the more detailed review, that the City Council should make the decision without the input of the UFAC.

BACKGROUND:

On March 23, 2009, the City Council directed staff to suspend all tree planting projects in areas that are guided by specific plans while staff conducts a review of the specific plans for consistency with the Master Street Tree Plan and City Environmental Plans. Specifically affected by this planting suspension are the major streets (about 20-25) that have at least some commercial storefront/office activity, with particular attention to the

City's three Business Districts, the entire length of Colorado Boulevard, and the entire length of Lake Avenue.

Staff developed a document to conduct a preliminary review of the species identified in the specific plan areas for consistency with the Master Street Tree Plan (MSTP) and the City's Urban Environmental Accord Action Items. This review is attached as Attachment A.

Staff prepared another document that evaluates and scores various criteria of the tree species for conformance with the goals of the Urban Accords and other relevant criteria. This document further analyzed the species through a rating system that considers in more detail the growth characteristics of the tree and suitability for the climate conditions in Southern California. The evaluation provides a guideline for determining which trees would be more or less suitable as an urban street tree in Southern California. With a total possible score of 102, any tree with a rating of less than 50 is not a suitable street tree. Trees with a rating above 50 are a viable option with those trees with the highest score providing a higher level of benefit to the urban environment. Those trees with a rating in the 70 to 90 range are more beneficial and better suited than those in the 50 to 69 range. This table provides a format for review of any street tree proposed for the city and utilizes criteria incorporating the impact on infrastructure, benefit and impact on the environment, as well as the conservation and utilization of resources.

This review was provided to UFAC on April 20, 2009, and is attached as Attachment B. The information provided in Attachment B is based on information and formats gathered from sources including the Center for Urban Forestry Research at UC Davis, the USDA Forest Service, and other sources as cited in the footnote section.

Streetscape Review Workplan

The City Council further requested that staff return with a scope of work, a schedule for review, and target dates for approval by the City Council. After meeting with UFAC and hearing their comments on the staff evaluation of tree species in the specific plan areas, any review of the tree species in the business districts will include a full review of specific plans and the Master Street Tree Plan with focus on trees that are not consistent with the City of Pasadena's environmental documents, value placed on species diversity, and growth of the urban canopy.

UFAC has recommended reviewing each streetscape plan individually with impacted stakeholders. The process will occur over the next seven to nine months. These meetings will encourage participation from the affected business owners, residents and any other interested parties. City Council had asked staff to look at using outside consultants for the review and selection of trees as part of the review. There are three certified arborists on staff qualified to review the streetscape plans. There is also concern about the cost of retaining a consultant during a time when budget cuts are occurring within the Forestry Division.

It is anticipated that the review will result in recommendations for changes to the MSTP as well as having the potential for changes to one or more of the streetscape plans. Amendments to these plans will require further review by the Design Commission and the Planning Commission that could be done incrementally. This would likely involve review by Design and Planning Commissions beginning in September 2009 and continuing through to May 2010. The amendments could be presented to City Council for final review and approval within 30 days once a decision has been reached by both Commissions on each plan.

FISCAL IMPACTS:

It is anticipated that the cost of hiring a consultant will be at least $100,000. If directed by City Council, the next step would be to develop an RFP and solicitation of a consultant.

Respectfully Submitted,

for MICHAEL J. BECK
City Manager

Prepared by:

Kathleen L. Woods, Administrator
Parks & Natural Resources

Approved by:

