DOWNTOWN REDDING STREET TREE MANAGEMENT PLAN

Prepared for:

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1.0 INTRODUCTION

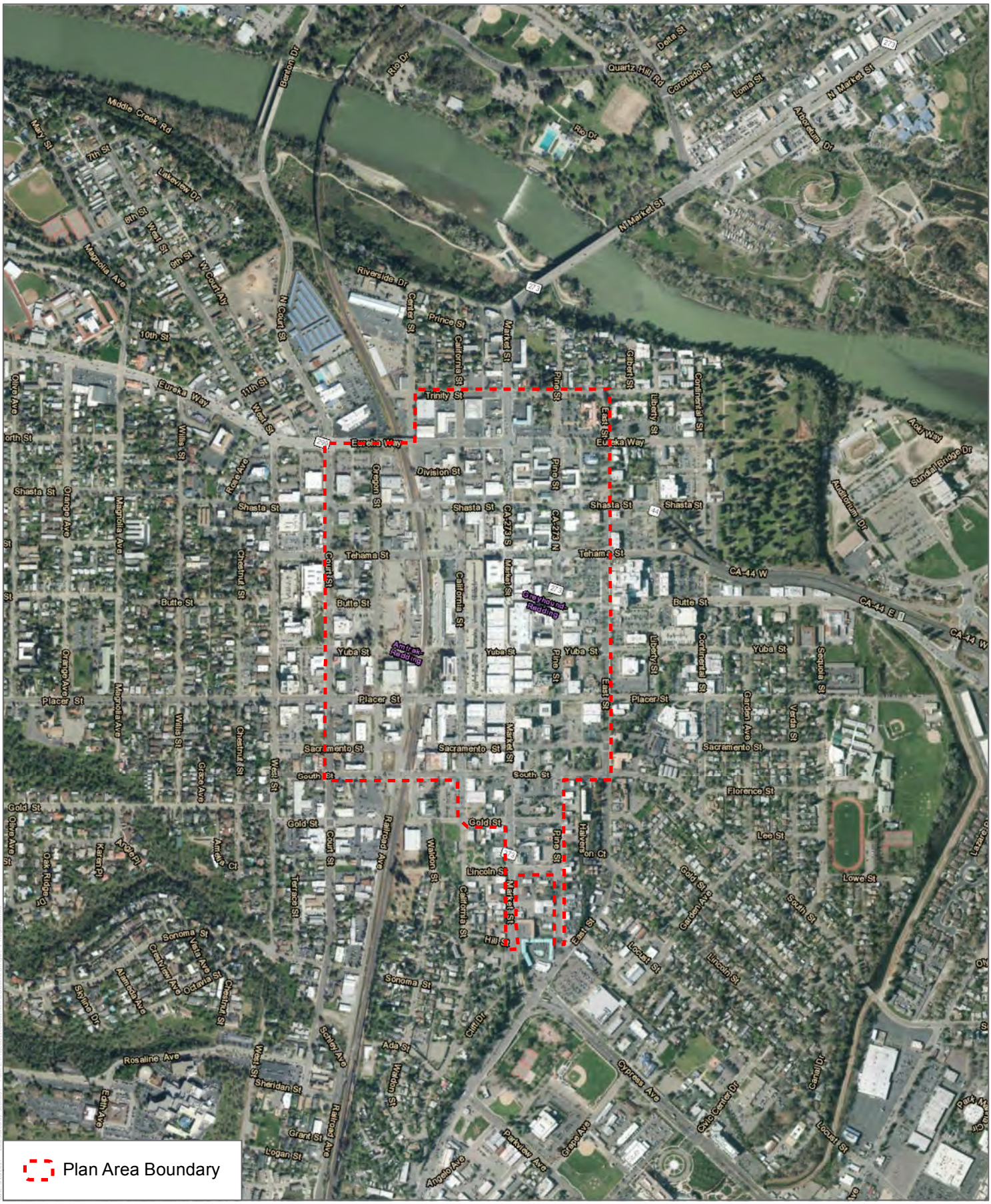
1.1 Purpose and Need

The City of Redding is aware of the need to proactively address the management of a maturing urban forest within its Downtown Core. Long-term planning for proper management of the City's trees begins with baseline information establishment, a step accomplished in development of this Street Tree Management Plan (STMP). Development of this STMP involved a detailed inventory of the City-managed Downtown Core tree population, identification of vacant tree planting sites, an analysis of tree inventory data, quantifying the environmental benefits of the Downtown Core's trees through the i-Tree software suite, evaluating the City's current tree maintenance practices and work history, and developing management recommendations for enhancing existing trees and establishing new trees in currently vacant spaces.

Current tree management practices in the City are informed by the City's Comprehensive Tree Plan, which provides tree management resources applicable to developers, utility workers, and neighboring landowners but does not include information to inform City managers of the tree population's current condition, or the necessary steps and justification for its improvement. Current City tree management efforts in the Downtown Core afford little more than essential risk management and fall short of providing adequate care. This STMP provides guidance for better management of the Downtown Core's tree population. Like any planning document, the passing of time and changing conditions will warrant updates in order to remain relevant. This STMP provides an analysis of the current urban forest, its species, conditions, infrastructure issues, and recommendations for long-term management.

1.2 Plan Area Location

This STMP covers City-managed trees located within Redding's Downtown Core (Plan area). The Plan area is situated south and west of the Sacramento River, and is bounded by Trinity Street and Highway 299 on the north, South Street on the south (with extensions down Market and Pine Streets), Court Street on the west, and East Street on the east (Figure 1). State Highways 44, 273, and 299 occur within the Plan area and trees along these road sections are subject to certain management standards outlined by the California Department of Transportation (Caltrans). The Plan area encompasses approximately 43 square blocks in the Downtown Core, representing approximately 185 acres, and includes 711 individual City-managed trees. In addition to the trees addressed in this plan, the Plan area includes a variety of landscape features common to city downtown core areas, including buildings, roads, parking areas, cycling paths, sidewalks, parks, water conveyances, and utility lines.



SOURCE: City of Redding 2017

DUDEK

0 500 1,000 Feet

FIGURE 1

Plan Area Location Map

Downtown Redding Street Tree Management Plan

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1.3 Approach and Methods Summary

The following summarizes the approach and methods used in developing this STMP, with more detailed information provided in the following sections:

- Tree Inventory and Evaluation: All City-managed trees located in the Plan area were inventoried, evaluated and mapped. Potential planting sites were also mapped and sizes and constraints documented. The data collected during this effort was used to develop the summaries and management recommendations presented herein. A community meeting was also held on June 27, 2017 to present initial findings from the tree inventory and evaluation effort. Comments provided during the community meeting were considered during preparation of this STMP and are summarized in Appendix A (Community Meeting Comment Notes).

- Analysis of Tree Inventory Data: Once collected, the tree inventory data was processed and analyzed to identify trends that may need to be addressed through management actions.

- i-Tree Analysis: An i-Tree Eco assessment of the tree inventory data was conducted to better understand the value and ecosystem services provided by the Plan area's trees.

- Data Analysis and Research: Analysis of City tree maintenance data and best management practices for urban forests was conducted to develop the management recommendations presented herein.

1.4 Summary of Observations

The following summarizes our observations based on evaluations of tree and field conditions, analysis of field-collected data, and research into current tree management practices being conducted in the Plan area. More detailed discussions of our analysis results are presented in the following Plan sections.

1. The Downtown Core tree population includes 711 trees (28 in Carnegie Park) representing 35 species and 28 genera;
2. Liquidambar trees (*Liquidambar styraciflua*) account for the largest portion of the Plan area's tree population at 17.2% (122 trees);
3. The majority of the trees (58%) are considered small trees, measuring 30 feet in height or less (413 trees);

4. Routine pruning was observed to be the most prevalent maintenance need (identified for 646 trees);
5. Eleven trees are recommended for removal;
6. A total of 164 potential tree planting sites were identified;
7. The majority of trees exhibited some sort of hardscape damage (463 trees) and many trees (and potential planting sites) presented potential overhead utility line conflicts (285 trees); and
8. The City currently provides tree maintenance in a limited, reactive manner using Parks maintenance staff.

2.0 TREE INVENTORY AND DATA ANALYSIS

2.1 Methods

2.1.1 Tree Inventory and Mapping

Dudek International Society of Arboriculture (ISA) Certified Arborists conducted an inventory of all City-managed trees in the Plan area in June 2017. Inventoried trees included those in the public right-of-way in the Downtown core and included street trees (trees typically in sidewalk cut-outs within the first 10 feet measured from curb face), parking lot trees, and park trees (Carnegie Park). Tree locations were mapped concurrently with tree attribute data collection using field tablet computers linked to the City's Geographic Information System (GIS) via the Collector for ArcGIS application. Prior to initiating field data collection efforts, Dudek coordinated with City staff to prepare the data dictionary (the interface used to collect tree data) so that it captured the data necessary to perform the analyses presented in this STMP. Development of the data dictionary was a critical step in the project planning effort and 33 attributes were collected for each tree mapped and assessed. The 33 attributes included general tree information (e.g., species, trunk diameter, general health, damage/conflicts), met the Data Collection Attributes for Urban Tree Inventories requirements set forth by the California Department of Forestry and Fire Protection (CAL FIRE) Urban Tree Inventory Grant Guidelines[1], included specific attributes necessary to perform i-Tree evaluations, and provided baseline urban forest condition information from which potential tree management and maintenance recommendations could be formulated. A listing of the 33 collected attributes is presented in Appendix B (Tree Inventory Data Attributes). The tree inventory and mapping effort also provided an opportunity to better understand tree growing environments in the Plan area, including planting area size, vertical and horizontal obstructions (e.g., power lines, buildings), and damage caused by tree growth (e.g., sidewalk lifting).

Individual tree locations are presented in Figure 2 (Tree Location Exhibit) and a summary of individual tree data is presented in Appendix C (Tree Information Matrix). A comprehensive GIS dataset of all inventoried trees and potential planting sites was also developed and delivered to the City in electronic GIS and spreadsheet format.

1 http://calfire.ca.gov/Grants/downloads/UrbanForestry/CAL%20FIRE_UCF_GRANT%20GUIDELINES_DRAFT%201-13-16.pdf

SOURCE: City of Redding 2017; Dudek 2017

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FIGURE 2-1

Tree Location Exhibit

Downtown Redding Street Tree Management Plan

SOURCE: City of Redding 2017; Dudek 2017

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0 80 160 Feet

FIGURE 2-2

Tree Location Exhibit

Downtown Redding Street Tree Management Plan

SOURCE: City of Redding 2017; Dudek 2017

DUDEK

0 80 160 Feet

FIGURE 2-3

Tree Location Exhibit

Downtown Redding Street Tree Management Plan

SOURCE: City of Redding 2017; Dudek 2017

DUDEK

0 80 160 Feet

FIGURE 2-4

Tree Location Exhibit

Downtown Redding Street Tree Management Plan

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2.1.2 Inventory Data and i-Tree Analysis

Following tree inventory efforts, all collected tree attribute data was processed and analyzed to determine any observable trends that may inform urban forest management recommendations. A summary of the different variables analyzed is presented in Section 2.2.