Martin Pastucha, Director
Department of Public Works

Exhibit A
Business District
Consistency Plan

Plan Area	Streets	Specific Plan Areas Scientific Name	Common Name	Consistency with the MSTP	Inconsistency with the MSTP	Action Item 1	Action Item 2	Action Item 3	Action Item 4	Action Item 5	Action Item 6	Action Item 7	Action Item 8	Action Item 9	Action Item 10	Action Item 11	Action Item 12	Action Item 13	Action Item 14	Action Item 15	Action Item 16	Action Item 17	Action Item 18	Action Item 19	Action Item 20	Action Item 21
Old Pasadena																										
	Green	Ficus microcarpa	Indian Laurel Fig	√		N/A	√		N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Colorado	Ginkgo biloba	Maidenhair Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Fair Oaks; Raymond	Lagerstroemia indica	Crape Myrtle		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Arroyo Parkway	Podocarpus gracilior	Yew Pine	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
	Colorado	Syagrus romanzoffianum	Queen Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Dayton; Raymond	Tabebuia chrysotricha	Golden Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	De Lacey; Dayton; Union; Holly;	Tabebuia ipe	Pink Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Freeway Over Passes	Washingtonia filifera	California Fan Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Fair Oaks	Washingtonia robusta	Mexican Fan Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
Playhouse																										
	Green	Ficus microcarpa	Indian Laurel Fig	√		N/A	√		N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Colorado	Ginkgo biloba	Maidenhair Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Oakland	Lagerstroemia indica	Crape Myrtle	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Union	Platanus acerifolia	London Plane Tree	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
	Hudson	Quercus virginiana	Southern Live Oak	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
	Madison	Tabebuia ipe	Pink Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Oak Knoll	Tabebuia ipe	Pink Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Colorado	Washingtonia robusta	Mexican Fan Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	El Molino	Washingtonia robusta	Mexican Fan Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
Civic Center																										
	Euclid	Chitalpa taskentensis	Chitalpa	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Colorado	Ginkgo biloba	Maidenhair Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Colorado	Washingtonia robusta	Mexican Fan Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Marengo	Jacaranda mimosafolia	Jacaranda		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A		N/A	N/A		N/A	N/A	N/A			N/A	
	Around City Hall	Magnolia grandiflora	Southern Magnolia	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
	Walnut	Platanus acerifolia	London Plane Tree	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Los Robles	Pyrus calleryana	Callery Pear	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Romona	Tabebuia chrysotricha	Golden Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Union	Tabebuia ipe	Pink Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Garfield	Magnolia grandiflora	Southern Magnolia	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Holly	Quercus engelmannii	Mesa Oak	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
	Holly	Calocedrus decurrens	Incense Cedar	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
	Green	Ficus microcarpa	Indian Laurel Fig	√		N/A	√		N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Euclid	Ficus microcarpa	Indian Laurel Fig	√		N/A	√		N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
East Colorado																										
	Colorado (Catalina - Sycamore)	Washingtonia robusta	Mexican Fan Palm	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Colorado (Sierra Madre - Sycamore)	Pistacia chinensis; Koelreuteria bipinnata	Chinese Pistache; Chinese Flame Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Colorado (Catalina - Sierra Madre)	Tabebuia ipe	Pink Trumpet Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Allen	Quercus agrifolia	Coast Live Oak	√		N/A	√	√	N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
East Pasadena																										
	Sierra Madre Villa Dr	Magnolia grandiflora	Southern Magnolia	√		N/A			N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Sierra Madre Blvd	Geijera parviflora	Australian Willow	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		1	N/A	
	Altadena	Quercus SP	Oak SP	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
	San Gabriel	Eriobotrya deflexa	Bronze Loquat	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Rosemead	Liquidambar styraciflua 'Rotundiloba'	American Sweet Gum	√		N/A			N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Foothill	Quercus SP	Oak SP	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
	Walnut	Melaleuca quinquenervia	Cajeput Tree	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Halstead	Magnolia grandiflora	Southern Magnolia	√		N/A			N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	