An analysis of the tree inventory data set was also conducted using the i-Tree Eco software package to better understand the ecosystem services provided by the Plan area's trees. The i-Tree software suite is a peer-reviewed software program developed and provided by the United States Forest Service (USFS). Eco, a component of the i-Tree software suite[2], is a tool that allows users to collect data on an entire tree population and estimate the ecosystem services that the trees provide. Ecosystem services are the environmental benefits provided by urban trees, which include reducing runoff by trapping and/or slowing rain water, sequestering atmospheric carbon, and improving air and water quality, amongst others. The ecosystem services are quantified by the iTree software, enabling the City to measure the impacts of the urban forest toward achieving multiple General Plan goals. Tree inventory data entered into the Eco software package are merged with local hourly weather and air pollution concentration data during the analysis process. These data sets make it possible to calculate structural and functional information using a series of scientific equations or algorithms. As the Plan area inventory was complete (100% inventory), Eco also calculated characteristics and ecosystem services values for each individual tree.

To initiate the i-Tree Eco analysis, Dudek entered the tree inventory data into the Eco software package. Specifically, tree identification number, species, trunk diameter, tree height, crown (tree canopy) base height, and crown width along 2 axes (North-South and East-West) were entered directly into the software data entry table. Following data entry, the i-Tree Eco software was run and tree characteristics and ecosystem services value estimates were calculated for each tree. The following characteristics and ecosystem services were then summarized for the Plan area tree inventory data set:

Tree Characteristics:

- Canopy Cover (ft^2): The estimated area of the ground surface covered by tree canopy.
- Leaf Surface Area (ft^2): The estimated area of leaf surface for an entire tree. Leaf surface area has a direct relationship with shade that provided, carbon that is sequestered, and rainwater that is intercepted.
- Leaf Biomass (lb.): The estimated mass of leaves for an entire tree.

[2] i-Tree Eco Software v5.2.2. http://www.itreetools.org

- Carbon Storage (lb.): The estimated amount of atmospheric carbon stored in the existing tree tissue. Atmospheric carbon dioxide (CO_2) is a greenhouse gas.
- Gross Carbon Sequestration (lb./year): The estimated rate at which a tree will sequester atmospheric carbon in new growth each year.
- Structural Tree Value ($): The estimated structural value of trees based on the Council of Tree and Landscape Appraisers.

Avoided Runoff:

- Avoided Runoff (ft^3/year): The estimated amount of rainwater intercepted, stored, and evaporated by each tree, annually. In general, deciduous trees intercept less rainfall annually as they are leafless during the winter rainy season.
- Avoided Runoff Value ($): The estimated value of reduced stormwater management costs.

Pollution Effects:

- Pollution Removed (ounce/year): The estimated annual air pollutant totals removed by trees. The removal of airborne pollutants carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), particulate matter 10 (PM10), sulphur dioxide (SO_2), and particulate matter 2.5 (PM2.5) are all considered in this analysis.
- Pollution Removal Value ($/year): The estimated annual value associated with air pollutant removal.
- Volatile Organic Compound Emissions (ounce/year): The estimated annual emissions of volatile organic compounds by trees.

Per tree values for the tree characteristics and pollution effects analyses are presented in Appendix D (i-Tree Individual Tree Characteristic Values). Plan area tree population summaries for tree characteristics, avoided runoff, and pollution effects are presented in Appendix E (i-Tree Tree Population Summaries).

2.2 Tree Inventory Data Analysis Results

2.2.1 Species Diversity

To better understand the composition of the urban forest in the Plan area, an analysis of the tree inventory data set was conducted to gain a better understanding of tree genus and species diversity in the Downtown Core. To maximize diversity, general urban forest management

standards identify that no more than 10-percent of any tree species should be present in the landscape and no more than 20-percent of any genus should be present in the landscape[3]. This standard is understood to protect an urban forest from wide-scale mortality resulting from infestation of a species- or genus-specific pest. Species-specific pests are introduced into the United States every year. Recent examples include the gold-spotted oak borer (*Agrilus auroguttatus*) in Southern California, which is moving northward, and emerald ash borer (*Agrilus planipennis*) in the eastern United States, which is moving westward. The analysis conducted for the Plan area was intended to identify any genus or species that may exceed these population levels, such that future tree planting or replacement efforts can utilize species that help promote diversity.

In all, 711 trees were inventoried and 35 species were identified within the combined City public right-of-way (10 feet from the street curb face) throughout the City's delineated Downtown Core area and including Carnegie Park. As Table 1 indicates, the individual species were present at varying densities with Liquidambar (*Liquidambar styraciflua*) the most common tree with 122 total (17.2%). The next 4 most common species include: London planetree (*Platanus acerifolia*) with 105 trees (14.8%), crape myrtle (*Lagerstroemia indica*) with 71 trees (10.0%), scarlet oak (*Quercus coccinea*) with 67 trees (9.4%), and callery pear (Pyrus calleryana) with 54 trees (7.6%). Liquidambar, London planetree, crape myrtle, and scarlet oak populations combined make up over 50% of the total tree population in the Plan area.

Table 1
City of Redding – Downtown Tree Species Totals

Latin Name	Common Name	Total Trees	Percentage of Population
Acer platanoides	Norway maple	7	1.0
Catalpa speciosa	Northern catalpa	1	0.1
Cedrus deodara	Deodar cedar	1	0.1
Celtis sinensis	Chinese hackberry	1	0.1
Cinnamomum camphora	Camphor tree	39	5.5
Cornus florida	Flowering dogwood	6	0.8
Ficus microcarpa	Indian laurel fig	1	0.1
Fraxinus oxycarpa	Raywood ash	16	2.3
Fraxinus velutina 'Modesto'	Modesto ash	15	2.1
Ginkgo biloba	Maidenhair tree	6	0.8
Gleditsia tricanthos	Honey locust	1	0.1
Juglans hindsii	Northern California black walnut	1	0.1

[3] Santamour, F.S., 1990. Trees for urban planting: diversity, uniformity and common sense. Proceedings of the 7th Conference of the Metropolitan Tree Improvement Alliance, 57–65.

Table 1
City of Redding – Downtown Tree Species Totals

Latin Name	Common Name	Total Trees	Percentage of Population
Juglans regia	English walnut	3	0.4
Lagerstroemia indica	Crape myrtle	71	10.0
Ligustrum lucidum	Glossy privet	4	0.6
Liquidambar styraciflua	American sweetgum	122	17.2
Liriodendron tulipifera	Tulip tree	42	5.9
Magnolia grandiflora	Southern magnolia	6	0.8
Malus spp.	Crabapple	2	0.3
Morus alba	White mulberry	2	0.3
Nerium oleander	Oleander	1	0.1
Pistacia chinensis	Chinese pistache	53	7.5
Platanus acerifolia	London planetree	105	14.8
Prunus cerasifera	Purple leaf plum	4	0.6
Prunus spp.	Varies	1	0.1
Pyrus calleryana	Callery pear	54	7.6
Quercus coccinea	Scarlet oak	67	9.4
Quercus ilex	Holly oak	2	0.3
Quercus rubra	Red oak	30	4.2
Quercus suber	Cork oak	5	0.7
Quercus wislizenii	Interior live oak	1	0.1
Robinia pseudoacacia	Black locust	10	1.4
Ulmus parvifolia	Chinese elm	1	0.1
Washingtonia filifera	California fan palm	14	2.0
Zelkova serrata	Sawleaf zelkova	16	2.3
	Total	711	100.0

Table 1 provides a comprehensive list of the tree species comprising Redding's Downtown Core trees. As presented in Table 1, there are 711 City-managed trees within the Plan area representing 35 species. Liquidambar (17.2%), London plane trees (14.8%), crape myrtle (10.0%), and scarlet oak (9.4%) meet, exceed, or are approaching the 10% species threshold. When looking at the large tree population specifically, liquidambar and London plane tree account for 24% and 19% respectively. Nearly 1 in every 4 large trees is a liquidambar, or every 1 in 5 is a London plane tree. There are no known epidemics affecting these species at this time, but the introduction of pests could result in losses of large portions of the Downtown Core's large trees. This STMP recommends that the City avoid planting liquidambar, London plane trees, crape myrtles, or scarlet oaks within the Plan area in the future in order to reduce their relative composition. Aside from the relatively large composition of these four species, no single

genus exceeds the recommended threshold of 20% for genus diversity and the remaining 31 species individually compose 10% or less of the Plan area's tree population.

2.2.2 Tree Size

The majority of the street trees within the Downtown Core are small trees measuring 30 feet or less in overall height (413 trees). There are 175 medium sized trees measuring between 30 and 50 feet in overall height and 123 large trees measuring 50 feet or more in overall height. Table 3 includes a summary of the City's Downtown Core trees by height.

Table 2
City of Redding – Downtown Tree Height Summary

Size Category (Overall Tree Height)	Total Trees	Percentage of Population
Large (≥50 feet)	123	17.3
Medium (<50 feet, >30 feet)	175	24.6
Small (≤30 feet)	413	58.1
Total	711	100.0

As presented in Table 2, the majority of the Plan area's trees are small trees. Crape myrtle trees make up the greatest portion of the small tree population with 71 trees (17.2%), followed by callery pear with 52 trees (12.6%). Crape myrtle trees have a typical mature height less than 25 feet, but were most often found measuring 10 feet in height or less in the Plan area. This is partially due to recent tree plantings, but also to intentional top-pruning designed to limit the height of the tree and encourage spreading growth form and screening. Callery pear, capable of growing to a mature height of 40 to 50 feet, often measured 20 feet in height or less. Of these, 47 trees were found to have no overhead utility conflicts, suggesting that these trees will be able to grow to their mature height, given adequate care.

2.2.3 Tree Conflicts

The majority of trees within the Plan area are currently causing or have a potential to cause one or more infrastructure conflicts. Specific conflicts assessed during field data collection efforts include: clearance for vehicle or pedestrian travel, obscured visibility of traffic signage, cracking hardscape (curb or sidewalk), lifting hardscape (curb or sidewalk), and existing overhead utility lines. An analysis of collected tree data identified 766[4] instances where clearance and visibility may be obstructed, and/or surrounding infrastructure, including hardscape and overhead utilities, may be damaged. The majority of conflicts observed were attributed to hardscape damage. Other

[4] This value exceeds 711 as some trees exhibit multiple obstructions

conflicts were commonly related to overhead utilities where there is a potential for conflict but where utilities are not currently being adversely affected. Potential conflicts with underground utilities were not assessed during this survey. Table 3 summarizes the Plan area's tree conflicts with infrastructure and Table 4 summarizes the extent of observed hardscape damage caused by trees in the Plan area.

Table 3
City of Redding – Downtown Tree Infrastructure Conflicts

Infrastructure Conflict Type	Total Trees
Travel Clearance	12
Obstructed Visibility	6
Hardscape Damage	463
Overhead Utilities	285
Total	766

Note: Total exceeds 711 trees as some trees exhibit multiple conflicts

Table 4
City of Redding – Downtown Tree Hardscape Damage Classifications

	Crack Dimension		
Lift Dimension	None	< .25 inch	**≥ .25 inch**
None	248	40	7
< .25 inch	25	44	10
≥ .25 inch	63	44	230

Overall, tree conflicts creating hardscape damage to sidewalks and curbs were observed to be the most prevalent tree conflict found at 463 trees. Of these, 337 resulted in a lift ≥ .25 inch and often encroached well into the walkway. 285 street trees were identified as having existing overhead utility lines, including power transmission lines and lamppost lines. This does not mean there is an imminent utility line issue, but rather, that there are many trees with overhead lines that require occasional trimming. Only 12 trees were identified as impeding on vehicle or pedestrian space. Most of these impediments were associated with branches extending into walkways or parking spots that could be remedied with pruning. Six trees were identified as partially obstructing line-of-sight for vehicle operators. The obstructions were most often associated with partially obstructed traffic signage.

2.2.4 Tree Maintenance Needs

The general health and condition of the majority of trees within the Plan area is considered good based on field observations and analysis of collected data. Note that the inventory did not include

a thorough health or risk evaluation of any of the trees, so specific tree hazards were not identified. However, each tree was classified according to the following general maintenance categories, as outlined in the CAL FIRE California Climate Investments Grant Guidelines 2016/2017:

- Priority 1 Removal: Trees designated for removal have defects that cannot be cost-effectively or practically treated. The majority of the trees in this category will have a large percentage of dead crown, and pose an elevated level of risk for failure. Any hazards that could be seen as potential dangers to persons or property and seen as potential liabilities would be in this category. Large dead and dying trees that are high liability risks are included in this category. These trees are the first ones that should be removed.
- Priority 2 Removal: Trees that should be removed but do not pose a liability as great as the first priority will be identified here. This category would need attention as soon as "Priority One" trees are removed.
- Priority 3 Removal: Trees that should be removed, but that pose minimal liability to persons or property, will be identified in this category.
- Priority 1 Prune: Trees that require priority one pruning are recommended for trimming to remove hazardous deadwood, hangers, or broken branches. These trees have broken or hanging limbs, hazardous deadwood, and dead, dying, or diseased limbs or leaders greater than four inches in diameter.
- Priority 2 Prune: These trees have dead, dying, diseased, or weakened branches between two and four inches in diameter and are potential safety hazards.
- Large Tree Routine Prune: These trees require routine horticultural pruning to correct structural problems or growth patterns, which would eventually obstruct traffic or interfere with utility wires or buildings. Trees in this category are large enough to require bucket truck access or manual climbing.
- Small Tree Routine Prune: These trees require routine horticultural pruning to correct structural problems or growth patterns, which would eventually obstruct traffic or interfere with utility wires or buildings. These trees are small growing, mature trees that can be evaluated and pruned from the ground.
- Training Prune: Young, large-growing trees that are still small must be pruned to correct or eliminate weak, interfering, or objectionable branches in order to minimize future maintenance requirements. These trees, up to 20 feet in height, can be worked with a pole-pruner by a person standing on the ground.

- Stump Removal: This category indicates a stump that should be removed.
- Plant Tree: During the inventory, vacant planting sites will be identified by street and address. The size of the site is designated as small, medium, or large (indicating the ultimate size that the tree will attain), depending on the growing space available and the presence of overhead wires.

Table 5 summarizes tree maintenance needs in the Plan area.

Table 5
City of Redding – Downtown Tree Maintenance Needs

Maintenance Need	Total Trees
Priority 1 Removal	0
Priority 2 Removal	4
Priority 3 Removal	7
Priority 1 Prune	2
Priority 2 Prune	6
Large Tree Routine Prune	600
Small Tree Routine Prune	46
Training Prune	46
Stump Removal	0
Plant Tree	164
Total	875

Note: Total includes 711 evaluated trees plus 164 mapped planting sites

Overall, large tree routine pruning (600 trees) was observed to be the most prevalent maintenance need. For the purposes of this section, large trees are defined as those with crowns too tall to be fully pruned by a person standing on the ground. There are 11 trees recommended for removal. These trees exhibit poor overall health and/or structure. There are 8 trees recommend for priority pruning, 46 small trees recommended for routine pruning, 46 young trees recommended for training pruning, and 164 vacant sites identified for tree planting.

Based on these cursory tree evaluations, the noted tree maintenance needs are relatively minor given that only 19 (2.6%) of the Plan area's trees were identified as having priority maintenance needs. However, there are numerous trees within the Downtown Core that should be provided regular maintenance to correct branch architecture issues, including crossing branches, poor branch attachment angles, included bark, and others. These types of maintenance issues could be addressed during routine pruning visits that address the entire tree crown, not just pruning at the lower reaches. Deferral of tree maintenance can result in branch breakage and failures, reduced tree lifespan, and potential property damage or personal injury.

2.2.5 Typical Tree Maintenance Needs

Urban trees have stressful environments in which they cope with harsh, compact soils, soil moisture inconsistencies, hardscape and limited rooting area, vehicle collisions, vandalism, and heat and cold extremes, among other issues. To that end, trees require routine maintenance to ensure that they are able to conduct the physiological functions needed to survive. Table 6 provides a recommended maintenance routine based on the City's 711 trees within the Plan area. Assumptions regarding the number of trees for removal, trimming, watering, etc., are based on arborist experience dealing with urban tree populations. Actual hours may be less or more and will vary from year to year.

Table 6
Recommended Tree Maintenance Labor and Equipment Summary

Tree Maintenance Task	Estimated Annual Man-Hours		Equipment/Supplies
	Skilled	Laborer	
Tree Removal	10	15	Bucket lift, trained climbers, rigging, stump grinder, chipper truck, chainsaws, ground tools
Tree Trimming – Heavy	100	100	Same as above
Tree Trimming – Light	50	50	Chainsaws, hand saws, chipper truck, chipper
Hazard Branch Removals	20	20	Bucket truck, climbers, ground staff
Deep Watering	0	40	Water truck or water source, hoses, emitters
Pest Management	10	20	Pest Control Adviser (PCA)/applicators license qualification, sprayers, injectors
Fertilizing	0	40	Soil and tissue testing, fertilizers/soil amendments,
Staking/Unstaking/Adjustments	0	10	Tree stakes, tree ties, hand tools
Miscellaneous	25	50	Various hand tools, loppers, shears, pole pruners,
Total	215	345	N/A

2.3 i-Tree Analysis Results

Trees provide many benefits to communities, some of which are quantifiable based on current costs and values. Recent focus on methods to measure these benefits in terms that are consistent with other urban assets has resulted in the development several tools, one of which is i-Tree. As noted, the i-Tree Eco software suite allows one to calculate the values and ecosystem services of urban trees and forests. With these values in hand, City managers can measure the urban forest's contribution toward achieving their multiple General Plan goals. This section summarizes the results of the i-Tree Eco analysis conducted in support of this STMP. The primary focus of the i-Tree Eco analysis conducted for this STMP was quantification of the tree characteristics and

ecosystem services that the Plan area's trees provide compared to the City's investment to care for and sustain this urban infrastructure. The benefits analyzed via i-Tree Eco are presented in Section 2.1.2 and the results summarized below in Table 7.

Table 7
City of Redding – i-Tree Analysis Results for Downtown Trees

i-Tree Benefit Value	Total
Tree Quantity	711
Canopy Cover (ft^2)	518,481 ft^2
Leaf Area (ft^2)	1,762,829 ft^2
Leaf Biomass (lb.)	21,919 lb.
Carbon Storage (lb.)	533,694 lb.
Gross Carbon Sequestration (lb./year)	37,127 lb./year
Structural Tree Value ($)	$3,769,301
Avoided Runoff (ft^3)	14,417 ft^3
Avoided Runoff Value ($)	$960
Pollution Removed (ounce/year)	
CO	332 ounces/year
O_3	5,747 ounces/year
NO_2	891 ounces/year
PM10	2,685 ounces/year
SO_2	147 ounces/year
PM2.5	139 ounces/year
Pollution Removal Value ($/year)	
CO	$12
O_3	$229
NO_2	$5
PM10	$673
SO_2	<$1
PM2.5	$259
Volatile Organic Compound Emissions (ounce/year)	16,912 ounces/year

3.0 PLAN AREA TREE MANAGEMENT

To evaluate current tree management practices being implemented in the Plan area, Dudek interviewed City staff and reviewed City-provided data. The following sections summarize existing tree management efforts and recommendations for modifications to promote urban forest health in the Downtown Core.

Dudek used the results of the field phase of this project for analysis and recommendation formulation. The City's current level of tree maintenance and budget and its relation to the current street tree conditions was reviewed and long-term management recommendations formulated. A recommended tree trimming and maintenance cycle has been provided that is specific to the Plan area and provides for a potential optimization of tree pruning cycles and a model for standardization of tree maintenance costs should the City determine that an outside contractor would be a viable option. The maintenance cycle and estimated budget are offered for the City's use during solicitation of bids from qualified tree maintenance contractors.

3.1 Current Management Practices

The City's current tree maintenance program is summarized as follows:

- The City has a staff of 14 positions available for tree maintenance activities. Two of the 14 positions are full-time, including an Arborist Lead Worker and a Tree Trimmer. These two positions, with the addition of the Parks Superintendent, compose the "tree crew". The remaining 12 positions commit 10% or less of their time toward tree maintenance. The tree crew is responsible for all of the approximately 20,600 trees belonging to the City, of which, the Plan area tree population represents a small fraction.
- Tree crew qualifications and training include: ISA Certified Arborists, ANSI A300 Planting and Transplanting Seminar (2016), Tree Risk Assessment Qualification (scheduled August 2017), and Structural Pruning for Shade Trees trainings (multiple).
- The City has various equipment both available full-time and part-time for tree work. Generally, the City does not rent any equipment, but does contract with a crane service 1-2 times per year for hazard tree removal. Table 8.

Table 8
City of Redding – Tree Maintenance Equipment

Equipment	Quantity	Full/Part Time	Cost
Water trailer	1	Part Time	$2,500 (unit cost)
Utility boom truck	1	Full Time	$60/hour
Pickup truck	1	Part Time	$26.95/hour
Chainsaw	6	Full Time	$500-$1,000 (unit cost)
Power pole pruners	2	Full Time	$700 (unit cost)
Pole pruners	2	Full Time	$100 (unit cost)
Other pruning tools	6	Full Time	$50 - $150 (unit cost)
Chipper	1	Full Time	$32.39/hour
Bobcat T590	1	Part Time	$25.00/hour
Stump grinder attachment	1	Full Time	$19.70/hour
Grapple hook attachment	1	Part Time	$11.83/hour
Dump trailer	2	Part Time	$7.50/hour

- Maintenance needs are determined either by 1) informal assessments and observations reported by the tree crew and other City staff, 2) through call-in, email, or website form notifications from the general public, or 3) from notifications of issues identified by other City departments. With the information provided, the City develops a work order, also known as a tree tag, and the tree crew addresses each tag at their discretion. The tree crew does not conduct formal prioritization of the tree tags, or standardized tree health assessments on a regular schedule. Forty tree tags for the Plan area, including some area beyond the Downtown Core, were generated in 2016. Twenty of the tree tags were related to clearance issues near buildings, sidewalks, and road signs. Eleven of the tree tags were related to hazardous hanging or dead limbs. Seven of the tree tags were related to removal of dead, dying, or hazardous trees. The remaining two tree tags were related to a stump removal and an unwarranted request for tree removal which triggered an assessment by the Tree Crew. Approximately 75% of the tree tags appear to be generated through call-ins from the general public.
- Tree planting follows the City "Green Book" standards found Section 700 (Construction Standards). The City has not planted any new trees within the last 5 years. Contractors are required to plant trees according to a planting plan for newly developed, or redeveloped areas. Several planting wells in the Plan area were paved over in-lieu of replanting following tree removal.
- The City has not adopted any tree pruning standards and the tree crew does not perform routine pruning. Tree tags, as opposed to a routine tree trimming cycle, are the primary

driver of tree pruning activities. Pruning needs identified by tree tags are addressed at the discretion of the tree crew. The tree crew will clear a space of 14 feet above the surface of the street and 8 feet above the surface of the sidewalk in response to clearance related tags. The tree crew will also perform pruning of hazardous limbs and deadwood, climbing trees when necessary. The tree crew is also capable of performing large tree pruning, but currently limited by staffing levels. Large tree removals are also handled by the tree crew, including stump removal. The City typically contracts with a local crane operator 1-2 timer per year when high-value targets are situated beneath trees to be removed, or when general rigging is not possible.