Exhibit A
Business District
Consistency Plan

		Specific Plan Areas		Consistency with the MSTP	Inconsistency with the MSTP	Action Item 1	Action Item 2	Action Item 3	Action Item 4	Action Item 5	Action Item 6	Action Item 7	Action Item 8	Action Item 9	Action Item 10	Action Item 11	Action Item 12	Action Item 13	Action Item 14	Action Item 15	Action Item 16	Action Item 17	Action Item 18	Action Item 19	Action Item 20	Action Item 21
West Gateway																										
South Fair Oaks																										
	Plant Palette	Lagerstroemia indica	Crape Myrtle	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
		Liquidambar styraciflua 'Rotundiloba'	American Sweet Gum		√	N/A	√		N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
		Pinus canariensis	Canary Island Pine		√	N/A	√	√	N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
		Platanus racemosa	Western Sycamore		√	N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
		Quercus engelmannii	Mesa Oak		√	N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
		Quercus suber	Cork Oak	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
		Washingtonia filifera	California Fan Palm		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Alternate																									
		Albizia julibrissin	Silk Tree		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
		Bauhinia variegata	Purple Orchid Tree		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
		Bauhinia x blakeana	Hong Kong Orchid Tree		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
		Prunus cerasifera	Purple-leaf Plum		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
North Lake																										
		Platanus racemosa	Western Sycamore	√		N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
		Quercus agrifolia	Coast Live Oak	√		N/A	√	√	N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
Fair Oaks -Orange Grove																										
	Fair Oaks North of Orange Grove	Quercus agrifolia	Coast Live Oak	√		N/A	√	√	N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√
	Fair Oaks South of Orange Grove	Lagerstroemia indica	Crape Myrtle	√		N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
	Alternate subject to approval by UFAC																									
		Cercis canadensis + cvs	Eastern Redbud		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
		Cercis occidentalis	Western Redbud		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A		√	N/A	
		Platanus racemosa	Western Sycamore		√	N/A	√	√	N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√		N/A	√
		Arbutus unedo	Strawberry Tree		√	N/A			N/A	N/A	N/A	N/A	√	N/A	N/A	√	N/A	N/A		N/A	N/A	N/A			N/A	
	Orange Grove																									
		Quercus agrifolia	Coast Live Oak	√		N/A	√	√	N/A	N/A	N/A	N/A		N/A	N/A	√	N/A	N/A	√	N/A	N/A	N/A	√	√	N/A	√

Action 1 Renewable Energy - Adopt and implement a policy to increase the use of renewable energy to 10% of the city's peak load by 2012

Action 2 Energy Efficiency - Adopt and implement a policy to reduce the city's peak load by 10% through energy efficiency, shifting the timing of energy demands and conservation measures by 2012

Action 3 Climate Change - Adopt a citywide greenhouse gas reduction plan that reduces the jurisdiction's emissions by 25% by 2030 and which includes a system for accounting and auditing greehouse gas emissions.

Action 4 Zero Waste - Establish a policy to achieve zero waste to landfills and incinerators by 2040

Action 5 Product Waste - Adopt a citywide law that reduces the ust of a disposable toxic, or non-renewable product category by at least 50% by 2012

Action 6 Consumer Waster - Implement "user-friendly recyclying and composting programs with the goal of reducing by 20% per capita solid waste disposal to landfill and incineration by 2012

Action 7 Green Building - Adopt a policy that mandates a gree building rating system that applies to all new municipal buildings.

Action 8 Urban Planning - Adopt urban planning principles and practices that advance higher density, mixed use, walkable, bikeable disabled-accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration.

Action 9 Environmental Jobs - Adopt a policy or implememnt a program that creates environmentally beneficial jobs in low income neighborhoods

Action 10 Parks - Ensure that there is an accessibile public or recrational open space within half-a-kilometer (.31 miles) of every resident by 2015

Action 11 Tree Canopy - Perform an inventory of existing canopy coverage in the city, and then establish a goal based on ecological and community considerations to plant and maintain canopy coverage in not less that 50% of all available sidewalk and planting areas.

Action 12 Habitat Protection - Pass legislation that protects critical habitat corridors an dother key habitat characteristics from unsustainable development

Action 13 Public Transportation - Develop and implement a policy which expands affordable public transportation to within 1/2 kilometer of all city residents by 2015

Action 14 Clean Vehicles - Eliminate leaded gasoline, phase down sulfur levels in fuels concurrent with using advaced emission controls on buses, taxis, and public fleets, to reduce particulate and smog-forming emissions 50% by 2012.

Action 15 Reduce Congestion - Implement a policy to reduce by 10% commute trips by single occupancy vehicles by 2012

Action 16 Toxics Reduction - Every year, identify one product, chemical or compound that is used within the city that represents the greates risk to human health and adopt a law and provide incentives to reduce or eliminate its use by the municiple govt.

Action 17 Organic Foods - Promote the public health and environmental benefits of supporting locally grown organic foods. Ensure 20% of all city facilities (including schools) serve organic food by 2012

Action 18 Clean Air - Establish an Air Quality Index to measure the level of air pollution and set the goal of reducing by 10% number of days categorized as unhealthy by 2012

Action 19 Water Efficiency - Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2025 For cities with potable water consumptions greater than 100 liters per capita per day, adopt and implement policies to reduce consuption by 10% by 2015.

Action 20 Water Conservation - Protect the ecological intergrity of the city's primary drinking water sources.

Action 21 Wasterwater - Adopt municipal waste water management guidelines and reduce the volume of untreated wastewater discharges by 10% by 2012 through the expanded use of recycled water and the implement of a sustainble urban watershed planning process that included participants of all affected communities and is based on sound economic, social and environmental principles.

Exhibit B
Review and Analysis of Tree Species in Specific Plan Areas

				Footnote	a	Pest Only	b	c	d	e	f	g	h	i	j	k	l	
				Weighting	5		3	5	3	3	5	1	1	3	1	3	1	102
				Tree	Dis./Pest Susceptibility	Pasadena's Result May Differ	Degree of litter	Water Needs	Pruning Needs	Branch Strength	Root Damage Potential	BVOC Emissions	Aesthetic Value	Micro Climate Benefit	Air Quality	Storm Water	CO2 Reduction	Total*
Old Pasadena																		
	Green	Ficus microcarpa	Indian Laurel Fig	BEL	2		3	1	1	1	1	1	2	3	2	2	2	**57.00**
	Colorado	Ginkgo biloba	Maidenhair Tree	BDM	2		3	3	3	3	3	2	3	2	2	2	2	**88.00**
	Fair Oak; Raymond	Lagerstroemia indica	Crape Myrtle	BDS	1	*	2	3	2	2	3	3	3	1	1	1	1	**67.00**
	Arroyo Parkway	Podocarpus gracilior	Yew Pine	BEL	2		3	3	1	3	2	3	1	3	3	3	3	**84.00**
	Colorado	Syagrus romanzoffianum	Queen Palm	PES	1	*	1	2	1	1	3	1	2	1	1	1	1	**50.00**
	Dayton; Raymond	Tabebuia chrysotricha	Golden Trumpet Tree	BDM	2	*	2	2	3	1	3	2	3	1	1	1	1	**66.00**
	De Lacey; Dayton; Union; Holl	Tabebuia ipe	Pink Trumpet Tree	BDM	2	*	2	2	3	1	3	2	3	1	1	1	1	**66.00**
	Freeway Over Passes	Washingtonia filifera	California Fan Palm	PEL	1		1	3	1	1	3	1	2	1	1	1	1	**55.00**
	Fair Oak	Washingtonia robusta	Mexican Fan Palm	PEL	1		1	3	1	1	3	1	2	1	1	1	1	**55.00**
Playhouse																		
	Green	Ficus microcarpa	Indian Laurel Fig	BEL	2		3	1	1	1	1	1	2	3	2	2	2	**57.00**
	Colorado	Ginkgo biloba	Maidenhair Tree	BDM	2		3	3	3	3	3	2	3	2	2	2	2	**88.00**
	Oakland	Lagerstroemia indica	Crape Myrtle	BDS	1	*	2	3	2	2	3	3	3	1	1	1	1	**67.00**