- Standards for irrigation system design are also addressed in the City "Green Book" Section 700 (Construction Standards). The tree crew does not conduct any irrigation activities.
- The City has not adopted any large tree supplemental support or tree cabling standards. The tree crew does not install or maintain any supplemental support systems.
- Standards for soils management are addressed for new tree planting in the City "Green Book" Section 700 (Construction Standards). Contractors are required to utilize fertilizer packets for new tree plantings. The City tree crew does not perform any soil management activities.
- The City has not adopted any lightning protection systems standards and the City tree crew does not install or maintain any lightning protection systems.
- The City has adopted the Comprehensive Tree Plan to direct the management of all City trees. This plan is accessible through the City's public website in the form of an expandable list of Frequently Asked Questions (FAQ's). It is also available as a planning permit handout. There are several components that make up the Comprehensive Tree Plan including: the City Tree Preservation Ordinance Chapter 18.45 of the Redding Municipal Code, the Comprehensive Tree Plan Chapter 13.40 of the Redding Municipal Code, a Street Tree List for recommended trees, a Tree Removal Permit Application, and guidance for developers, utility workers, and neighboring landowners. The tree preservation and planting requirements contained in the Comprehensive Tree Plan aim to ensure that trees become an integral part of the development planning in the City.
- The City has not adopted standards for use of ornaments and lighting in City trees. The tree crew does not install or maintain ornaments or lighting, including Christmas tree lights, on street trees in the Downtown Core.

- The City has not adopted standards for root pruning of City trees. The City Streets Division occasionally prunes roots while replacing lifted sidewalks.
- The City has not adopted standards for Integrated Pest Management (IPM). The tree crew does not perform any pest management in the Downtown Core.

Tree work is typically undertaken in response to tree tags and at the discretion of the tree crew. The tree tags are not formally prioritized and work is scheduled on an ad-hoc basis, frequently being postponed when other maintenance needs arise within the City. Hazard abatement has historically taken priority, while routine pruning or formal tree health assessments are not being performed. Typically two workers (occasionally three) are committed to tree work. Average costs per day are broken down by each crew member's labor rate ($43.46/hour Gardener/Tree Trimmer, $50.01/hour Arborist Lead Worker, and $59.53/hour for the Parks Superintendent).

Due to past budget and staff resource limitations, ongoing consistent tree maintenance appears to be secondary to other City infrastructure maintenance needs. This is evidenced by the employment of only two full-time tree worker positions for the maintenance of an estimated 20,600 trees (City-wide). Trees, like any other City infrastructure, require ongoing maintenance that if deferred, can lead to larger issues and more costly solutions. Trees do not need to be pruned every year, but regular maintenance keeps trees healthy and potential hazards low.

The level at which a city can provide maintenance is typically limited by available staff and budget. Some cities prune trees on a 2-, 3-, or 4-year cycle. Others may prune on a longer cycle, approaching 10 years or more. However, certain trees receive maintenance on annual cycles because of their location, growth habits, or other reasons. In any case, timing of pruning is important. For example, focusing annual or biannual pruning on newly planted trees for the first 4 or 5 years may result in fewer issues throughout the life of the tree. This may enable a longer pruning cycle in successive years, resulting in considerable savings. For the City of Redding, all of the Plan area trees should be pruned within a 5- or 7-year timeframe; then an appropriate cycle should be selected that works with the available budget and keeps the trees in a healthy condition.

To analyze current City budget allocations toward tree care, an analysis of the City's 2016 Parks Division personnel wages was performed, as summarized in Table 9.

Table 9
City of Redding – 2016 Parks Division Personnel Wages Toward Tree Care

Parks Position	Hourly Rate	Total Hours Applied to Tree Care	Total $ Applied to Tree Care
Parks Superintendent	$59.53	208	$12,382.54
Working Supervisors	$55.12	146	$8,047.52
Lead Workers	$50.01	84	$4,200.84
Arborist Lead Worker	$50.01	2,080	$104,020.80
Gardeners/Tree Trimmers	$43.46	728	$31,638.88
Tree Truck Groundsmen	$41.28	2,080	$85,862.40
Maintenance Worker	$41.28	42	$1,733.76
	Total	5,368	$247,886.74

Table 9 presents Parks Division staff hours and expenditure for the entire City tree population, an estimated 20,600 trees. In 2016, the City spent an average of $46.18 per hour of tree care. In addition, the Parks Division contracts out a small amount annually for large tree removal. As indicated in Table 6, 560 hours are recommended for a typical one-year maintenance routine for the Downtown Core tree population. Of the 560 hours, 265 are recommended to be out-sourced to a qualified contractor and would be expected cost an average of $200 per hour. In total, the recommended one-year maintenance routine would cost the City a total of approximately $66,000 per year, or 27.5% of total annual cost of tree care in 2016, for routine tree care of the Plan area street trees (initial annual costs of tree care will actually be significantly higher due to deferred maintenance). With only 711 trees, or 3.5% of the total City tree population, it is evident that the Plan area trees have a disproportionately higher cost to maintain compared to the rest of the population. This is in part due to the large size and old age of many of the Downtown Core street trees, but it could also indicate inadequate funding for the tree care of the entire City tree population, and it is likely a combination of both. In order to verify, a baseline inventory and analysis of the entire City tree population would be required.

The City does not track hours of tree care committed to the Downtown Core street trees, which limits the ability to make an objective comparison of actual tree care efforts to optimal tree care efforts. The City does, however, track tags received and completed. As stated, 40 tree tags were generated and completed in 2016 in the Downtown area. These tags provide the City a mechanism for tracking tree care efforts by allowing the City tree crew to enter and record hours committed to the task. To date, work hours have not been recorded in the tags.

The City's current staff hours and expenditure for tree maintenance are not currently tracked, leaving out the possibility for a comparison of current tree care efforts to optimal tree care

efforts. Despite this, there is enough of an understanding of the maintenance practices to conclude that the current tree care efforts are less than what is needed to maintain the City's Plan area trees in good condition for the long-term. The hours allocated by the City for tree safety pruning appear adequate. However, significantly greater time and expenditure are recommended to adequately maintain the Plan area's trees.

3.2 Plan Area Tree Management Recommendations

Based on Dudek's evaluation of the City's Plan area trees during the field phase and our evaluation of maintenance practices provided by the City, it is recommended that the City make one of the following changes to its current tree maintenance practice (significant tree work over and above current safety pruning):

Option 1 includes appropriating necessary funding to hire a professional tree contractor for significant tree work over and above current safety pruning. As described further in Section 3.3, tree maintenance costs can be spread over a 5- or 7-year tree trimming cycle to help reduce annual costs and level annual expenditures. Funding for this professional tree care option would be largely beyond the existing amount per year spent on contracted tree maintenance. However, the cost of deferring tree maintenance and continuing on the existing path of only trimming the lower portions (safety pruning) of the tree crowns will be significant in terms of dollars to ultimately remove trees that become hazardous and lost benefits (aesthetic, stormwater interception, carbon sequestration, water and air quality, and others) when large numbers of trees require removal. The advantages of increasing the contract work budget are that the trees will receive industry-standard trimming that results in reduction of potential issues, the trees will represent a lower hazard condition, potential liability will be reduced, the trees will be healthier and less prone to limb failures, and the Plan area's urban forest will receive maintenance at a level that is more consistent with other City assets. It also results in Parks Division staff being able to focus on the myriad of other tasks they are responsible for completing. The primary disadvantage is the cost associated with this option.

Option 2 is to continue to conduct tree maintenance with Parks Division staff. However, if this option is selected, it is recommended that staff are provided with the equipment and training necessary to conduct this work over and beyond safety pruning. At the least, maintenance personnel should be trained on proper pruning techniques, should include one ISA Certified Arborist on staff, be trained for tree worker safety (including working around energized transmission lines), and be provided the equipment necessary to safely conduct this trimming work: boom truck, stump grinder, chipper truck, various chain saws, hand saws, and rigging. To reach the level necessary for proper tree pruning, staff will need to be able to safely climb trees, remove large trees (including technically difficult trees that need to be removed in sections), and

properly identify branch architecture issues and mitigate them. The main advantage of this option is that the work would be conducted by City staff. The disadvantages include that staff currently have limited time available for tree trimming and if whole tree trimming became the responsibility of the Parks Division (including more than safety pruning), significantly more time would be needed, which would leave less time for other maintenance tasks. In reality, this option would not work with existing staff alone. It is projected that one to two additional staff may be necessary to implement this option.

Option 3 would include a hybrid of Options 1 and 2. This option would utilize a contractor to conduct tree trimming (above and beyond safety pruning) operations on a 5- or 7-year trim cycle, which could be adjusted after the first corrective pruning to a longer timeframe for some trees and shorter for others in high-profile locations or species that require a shorter pruning interval. There would be tasks that City staff could perform safely, with minimal impact on their availability for other tasks, or as a back-up when a contractor is unable to perform the task in a short timeframe. Among these tasks are:

- Tree trimming – light
- Hazard branch removals
- Deep watering
- Pest management
- Fertilizing
- Staking/unstaking/adjustments
- Miscellaneous.

This option seems to offer the most flexibility and advantages since it would limit a tree contractor to focusing on tree trimming while enabling cost savings by having City staff conduct more basic tree care tasks. The contractor's scope of work can be tightly defined and costs spread over a timeframe that works for the City, even up to 10 years for certain trees (those in less high-profile areas and species that are slow growing and trees that currently do not have major issues).

3.3 Recommended Five- to Seven-Year Pruning Schedule and Budget

Establishing a pruning budget for the City involves many variables. Among the most important considerations are the following:

- **Species** – each species may require differing pruning techniques
- **Species distribution** – important for planning work and optimizing efficiency
- **Tree size** – larger trees require more time and higher costs
- **Special pruning requirements** – some trees may require higher pruning frequency due to their location
- **Proximity to personal property** – trees in areas close to personal property, such as buildings and residences, require special techniques that increase time required for pruning.

There are many ways to schedule tree pruning that would be successful for the City. Below we've proposed a 5- to 7-year pruning schedule and budget. The 5- to 7-year projected pruning schedule and budget presented in Table 10 outlines a conservative estimate of the expected costs to be incurred for pruning all City trees in the Plan area and would provide tree maintenance on par with other cities. It has been found that typical municipal tree pruning costs range from $60 to $150 per tree. The initial pruning for Plan area trees may cost more due to deferred maintenance, so for the sake of this STMP, we estimate that each tree may cost $150 initially. This equates to $21–$30/tree per year, depending on the pruning cycle.

A 5- to 7-year pruning cycle typically works well as long as the contract is written to clearly state what prices will be for special, out of cycle pruning tasks. Additional pruning above and beyond the minimum schedules outlined in Table 10 will certainly arise. Trees located too close to structures may need an additional pruning cycle to keep the crown contained, and hazardous branches may periodically need removal. With these constant adjustments, this type of schedule can be difficult to manage by the City, but contract language addressing pruning outside the schedule can be included such that standard prices would apply.