	Union	Platanus acerifolia	London Plane Tree	BDL	2	*	2	1	2	2	2	2	2	3	3	3	3	**71.00**
	Hudson	Quercus virginiana	Southern Live Oak	BEL	2		2	2	3	3	3	1	2	3	3	3	3	**86.00**
	Madison	Tabebuia ipe	Pink Trumpet Tree	BDM	2	*	2	2	3	1	3	2	3	1	1	1	1	**66.00**
	Oak Knoll	Tabebuia ipe	Pink Trumpet Tree	BDM	2	*	2	2	3	1	3	2	3	1	1	1	1	**66.00**
	Colorado	Washingtonia robusta	Mexican Fan Palm	PEL	1		1	3	1	1	3	1	2	1	1	1	1	**55.00**
	El Molino	Washingtonia robusta	Mexican Fan Palm	PEL	1		1	3	1	1	3	1	2	1	1	1	1	**55.00**
Civic Center																		
	Euclid	Chitalpa taskentensis	Chitalpa	BDS	1	*	2	3	2	2	3	3	3	1	1	1	1	**67.00**
	Colorado	Ginkgo biloba	Maidenhair Tree	BDM	2		3	3	3	3	3	2	3	2	2	2	2	**88.00**
	Marengo	Jacaranda mimosafolia	Jacaranda	BDM	2	*	1	1	1	2	2	3	3	2	2	2	2	**59.00**
	Around City Hall	Magnolia grandiflora	Southern Magnolia	BEL	1		2	1	3	2	1	2	3	2	2	2	2	**57.00**
	Walnut	Platanus acerifolia	London Plane Tree	BDL	2	*	2	1	2	2	2	2	2	3	3	3	3	**71.00**
	Los Robles	Pyrus calleryana	Callery Pear	BDM	1	*	2	3	1	2	2	3	2	2	2	2	2	**66.00**
	Romona	Tabebuia chrysotricha	Golden Trumpet Tree	BDM	2	*	2	2	3	1	3	2	3	1	1	1	1	**66.00**
	Union	Tabebuia ipe	Pink Trumpet Tree	BDM	2	*	2	2	3	1	3	2	3	1	1	1	1	**66.00**
	Colorado	Washingtonia robusta	Mexican Fan Palm	PEL	1		1	3	1	1	3	1	2	1	1	1	1	**55.00**
	Garfield	Magnolia grandiflora	Southern Magnolia	BEL	1		2	1	3	2	1	2	3	2	2	2	2	**57.00**
	Holly	Quercus engelmannii	Mesa Oak	BDL	2		2	3	3	3	3	1	2	3	3	3	3	**91.00**
	Holly	Calocedrus decurrens	Incense Cedar	CEL	2	*	2	1	3	3	1	1	2	3	3	3	3	**71.00**
	Green	Ficus microcarpa	Indian Laurel Fig	BEL	2		3	1	1	1	1	1	2	3	2	2	2	**57.00**
	Euclid	Ficus microcarpa	Indian Laurel Fig	BEL	2		3	1	1	1	1	1	2	3	2	2	2	**57.00**
East Colorado																		
	Colorado (Catalina - Sycamore)	Washingtonia robusta	Mexican Fan Palm	PEL	1		1	3	1	1	3	1	2	1	1	1	1	**55.00**
	Colorado (Sierra Madre - Sycamore)	Pistacia chinensis	Chinese Pistache	BDM	3		2	3	2	2	3	2	3	2	2	2	2	**84.00**
		Koelreuteria bipinnata	Chinese Flame Tree	BDM	1	*	2	3	2	2	2	1	3	2	2	2	2	**68.00**
	Colorado (Catalina - Sierra Madre)	Tabebuia ipe	Pink Trumpet Tree	BDM	2	*	2	2	3	1	2	2	3	1	1	1	1	**61.00**
	Allen	Quercus agrifolia	Coast Live Oak	BEL	1		2	3	3	3	3	1	2	3	3	3	3	**86.00**
East Pasadena																		
	Sierra Madre Villa Dr	Magnolia grandiflora	Southern Magnolia	BEL	1	*	2	1	3	2	1	2	3	2	2	2	2	**57.00**
	Sierra Madre Blvd	Geijera parviflora	Australian Willow	BES	1	*	2	2	3	2	3	2	1	1	1	1	1	**62.00**
	Altadena	Quercus SP	Oak SP	BEL	2		2	3	3	3	3	1	2	3	3	3	3	**91.00**
	San Gabriel	Eriobotrya deflexa	Bronze Loquat	BES	2	*	2	2	3	2	3	3	2	1	1	1	1	**69.00**
	Rosemead	Liquidambar styraciflua 'R	American Sweet Gum	BDL	1	*	1	2	1	1	1	1	3	3	1	1	1	**47.00**
	Foothill	Quercus SP	Oak SP	BEL	2		2	3	3	3	3	1	2	3	3	3	3	**91.00**
	Walnut	Melaleuca quinquenervia	Cajeput Tree	BEM	2	*	2	3	2	1	3	1	1	2	2	2	2	**73.00**
	Halstead	Magnolia grandiflora	Southern Magnolia	BEL	1	*	2	1	3	2	1	2	3	2	2	2	2	**57.00**