Table 10
City of Redding Downtown Core – Five- and Seven-Year Projected Pruning Schedule and Budget

Year	Total Trees	5-Year Cost ($150/tree pruning)	Total Trees	7-Year Cost ($150/tree pruning)
	5-Year Cycle Calculations		*7-Year Cycle Calculations*	
Year 1	142	$21,300	102	$15,300
Year 2	142	$21,300	102	$15,300
Year 3	142	$21,300	102	$15,300
Year 4	142	$21,300	102	$15,300
Year 5	143	$21,450	101	$15,150
Year 6	N/A	N/A	101	$15,150
Year 7	N/A	N/A	101	$15,150
Total	711	$106,650	711	$106,650

With the 711 street trees tallied and at $150/tree, it is estimated that the Plan area trees can be pruned over a 5-year timeframe for $21,450/year or over a 7-year timeframe for $15,300/year. Once established, the City will need to determine if these cycles are appropriate to continue, where it needs to be shortened (there will be areas requiring pruning more often), and where it can be lengthened. However, even at the 5-year cycle, each tree is costing the City $30/year to maintain ($150 divided by 5 years). This annual cost is roughly $21 if a 7-year cycle is implemented.

The costs associated with this type of pruning will be "new" to the City since current costs are absorbed within the City Parks annual operating expenses. However, the additional cost can be partially offset by productivity gains from maintenance staff who can focus on the many other tasks they perform. An analysis of the cost–benefit has not been conducted as part of this project, but is anticipated that the gains in productivity, reduced turn-around time, deferred maintenance, and repairs to City infrastructure may be significant.

3.4 Pruning Guidelines

As a general rule, trees should be pruned when they are naturally under the least amount of stress, usually *before* the main growing season. Most deciduous trees should be pruned when they are dormant, typically in late fall and winter. There is greater flexibility when pruning evergreen trees, but pruning should be avoided during the hot summer months (June through September), as this would create additional stress and often leads to sunscald damage. Trees

susceptible to frost damage should be trimmed immediately after the last chance of frost. Full growth on the tree will protect it during a cold winter.

In interior Northern California there are three "seasons" for pruning trees: October to January (Fall), December to March (Winter), and February to May (Spring). These seasons overlap due to yearly fluctuations in temperature and they can be slightly manipulated in order to schedule work crews efficiently. Pruning during the wrong season could damage the tree and/or prevent adequate growth or flowering.

The "pruning cycle" is another factor to be considered for tree pruning. Most young trees need pruning during the first few years to develop a sound, well-balanced branching pattern. Trees over 20 feet in height generally require only light trimming every few years. Fast-growing varieties, those with a weeping form, and those that sprout easily, need more frequent pruning. Some trees, like pines (once their branch architecture has been corrected) and palms (annual pruning—very minimal effort), can require very little pruning.

It is important to note that these are guidelines to create natural-looking trees. Unnecessary or improper pruning wastes time and money, can seriously injure the tree, and can encourage faster growth requiring even more frequent pruning. Other factors such as age, location, pest and disease control, and design purpose may require alteration of this schedule.

3.4.1 Pruning Guidelines Conforming with ISA Standards

The primary goal of pruning is to develop, preserve, and enhance the beauty, structural integrity, and functional value of the plant. Pruning guidelines have been established by the International Society of Arboriculture (ISA) and within the American National Standards Institute (ANSI) A300 standards in an effort to promote practices that encourage the development and preservation of plant structure and health. The guidelines are a working tool, recognizing that trees and shrubs are individually unique in form and structure, and that their pruning needs may not always fit strict rules. These standards should be implemented for all tree trimming within the Plan area.

3.4.2 Special Trees with Shorter Pruning Cycle Needs

Conditions may exist that will necessitate more frequent pruning, such as those located adjacent to structures, sidewalks, driveways, lighting, street signs, or for security reasons. Also, individual branches may need to be removed to prevent interference with such features. A tree may need to be trimmed more frequently due to litter impact in high-traffic areas or to protect view corridors. Regular inspections of the Plan area's trees should be conducted by a Certified Arborist to determine if additional maintenance is required for the following: potential hazards, structure,

broken branches, injury, invasive roots, pests and diseases, root crown, soil disturbances, hardscape displacement, and management at the direction of a Certified Arborist.

The City's trees are a financial asset and require routine maintenance like other city assets. The City has limited budget, manpower, equipment, and expertise to conduct more than minimal safety pruning (canopy lifting) and reaction to fallen limbs or trees. Despite this, the City's trees appear to be in at least average condition. However, deferred maintenance will, over time, create issues that may be amplified.

3.5 Tree Removals

Tree removals have not been specifically addressed in the provided cost estimates. Should the City be required to remove trees, they would be added into the contract specifications and would be expected to be priced higher than provided pruning costs. Generally, stump grinding (removal) is included in tree removal fees. The one-time expenditure for tree removal would be offset by reduced pruning costs for several years since newly planted trees require little pruning.

3.6 Root Pruning

Root pruning is generally not recommended but may be performed if determined by a Certified Arborist to be necessary to prevent root damage to utilities, hardscape, and other infrastructure, or during construction or sidewalk replacement projects. The practice of root pruning, if incorrectly applied, can jeopardize tree stability and health. Of primary concern is stability because it puts the health and safety of the public at risk. Only minimal root pruning is recommended to remove the encroaching root and only on an as-needed basis. Before the decision to root prune is made, the offending root(s) to be severed shall be evaluated as to the tree's stability after their removal. If stability is in question and continued damage is expected, the tree should be considered for removal. All root pruning should be conducted according to ANSI A300 standards.

3.7 Tree Contractor Criteria

The following requirements are recommended for private tree contractor selection, should the City decide to outsource tree maintenance work:

- Must have an ISA Certified Arborist on staff supervising tree work.
- Must provide documentation confirming ISA Certified Arborist status, including ISA Certification Number.
- Must provide liability insurance.
- Must follow ISA tree pruning recommendations and ANSI A300 pruning standards.

- Must have adequate equipment and number of tree workers.
- Must be able to demonstrate successful completion of similar municipal tree maintenance contracts.
- Must be able to provide sample tree pruning to the satisfaction of the City prior to initiating contract tree work.
- Must provide digital information regarding trees removed, trimmed, etc., throughout the year.

4.0 TREE PLANTING AND REPLACEMENT

As documented during field data collection efforts, the Plan area contains 164 potential tree planting sites. These sites were those where sidewalk cutouts were vacant, or in some cases paved over with concrete or asphalt. These sites, plus those resulting from any future tree removal efforts, present the City with an opportunity to increase and maintain the tree population in the Downtown Core through tree planting. This section includes a summary of potential planting sites and constraints (e.g., overhead utility lines), recommendations for enhancing tree planting sites, and a list of tree species suitable for planting in the Downtown Core, considering Redding's unique climate.

4.1 Potential Planting Sites

Attribute information collected for the 164 potential planting sites included planting site size, whether vertical (e.g., utility line) or horizontal (e.g., street sign) obstructions would constrain tree growth, and whether planting sites fall on Caltrans designated highways. A summary of this attribute data is presented in Table 11 and the locations of mapped tree planting sites is presented in Figure 3. Detailed information collected for each potential planting site is presented in Appendix F (Potential Planting Site Attributes).

Table 11
City of Redding – Downtown Potential Tree Planting Site Conditions

	Caltrans Highway	
Size	Yes	No
Small (2.5-3.5 feet)	29	68
Medium (3.5-4.5 feet)	15	43
Large (4.5+ feet)	0	9
Total:	44	120

As presented in Table 11, the mapped and identified tree planting sites can accommodate 97 small trees, 58 medium trees, and 9 large trees. Adherence to Caltrans planting specifications would be required for 29 small trees and 15 medium trees. Planting trees in these 164 sites is recommended, considering the species diversity recommendations and species options described below.

SOURCE: City of Redding 2017; Dudek 2017

DUDEK

0 162.5 325 Feet

FIGURE 3

Potential Tree Planting Sites

Downtown Redding Street Tree Management Plan

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4.2 Planting Site Enhancement

Due to the constraints and harsh growing environments often created by urban landscapes, efforts to enhance or create planting or growing sites to accommodate trees are an important consideration for urban forest management. Soils in these areas tend to be compacted, low in available nutrients, and covered with impermeable surfaces (e.g., concrete), limiting root/air exchange and water infiltration potential. Additionally, the significantly high temperatures in Redding during the summer months also warrant consideration, especially for establishment of newly planted trees. The latest advancements in tree well and basin designs go beyond providing for the tree's basic needs, and maximize the environmental services provided by the site, such as stormwater retention and bio-filtration. The following sections provide design-related recommendations for enhancing tree growing environments in the Downtown Core.

4.2.1 Design Considerations for Existing Planting Sites

A standard design template for planting sites in the Plan area is provided in Appendix G (Standard Tree Planting Site Design). This standard is adopted from the Urban Tree Foundation, who have developed modern, up-to-date and peer reviewed sets of details and specifications for tree planting in urban settings. As identified in this template, installation of root barriers is also recommended to minimize future hardscape damage. Root barriers should be 18-inches in height and installed according to manufacturer's specifications and as identified in the template. Utilization of the planting site design standard presented in Appendix G is recommended as a baseline standard for the City to implement for the existing 164 planting sites (and for additional planting sites following tree removal, where necessary). This standard may require modification based on field conditions and constraints (e.g., setbacks, sidewalk clearance), but provides a basic framework for re-constructing existing planting sites. Based on field observations, many vacant planting sites have been paved over, requiring some level of concrete removal to meet the standard. As discussed below, expanding planting sites through additional concrete removal is recommended. This standard can also accommodate irrigation system installation if desired by the City (see Section 4.3.2.2 below) and does not require significant concrete removal and excavation for implementation.

Where feasible, the City should also consider enhancing existing vacant tree planting sites, and those where tree removal is necessary, beyond the standard recommendation provided in Appendix G. Maximizing planting site dimensions is recommended, where feasible. Field observations and collected field data reveal that tree planting sites (sidewalk cutouts) within the Plan area are typically square, with dimensions predominantly between 3 and 4 feet. While minimum walkable sidewalk widths may constrain expanding well dimensions in one direction, it is possible to expand their area in a linear fashion, parallel with the street alignment (as shown

in Appendix G). This can be accomplished by removing concrete or asphalt paving in the area between the back of curb and the sidewalk, creating a longer, rectangular planting space. The ultimate length of each planting area would be variable by tree, depending on other site constraints (e.g., driveways), but should be as large as possible and should be continuous between trees where feasible. This technique can be implemented for existing trees or potential planting sites (should be implemented prior to tree planting). The expanded planting site would provide greater soil surface area, allowing for better root/air exchange and water infiltration, and may alleviate some sidewalk lifting and cracking issues as roots are provided a better, more expanded growing space.

If implemented, concrete or asphalt removal should be conducted with hand tools or the material should be "peeled back" with heavier equipment (e.g., bobcat, backhoe). Severing roots should be avoided and if conducted at exiting tree locations, above-ground tree parts (trunk, limbs, branches) should be protected. If necessary, root pruning should be conducted as outlined in Section 3.6. Root barriers should be installed to protect the surrounding infrastructure for new plantings. Once complete, the newly exposed soil should be protected via the application of a permeable layer of much or decomposed granite, which would also help minimize trip hazards. The costs to implement this technique by the City would be relatively low and could be implemented by City crews when time allowed. This technique could also be integrated as a component of any sidewalk repair projects being implemented by the City.

In addition to maximizing planting site dimensions, the following management actions should also be considered and implemented where feasible.

- Maximize Distance to Infrastructure: Plant trees within tree wells or linear parkway planting areas such that they are the maximum distance possible from adjacent infrastructure (e.g., signs, buildings, overhead power lines, subterranean infrastructure). Where possible, and if necessary, shift tree planting locations to achieve maximum distances.

- De-Compact and Amend Soils: Prior to planting trees in vacant sites, excavate and de-compact (loosen) soil in planting location. Maximize the area of soil de-compaction to facilitate root growth. Appropriate soil amendments should be mixed with native soil prior to tree planting and backfilling.

- Integrate Alternative Paving Systems: Utilize pervious concrete or alternative paving techniques (as described in Section 4.2.2) when hardscape replacement is necessary.

- Re-Route Sidewalks: Install offset sidewalks when sidewalk replacement projects are proposed. This effort involves re-routing a sidewalk around a tree planting site, resulting in a wider tree growing site. This effort can reduce future tree/sidewalk conflicts.

- Utilize Tree Grates: To maximize planting site size and minimize trip hazards, utilize tree grates in gathering areas or areas subject to high pedestrian traffic.

4.2.2 Design Considerations for Large-Scale Projects

For areas in the Downtown Core that may be subject to large-scale re-development or where large-scale public infrastructure projects necessitate hardscape removal and soil excavation, the following techniques and technologies for providing better soil environment and enhancing environmental services of urban trees should be considered.

- Silva Cells: A modular building block for containing unlimited amounts of healthy soil beneath paving while supporting traffic loads and accommodating surrounding utilities. Silva Cells are filled with un-compacted soil to facilitate tree root growth and allow for better stormwater infiltration. More information at: http://www.deeproot.com/silvapdfs/resources/supporting/silva_cell_brochure.pdf

- Structural Soils: A pavement substrate that can be compacted to meet engineering requirements for paved surfaces but contains pore spaces that facilitate tree root growth under and away from the pavement. More information at: http://www.hort.cornell.edu/uhi/outreach/csc/article.html

- Pervious Concrete: Pervious concrete allows for water and air infiltration through the poured concrete surface. This technique is ideal for protecting trees in a paved environment and allows trees to receive more air and water while allowing for full use of the pavement. More information at: http://www.perviouspavement.org/benefits/environmental.html

- Alternative Paving: Using alternative materials (pavers, bricks, composite plastic, rubber) has similar benefits to pervious concrete, but are more flexible, allowing roots to grow underneath without cracking/lifting the surface. They are also easier to repair.

- Bio-Swales/Rain Garden: An engineered stormwater infrastructure component. These areas can be used as tree planting sites, which function also provide bio-filtering of stormwater and a reduction in overall stormwater management needs.

- Root Paths: A relatively low-cost approach where trenching or excavation is completed to break up compacted soils and provide an avenue through which tree roots can grow to reach additional soil areas. Root paths, channels of loosened soil, can be created beneath sidewalks providing access to larger soil growing areas. More information at: http://www.sbcatree.com/assets/Batchelder_WINTER_2011.pdf

The above techniques/technologies are not an exhaustive list of options, but provide an example of approaches that the City can consider. Implementation of these approaches would also be costly and it is not expected that large-scale implementation would be feasible in the Plan area due to the significant amount of hardscape demolition, soil excavation, and reconstruction that would be necessary. However, the City may consider taking advantage of public infrastructure or private development projects that would require such actions. Selection of which technology/technique is appropriate or feasible at a given site would therefore be dependent on numerous factors, including project area extent and budget. Over time, the number of tree planting sites with enhanced soil growing environments and maximized environmental services could increase. This approach would require inter-department coordination between the Parks Division and the Planning and Public Works Departments.

4.2.3 Irrigation

Providing irrigation to trees in sidewalk cutouts (or newly expanded planting areas) could be accomplished through hand-watering efforts or piping in irrigation water. Providing irrigation to older, established trees is a lower priority as they have adapted to existing site conditions; although supplemental irrigation during hot summer months could be beneficial. The following summarizes potential approaches for providing irrigation to City trees in the Plan area.

4.3.2.1 Hand-Watering

Hand watering would involve physically applying water to the tree planting well or planting area by field crews and would likely involve the use of a water truck or trailer and hose. Hand watering would be needed only in the hot, dry summer months, or during extended rainless periods in other times of the year. This is a labor-intensive but easy-to-implement technique that is best applied to newly-planted trees or those exhibiting drought stress. Costs for this technique would be relatively low, although higher than current maintenance costs as additional field staff time would be needed. The City could use existing equipment (truck and water trailer) to accomplish hand watering. Alternatively, the City could contract with a private contractor.

If the City pursues state of federal grant funding to plant more trees in the Plan area, it is possible to cover some of the initial irrigation costs with grant dollars, although it is expected that this

would be limited to no more than 3 years, the typical tree establishment period. The City would be responsible for irrigation following any grant-funded tree establishment period. Ideally, newly-planted trees are established after this period and can survive on seasonal rainfall without supplemental irrigation. Tree mortality that may occur following the establishment period would be a consequence of this approach.

4.3.2.2 Irrigation Systems

Installation of irrigation systems that provide water directly to tree wells and planting areas is a more reliable technique, can be set up with a timer, minimizing the potential for under-watering, and can be implemented over a significantly longer period, even for the life of the tree. Following installation, necessary staff time would be associated with maintenance and repairs to the system. Should the City elect to install irrigation systems to Plan area trees, they should be low-flow, drip systems that deliver water slowly to tree root zones and should be designed according to the water needs of the tree. A licensed landscape architect or qualified irrigation designer should be consulted to design such systems.

Challenges to installing irrigation system for City trees in the Plan area could be associated with securing water sources, metering water, and installing irrigation pipe to tree wells. City water sources (e.g., those in existing City landscape areas) could be fairly easily accessed and tapped into for irrigation purposes. Private water sources (e.g., those in adjacent private buildings) could be accessed, although a separate meter would likely be necessary to properly calculate water usage. Piping water within existing landscape areas to trees in the same landscape areas would be fairly simple and less costly. Installing irrigation systems to tree wells that do not currently contain them would necessitate partial sidewalk removal and repair, a more costly effort. Placement of necessary valves, controllers, and meters could also be problematic, or costly to implement.

The City may consider a phased approach to water delivery to its Downton Core trees. In the short-term, hand watering could be implemented where necessary (as described above). The City could then consider taking advantage of public infrastructure or private development projects that would disturb sidewalks, curbs, or roads to facilitate installation of irrigation systems. For example, sidewalk repair or replacement projects that necessitate concrete removal could include installation of irrigation pipe from a water source to the planting well before concrete is re-poured. This could also be implemented when private development projects need to disturb sidewalks, curbs, or streets (the City could consider making this a requirement for private development projects). Over time, the number of tree planting sites with installed irrigation infrastructure would increase. This approach would require inter-department coordination between the Parks Division and the Planning and Public Works Departments.

Another option for the City to consider is requiring downtown redevelopment projects that impact City trees, or are otherwise required to plant trees in the City right-of-way, to install irrigation systems to affected tree planting sites. This effort would shift the costs of system installation to project applicants. The City's Municipal Code may need to be updated to include such a requirement.

4.3 Recommended Replacement Tree Species

To support tree planting recommendations included in this STMP, a recommended tree list was generated that promotes species diversity within the Plan area (Appendix H – Recommended Tree Planting List). The species list includes consideration of known species performance and pest issues, Redding's' climate, tree sizes at maturity, and the availability in local nurseries. Development of the tree planting list also considered the following attributes:

- Planting elevation range: 500 to 560 feet above sea level
- Average annual rainfall: 34.61 inches
- Sunset climate zone: Zone 9
- USDA hardiness zone: Zone 10
- Soil type: Perkins gravelly loam

This STMP recommends that the City avoid planting liquidambar, London plane trees, crape myrtles, and scarlet oaks in the Plan area in the future in order to reduce their high composition in the Plan area's tree population. Aside from the relatively large composition of these four species, no single genus exceeds the recommended threshold of 20% for genus diversity and the remaining 31 species individually compose 10% or less of the Plan area's tree population. There are numerous species within the Plan area that may be planted as replacement or new tree plantings without encroaching on the recommended limits of species composition. Consideration for species composition and diversity when planting trees should focus on (1) species overall representation in the City's Downtown Core tree population, (2) the neighborhood level representation, and (3) the street-level representation, in that order and with the most emphasis placed on the Plan area-level representation.

Proper tree selection includes planting the right tree species in the right place, considering both the present and future size of the tree and planting space. The planting location should be of sufficient size that the selected tree species will be able to reach its mature size without conflict. Selecting the right species in the right place will avoid many problems with expensive infrastructure damage repair and expenses in the future. Good selection results in lower pruning

costs, minimal root barrier installations, and fewer hardscape repairs, maintenance needs, and future tree replacements.

When selecting a replacement tree, the factors that determined the removal of the original tree must first be considered. Even well-designed landscapes will have specified trees that may not perform well in a particular location due to many unforeseeable factors. These factors should be thoroughly explored before replanting occurs. Choosing to replant with the same species could eventually result in the same removal action for the same reasons. There may be significant benefits to replanting the area with a different species altogether. The key for planting trees is to think beyond the present and plan for the future, realizing that most tree benefits are offered by mature trees.

When replacing trees, typically a 15-gallon size is the smallest the City should consider, unless conducting a restoration planting of native trees, such as along a creek where smaller stock, seeds, seedlings and 1- and 5-gallon trees may be appropriate. Although larger trees are more expensive and require a larger planting hole, they can provide the desired benefits more quickly.

Appendix H presents a recommended tree planting list prepared for Redding's unique landscape, urban forest, and climate characteristics. Preferred replacement trees are consistent with the Comprehensive Tree Plan but have been updated with species currently found to be established in the landscape and trees previously unlisted, but are known to thrive in Redding's environment. Also, the goal is to let no species represent more than 10% and no genus more than 20% of the community forest. The recommended replacement trees include species that are generally known to perform well, not have significant pest or disease issues, and score well amongst city urban foresters. No tree is without its potential issues, but the list below includes trees that are most likely to result in fewer issues over the life of the tree.

Based on our research, local nurseries do not have adequate stocks for most species of trees, especially at the 15-gallon recommended replacement tree size. These nurseries may have useful tree replacement specimens for small plantings, but whenever larger specimens are required, it is recommended that a larger wholesale tree grower is contacted. It is beneficial for replacement trees to be acquired from a similar climate as Redding, which will result in a higher tree establishment rate. Large wholesale tree nurseries are better suited for medium to large tree replacement acquisitions and would have species that are grown in a similar climate.

The recommended tree species list is provided in Appendix H and is broken down by tree size at maturity. This variable is important to avoid planting large trees beneath utility lines, necessitating aggressive clearance pruning or premature removal due to line conflict. Tree planting site size is also a consideration when selecting trees. As presented above, the currently-vacant planting sites can accommodate 97 small trees, 58 medium trees, and 9 large trees. When

selecting species for future tree planting in the Plan area to replace removed trees, the City should consider the size of planting wells constraints, growth obstructions, and the species diversity recommendations included in this STMP.