Exhibit B

Review and Analysis of Tree Species in Specific Plan Areas

					Footnote	a	Pest Only	b	c	d	e	f	g	h	i	j	k	l	
					Weighting	5		3	5	3	3	5	1	1	3	1	3	1	102
				Tree		Dis./Pest Susceptibility	Pasadena's Result May Differ	Degree of litter	Water Needs	Pruning Needs	Branch Strength	Root Damage Potential	BVOC Emissions	Aesthetic Value	Micro Climate Benefit	Air Quality	Storm Water	CO2 Reduction	Total*
West Gateway	No Trees Identified																		
South Fair Oaks	Plant Palette																		
		Liquidambar styraciflua 'R	American Sweet Gum	BDL	1	*	1	2	1	1	1	1	3	3	1	1	1	**47.00**
		Pinus canariensis	Canary Island Pine	CEL	2	*	1	3	2	2	2	2	1	3	3	3	3	**77.00**
		Platanus racemosa	Western Sycamore	BDL	2	*	2	2	2	2	2	2	2	3	3	3	3	**76.00**
		Quercus engelmannii	Mesa Oak	BDL	2		2	3	3	3	3	1	2	3	3	3	3	**91.00**
		Quercus suber	Cork Oak	BEL	2		2	2	3	3	3	1	2	3	3	3	3	**86.00**
		Washingtonia filifera	California Fan Palm	PEL	1	*	1	3	1	1	3	1	2	1	1	1	1	**55.00**
	Alternate	Albizia julibrissin	Silk Tree	BDL	2		2	3	2	2	2	2	2	1	1	1	1	**65.00**
		Bauhinia variegata	Purple Orchid Tree	BDS	2		1	3	2	2	3	2	3	1	1	1	1	**68.00**
		Bauhinia x blakeana	Hong Kong Orchid Tree	BDS	2		1	3	2	2	3	2	3	1	1	1	1	**68.00**
		Prunus cerasifera	Purple-leaf Plum	BDS	1		2	2	1	1	3	3	2	1	1	1	1	**55.00**
North Lake																			
		Platanus racemosa	Western Sycamore	BDL	2	*	2	2	2	2	3	2	2	3	3	3	3	**81.00**
		Quercus agrifolia	Coast Live Oak	BEL	1		2	3	3	3	3	1	2	3	3	3	3	**86.00**
Fair Oaks -Orange Grove																			
	Fair Oaks North of Orange Gr	Quercus agrifolia	Coast Live Oak	BEL	1		2	3	3	3	3	1	2	3	3	3	3	**86.00**
	Fair Oaks South of Orange Gr	Lagerstroemia indica	Crape Myrtle	BDS	1	*	2	3	2	2	3	3	3	1	1	1	1	**67.00**
	Alternate subject to approval by UFAC																		
		Cercis canadensis + cvs	Eastern Redbud	BDS	1		2	3	2	2	3	3	3	1	1	1	1	**67.00**
		Cercis occidentalis	Western Redbud	BDS	1		2	3	2	2	3	3	3	1	1	1	1	**67.00**
		Platanus racemosa	Western Sycamore	BDL	2		2	2	2	2	2	2	2	3	3	3	3	**76.00**
		Arbutus unedo	Strawberry Tree	BES	2		1	2	3	2	3	3	2	1	1	1	1	**66.00**
	Orange Grove																		
		Quercus agrifolia	Coast Live Oak	BEL	1		2	3	3	3	3	1	2	3	3	3	3	**86.00**

Footnotes

a. 1 = pest/disease sensitive, 2 = resistant, 3 = free from pests/disease (Gilman et al. 1996; Reimer 1997) * = Has a pest history in Pasadena

b. 1 = severe (fleshy leaves or pods that might cause a pedestrian hazard), 2 = significant, 3 = insignificant (regular maintenance required) (Reimer 1997; Gilman et al. 1996)

c. 1 = high water need, 2 = moderate water need, 3 = low water need (UC Cooperative Extension 2000)

d. 1 = needs pruning more frequently than 5 year cycle, 2 = regular pruning 5 year cycle, 3 = less frequent than 5 year

e. 1 = weak, 2 = medium, 3 = strong (Gilman et al. 1996; Reimer 1997)

f. 1 = high, 2 = medium, 3 = low (Reimer 1996) 88.32

g. 1 = BVOC emission > 10, 2 = 1-10, 3 < 1 g/tree/hr (Benjamin et al., 1998, ozone forming potential) Pollen and other particulates put in to the air.

h. 1 = not showy, 2 = one showy characteristic (Fall Color or Flowers), 3 = two or more showy characteristics (Fall Color and flowers) (Reimer 1997; Gilman et al. 1996)

i. 1 = low, 2 = medium, 3 = high How trees modify the climate by providing shade, lowering the air temperature through transpiration, and by providing a wind break.

j. 1 = low, 2 = medium, 3 = high Positive benefits of oxygen that trees produce.

k. 1 = low, 2 = medium, 3 = high able to take up storm water quickly.

l. 1 = low, 2 = medium, 3 = high Carbon stored in the bio mass of the tree.

* Ratings: Highest possible rating = 102; Mid range subject to review = 75 to 50; Rejected rating = less than 50

References

Gilman, E.F., H.W. Beck, D.G. Watson, P. Fowler, DL. Weigle, and N.R. Morgan. 1996. Southern Trees, 2nd Ed. University of Florida. Gainsville, FL.

Reimer, J. 1997. SelecTree: A Tree Selection System. University of California. San Luis Obispo, CA.

UC Cooperative Extension. 2000. Estimating Irrigation Water Needs of Landscape Plantings in California. California Dept. of Water Resources and U.S. Bureau of Reclamation, Sacramento, CA.

Tree Types:		**Canopy Size:**
BDL	Broadleaf Deciduous Large	40-60 Feet
BDM	Broadleaf Deciduous Medium	20-40 Feet
BDS	Broadleaf Deciduous Small	up to 20 Feet
CEL	Conifer Evergreen Large	25-40 Feet
CEM	Conifer Evergreen Medium	15-25 feet
CES	Conifer Evergreen Small	up to 15 Feet
BEL	Broadleaf Evergreen Large	40-60 Feet
BEM	Broadleaf Evergreen Medium	20-40 Feet
BES	Broadleaf Evergreen Small	up to 20 Feet
PEL	Palm Evergreen Large	75 Feet and up
PEM	Palm Evergreen Medium	25-75 Feet
PES	Palm Evergreen Small	up to 25 Feet