4.4 Tree Planting and Care Guidelines

CAL FIRE provides valuable guidelines and standards for planting, establishing, and maintaining newly-planted urban trees. These guidelines cover tree planting, tree training, root management, pruning, and irrigating recommendations and can be found at http://www.fire.ca.gov/resource_mgt/resource_mgt_urbanforestry. It is recommended that tree planting efforts in the Plan area follow these established standards.

5.0 ADDITIONAL MANAGEMENT RECOMMENDATIONS

The following recommendations are provided for the City use in analyzing required tasks and planning for their completion.

1. Consider increasing the annual tree maintenance budget to adequately maintain trees in the Downtown Core (the benefits provided by the City's urban forest far outweigh projected maintenance costs).
2. Consider contracting out primary tree maintenance since it is the most efficient method of accomplishing routine maintenance and ensuring that it is completed.
3. Over time, work to achieve a goal of no single species representing more than 10% of Plan area's forest and no single genus representing more than 20% of the community forest. Avoid planting liquidambars, London plane trees, crape myrtles, or scarlet oaks in the Plan area in the future.
4. Utilize the provided 5- and 7-year budget cycle projections as a gauge to compare bid submittals for the City tree maintenance needs. Adjust the budget cycle to capture actual trim cycles, so that if trees are on an average 5-year, 6-year, or longer cycle, the costs are evened out and some pruning is done every year, working within the City's budget.
5. As budget allows, initiate a tree management software program. Maintain a tree inventory database so that it does not become outdated and unusable. Require staff and contractors to provide digital information regarding trees removed, trimmed, etc., throughout the year and update the master database accordingly.
6. Consider conducting a City-wide tree inventory and developing a City-wide urban forest management plan. The analysis and recommendations included in this STMP can be scaled up and revised to address management of urban trees on a City-wide scale.

6.0 ARBORIST'S STATEMENT

This report provides conclusions and recommendations based on an examination of the trees and surrounding site by ISA Certified Arborists. Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees.

No hazard assessments, focused health or condition assessments, root crown excavations or investigations, or internal probing was performed during the tree assessments. Therefore, the presence or absence of internal decay or other hidden inferiorities in individual trees could not be confirmed. It is recommended that any large tree proposed for preservation in an area that receives human use be thoroughly inspected for internal or subterranean decay by a qualified arborist before finalizing preservation plans, and appropriate mitigation should be enacted to reduce potential risk.

Arborists cannot detect every condition that could possibly lead to the failure of a tree. Trees are living organisms that fail in ways not fully understood. Conditions are often hidden within trees and belowground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. There are no guarantees that a tree's condition will not change over a short or long period due to weather, cultural, or environmental conditions. Trees can be managed but not controlled.

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APPENDIX A

Community Meeting Comment Notes

Appendix A
Community Meeting Comment Notes

The following comments were received during the Community Meeting for the Downtown Redding Street Tree Plan on June 27, 2017, at 5:30 PM in the Community Room at City Hall, 777 Cypress St, Redding, CA.

1) Supplement street trees with fruit bearing trees to reduce the burden of poverty. See Todmorden, UK and "Coping with Poverty: Impacts of Environment and Attention in the Inner City" (Dr. Frances Kuo, 2001).
2) Where is the one very good tree?
3) Your current issues with trees are: 1) Trimming is uneven, unshaped trees end up lopsided and it seems the only concern is to cut off electric utility lines; 2) If the City forces planting as a part of development (beautification) they should do a better job of maintaining; 3) Some trees in downtown are allowed to grow too large – to the point of being dangerous; and 4) Someone should look specifically at Pine Street at Eureka Way, Market Street, and California Street at Placer and Sacramento Streets.
4) What if the new trees in the old downtown mall were part of a sort of marketing or branding vision? Something that could be celebrated with a downtown festival/celebration in the future? I'm thinking of the vibrant pinks of red buds or white/pink dogwoods or some other spectacular bloom. Thank you! Urban trees are so important.
5) This is a great start, getting an inventory and condition of trees. I am looking forward to your progress.
6) The goal should be attractive shade canopies shading the street like in Chico. Make a given block all one tree for better canopy. Do not sacrifice a quality place in favor of ease of maintenance.
7) Great work. Keep in mind all the shade lost with the mall removal – trees will help so much with the lowered temperature and commuter shade.
8) Thank you for having this meeting. I am a member of Audubon. I am attending this meeting to provide information to Audubon members. We have about 400 members in this area. We hope that the trees planted will provide habitat for birds (and also food?).
9) I'd like to see images of what is proposed. Need any help, feel free to contact.
10) Thank you – please look into the UVA/UVB rays – all under-reported! Soil sample for pH and toxic aluminum! The bark and leaves – damaged.
11) A) Include climate adaptation into your evaluation and report. Quantification (as much as possible) would be useful for obtaining grants as well as reporting to the California state regulatory agencies who are increasingly interested in adaptation efforts.
    B) Hopefully much effort will be placed on planting natives as much as possible. Hopefully to promote low water use, wildlife habitat and food, and sense of place!
    Regarding pushback from businesses: perhaps developing a display-worthy certificate or other recognition for designating them as a Tree City California/USA business, may be worth a thought or two.

APPENDIX B

Tree Inventory Data Attributes

Tree Inventory Data Attributes

Data Collection Attributes	Data Realm	Model 1 *	Model 2	Collection Process**	Description
Maintenance need	Management	CAL FIRE	iTree	Field	Drop down: Priority 1 removal, priority 2 removal, priority 3 removal, priority 1 prune, priority 2 prune, large tree routine prune, small tree routine prune, training prune, stump removal, plant tree.
Clearance required	Management	CAL FIRE		Field	Drop down: Clearance, Visibility, None. Existing clearance issues in occupied sites. Existing issues and potential issues in vacant sites
Hardscape damage	Management	CAL FIRE	iTree	Field	Drop down: Lift, Crack, Both, None.
Mapping coordinate	Site	CAL FIRE	iTree	Field	Tree trunk or approximate center of vacant site. Latitude and longitude. DD° MM.MM'.
Street name	Site	CAL FIRE		GIS	City or State official street name
Side of lot	Site	CAL FIRE		GIS	Front, side, rear
Block side	Site	CAL FIRE		GIS	Cardinal direction (N, S, E, W)
Tree number	Site	CAL FIRE	iTree	Field	Each site assigned a unique number.
Location	Site	CAL FIRE		GIS	Within or outside public ROW (surveyed only sites within public ROW)
Overhead utility line	Site	CAL FIRE		Field	Drop down: Yes, No
Grow Space	Site	CAL FIRE		Field	Drop down: T - tree lawn, W - well/pit, M - median, P - raised planter, O - open/unrestricted, I - island, U - unmaintained area
Space Size	Site	CAL FIRE		Field	Narrowest dimension of grow space in feet.
Species	Tree	CAL FIRE	iTree	Field	Enter species code. *Genus, species,* and common name entered in GIS
Stem Count	Tree	CAL FIRE		Field	Drop down: Number of main stems originating below 4 1/2 feet height from ground level up to 4 total stems
Diameter (D1, D2, D3…)	Tree	CAL FIRE	iTree	Field	Diameter of each main stem taken to nearest inch
Condition	Tree	CAL FIRE		Field	Drop down: Excellent, Very good, Good, Fair, Poor, Critical, Dead
Notes	Tree	CAL FIRE		Field	Disease, insects, mechanical damage, dead top height, self-seeded, height at diameter, etc.
Existing irrigation	Site	City		Field	Drop down: Yes, no, unknown
Underground utility line	Site	City		GIS	Drop down: Yes, no, unkown
Lift Dimension	Site	City		Field	Drop down: <.25, >=.25
Crack Dimension	Site	City		Field	Drop down: <.25, >=.25
Actual land use	Site	iTree		GIS	Select appropriate iTree land use
Survey Date	Survey	iTree		GIS	Saved in file name
Surveyor ID	Survey	iTree		GIS	Saved in file name
Total tree height	Tree	iTree		Field	Estimate
Height to crown base	Tree	iTree		Field	Estimate
Crown width N-S	Tree	iTree		GIS	Estimates confirmed using aerial photograph
Crown width E-W	Tree	iTree		GIS	Estimates confirmed using aerial photograph
Percent crown missing	Tree	iTree		Field	Percent of the crown volume that is not occupied by branches and leaves 0 to 100%
Crown health	Tree	iTree		Field	Live crown ratio 0 to 100%
Crown light exposure	Tree	iTree		Field	Drop down: 1, 2, 3, 4, 5. Number of sides of the tree receiving sunlight from above (maximum of 5)
Status	Tree	iTree		Field	Planted is default, self-seeded entered into notes in field if applicable
Height at diameter measurement	Tree	iTree		Field	Height entered into notes in field if applicable

*Source of data field (CAL FIRE = CAL FIRE grant data collection requirement; i-Tree = i-Tree required field; City = requested by City)

**Where data was collected/entered (Field = during field mapping efforts; GIS = during office data processing)

APPENDIX C

Tree Information Matrix

Tree Information Matrix

Tree Number	Scientific Name	Common Name	Quantity of Stems	Cumulative Diameter at Breast Height (in.)	Height (ft.)	Maintenance Need	General Condition	Street	Cal Trans ROW
1	*Liriodendron tulipifera*	Tulip tree	1	8	15	Large tree routine prune	Poor	California Street	273
2	*Liriodendron tulipifera*	Tulip tree	1	14	35	Large tree routine prune	Fair	California Street	273
3	*Platanus acerifolia*	London planetree	1	20	50	Large tree routine prune	Good	California Street	273
4	*Liriodendron tulipifera*	Tulip tree	1	18	50	Large tree routine prune	Good	Placer Street	NA
5	*Liquidambar styraciflua*	American sweetgum	1	22	60	Large tree routine prune	Good	Placer Street	NA
6	*Magnolia grandiflora*	Southern magnolia	1	5	15	Small tree routine prune	Poor	California Street (Parking Lot)	NA
7	*Malus spp.*	Crabapple	1	4	10	Small tree routine prune	Poor	Market Street	NA
8	*Quercus coccinea*	Scarlet oak	1	17	50	Large tree routine prune	Good	Pine Street	273
9	*Quercus coccinea*	Scarlet oak	1	16	55	Large tree routine prune	Good	Pine Street	273
10	*Liquidambar styraciflua*	American sweetgum	1	11	35	Large tree routine prune	Good	Tehama Street	44
11	*Quercus rubra*	Red oak	1	14	30	Large tree routine prune	Good	Market Street	NA
12	*Quercus coccinea*	Scarlet oak	1	27	40	Large tree routine prune	Good	South Street	NA
13	*Pistacia chinensis*	Chinese pistache	1	28	50	Large tree routine prune	Good	Pine Street	273
14	*Fraxinus oxycarpa*	Raywood ash	1	8	20	Large tree routine prune	Fair	Tehama Street	NA
15	*Lagerstroemia indica*	Crape myrtle	1	3	10	Small tree routine prune	Fair	Tehama Street	273
16	*Liquidambar styraciflua*	American sweetgum	1	17	45	Large tree routine prune	Fair	Tehama Street	273
17	*Quercus coccinea*	Scarlet oak	1	15	45	Large tree routine prune	Fair	Pine Street	273
18	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Poor	Butte Street	NA
19	*Platanus acerifolia*	London planetree	1	17	35	Large tree routine prune	Fair	Butte Street	NA
20	*Zelkova serrata*	Sawleaf zelkova	1	18	40	Large tree routine prune	Good	Butte Street	NA
21	*Liquidambar styraciflua*	American sweetgum	1	21	65	Large tree routine prune	Good	Yuba Street	NA
22	*Liquidambar styraciflua*	American sweetgum	1	25	70	Large tree routine prune	Good	Yuba Street	NA
23	*Quercus coccinea*	Scarlet oak	1	25	65	Large tree routine prune	Good	Pine Street	273
24	*Liquidambar styraciflua*	American sweetgum	1	19	55	Large tree routine prune	Good	Yuba Street	NA
25	*Cinnamomum camphora*	Camphor tree	1	14	30	Large tree routine prune	Fair	Yuba Street	NA
26	*Pistacia chinensis*	Chinese pistache	1	21	55	Large tree routine prune	Good	South Street	NA
27	*Quercus wislizenii*	Interior live oak	1	13	20	Large tree routine prune	Poor	California Street	NA
28	*Platanus acerifolia*	London planetree	1	12	20	Large tree routine prune	Poor	California Street	NA
29	*Quercus ilex*	Holly oak	1	10	15	Large tree routine prune	Poor	California Street	NA
30	*Liriodendron tulipifera*	Tulip tree	1	18	40	Large tree routine prune	Good	California Street	NA
31	*Quercus suber*	Cork oak	1	22	30	Large tree routine prune	Fair	California Street	NA
32	*Liquidambar styraciflua*	American sweetgum	1	16	40	Large tree routine prune	Good	Shasta Street	NA
33	*Quercus coccinea*	Scarlet oak	1	19	45	Large tree routine prune	Good	Pine Street	273
34	*Liquidambar styraciflua*	American sweetgum	1	17	45	Large tree routine prune	Good	Tehama Street	44
35	*Liquidambar styraciflua*	American sweetgum	1	18	55	Large tree routine prune	Fair	Tehama Street	44
36	*Quercus coccinea*	Scarlet oak	1	23	65	Large tree routine prune	Good	Pine Street	273
37	*Quercus coccinea*	Scarlet oak	1	19	45	Large tree routine prune	Good	Pine Street	273
38	*Quercus coccinea*	Scarlet oak	1	20	50	Large tree routine prune	Good	Pine Street	273
39	*Quercus coccinea*	Scarlet oak	1	19	50	Large tree routine prune	Good	Pine Street	273
40	*Cinnamomum camphora*	Camphor tree	1	29	65	Large tree routine prune	Good	Yuba Street	NA
41	*Cinnamomum camphora*	Camphor tree	1	17	40	Large tree routine prune	Fair	Yuba Street	NA
42	*Liquidambar styraciflua*	American sweetgum	1	9	25	Large tree routine prune	Good	East Street	NA
43	*Liquidambar styraciflua*	American sweetgum	1	8	25	Large tree routine prune	Fair	East Street	NA
44	*Platanus acerifolia*	London planetree	1	20	25	Priority 2 prune	Poor	East Street	NA
45	*Quercus coccinea*	Scarlet oak	1	16	35	Priority 1 prune	Good	East Street	NA
46	*Quercus coccinea*	Scarlet oak	1	26	50	Priority 2 removal	Critical	East Street	NA
47	*Quercus coccinea*	Scarlet oak	1	24	55	Large tree routine prune	Good	East Street	NA
48	*Liquidambar styraciflua*	American sweetgum	1	16	50	Large tree routine prune	Good	Placer Street	NA
49	*Liquidambar styraciflua*	American sweetgum	1	14	50	Large tree routine prune	Good	Placer Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
50	*Liquidambar styraciflua*	American sweetgum	1	16	50	Large tree routine prune	Fair	Placer Street	NA
51	*Zelkova serrata*	Sawleaf zelkova	1	25	45	Large tree routine prune	Good	Butte Street	NA
52	*Zelkova serrata*	Sawleaf zelkova	1	23	40	Large tree routine prune	Good	Butte Street	NA
53	*Zelkova serrata*	Sawleaf zelkova	1	11	20	Large tree routine prune	Fair	Butte Street	NA
54	*Quercus coccinea*	Scarlet oak	1	22	50	Large tree routine prune	Good	East Street	NA
55	*Quercus coccinea*	Scarlet oak	1	20	60	Large tree routine prune	Good	East Street	NA
56	*Quercus coccinea*	Scarlet oak	1	22	60	Large tree routine prune	Good	East Street	NA
57	*Quercus coccinea*	Scarlet oak	1	19	35	Priority 2 prune	Poor	East Street	NA
58	*Quercus coccinea*	Scarlet oak	1	14	30	Priority 3 removal	Critical	East Street	NA
59	*Zelkova serrata*	Sawleaf zelkova	1	21	30	Large tree routine prune	Good	Yuba Street	NA
60	*Zelkova serrata*	Sawleaf zelkova	1	22	30	Large tree routine prune	Good	Yuba Street	NA
61	*Liquidambar styraciflua*	American sweetgum	1	13	45	Large tree routine prune	Fair	Yuba Street	NA
62	*Liquidambar styraciflua*	American sweetgum	1	15	45	Large tree routine prune	Fair	Tehama Street	273
63	*Liquidambar styraciflua*	American sweetgum	1	16	45	Large tree routine prune	Fair	Tehama Street	273
64	*Quercus suber*	Cork oak	1	26	50	Large tree routine prune	Good	California Street	NA
65	*Liquidambar styraciflua*	American sweetgum	1	16	50	Large tree routine prune	Good	Shasta Street	NA
66	*Liquidambar styraciflua*	American sweetgum	1	21	70	Large tree routine prune	Good	Shasta Street	NA
67	*Quercus coccinea*	Scarlet oak	1	26	45	Large tree routine prune	Good	East Street	NA
68	*Quercus coccinea*	Scarlet oak	1	23	45	Large tree routine prune	Good	East Street	NA
69	*Quercus coccinea*	Scarlet oak	1	20	55	Large tree routine prune	Good	Pine Street	273
70	*Quercus coccinea*	Scarlet oak	1	17	45	Large tree routine prune	Good	Pine Street	273
71	*Fraxinus oxycarpa*	Raywood ash	1	14	30	Large tree routine prune	Fair	East Street	NA
72	*Fraxinus oxycarpa*	Raywood ash	1	18	35	Large tree routine prune	Fair	East Street	NA
73	*Platanus acerifolia*	London planetree	1	8	30	Large tree routine prune	Good	East Street	NA
74	*Platanus acerifolia*	London planetree	1	7	30	Large tree routine prune	Good	East Street	NA
75	*Platanus acerifolia*	London planetree	2	13	30	Large tree routine prune	Good	East Street	NA
76	*Cinnamomum camphora*	Camphor tree	1	29	55	Large tree routine prune	Good	Shasta Street	44
77	*Cinnamomum camphora*	Camphor tree	2	32	55	Large tree routine prune	Good	Shasta Street	44
78	*Cinnamomum camphora*	Camphor tree	1	26	40	Large tree routine prune	Fair	Shasta Street	44
79	*Cinnamomum camphora*	Camphor tree	1	15	20	Large tree routine prune	Fair	Shasta Street	44
80	*Cinnamomum camphora*	Camphor tree	1	30	40	Large tree routine prune	Fair	Shasta Street	44
81	*Cinnamomum camphora*	Camphor tree	1	25	50	Large tree routine prune	Good	Shasta Street	44
82	*Quercus coccinea*	Scarlet oak	1	14	45	Large tree routine prune	Good	Pine Street	273
83	*Quercus coccinea*	Scarlet oak	1	20	50	Large tree routine prune	Good	Pine Street	273
84	*Quercus coccinea*	Scarlet oak	1	16	40	Large tree routine prune	Fair	Pine Street	273
85	*Zelkova serrata*	Sawleaf zelkova	1	15	30	Large tree routine prune	Good	Shasta Street	44
86	*Quercus coccinea*	Scarlet oak	1	19	60	Large tree routine prune	Good	Pine Street	44
87	*Quercus coccinea*	Scarlet oak	1	20	60	Large tree routine prune	Good	Pine Street	44
88	*Quercus coccinea*	Scarlet oak	1	18	50	Large tree routine prune	Good	Pine Street	44
89	*Quercus coccinea*	Scarlet oak	1	17	35	Large tree routine prune	Good	Pine Street	44
90	*Platanus acerifolia*	London planetree	1	17	45	Large tree routine prune	Good	Pine Street	44
91	*Platanus acerifolia*	London planetree	1	20	50	Large tree routine prune	Good	Pine Street	44
92	*Platanus acerifolia*	London planetree	1	23	50	Large tree routine prune	Good	Pine Street	44
93	*Liriodendron tulipifera*	Tulip tree	1	19	55	Large tree routine prune	Good	Eureka Way	NA
94	*Liriodendron tulipifera*	Tulip tree	1	21	55	Large tree routine prune	Good	Eureka Way	NA
95	*Liriodendron tulipifera*	Tulip tree	1	24	55	Large tree routine prune	Good	Eureka Way	NA
96	*Liriodendron tulipifera*	Tulip tree	1	28	55	Large tree routine prune	Good	Eureka Way	NA
97	*Quercus coccinea*	Scarlet oak	1	25	60	Large tree routine prune	Good	East Street	NA
98	*Lagerstroemia indica*	Crape myrtle	1	8	25	Large tree routine prune	Good	East Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
99	*Lagerstroemia indica*	Crape myrtle	1	8	25	Large tree routine prune	Good	East Street	NA
100	*Lagerstroemia indica*	Crape myrtle	1	6	20	Large tree routine prune	Good	East Street	NA
101	*Quercus coccinea*	Scarlet oak	1	22	60	Large tree routine prune	Good	East Street	NA
102	*Quercus coccinea*	Scarlet oak	1	24	65	Large tree routine prune	Good	East Street	NA
103	*Quercus coccinea*	Scarlet oak	1	23	65	Large tree routine prune	Good	East Street	NA
104	*Platanus acerifolia*	London planetree	1	32	70	Large tree routine prune	Fair	Eureka Way	NA
105	*Pyrus calleryana*	Callery pear	1	4	20	Large tree routine prune	Good	Eureka Way	NA
106	*Pyrus calleryana*	Callery pear	1	4	15	Large tree routine prune	Good	Eureka Way	NA
107	*Pyrus calleryana*	Callery pear	1	8	25	Large tree routine prune	Good	Eureka Way	NA
108	*Pyrus calleryana*	Callery pear	1	8	25	Large tree routine prune	Good	Eureka Way	NA
109	*Fraxinus oxycarpa*	Raywood ash	1	12	20	Priority 3 removal	Poor	Eureka Way	NA
110	*Fraxinus oxycarpa*	Raywood ash	1	9	20	Priority 3 removal	Poor	Eureka Way	NA
111	*Platanus acerifolia*	London planetree	1	24	35	Large tree routine prune	Fair	Pine Street	NA
112	*Pyrus calleryana*	Callery pear	1	6	20	Large tree routine prune	Good	Pine Street	NA
113	*Pyrus calleryana*	Callery pear	1	6	20	Large tree routine prune	Good	Pine Street	NA
114	*Pyrus calleryana*	Callery pear	1	3	15	Large tree routine prune	Good	Pine Street	NA
115	*Pyrus calleryana*	Callery pear	1	3	15	Large tree routine prune	Good	Pine Street	NA
116	*Pyrus calleryana*	Callery pear	1	3	15	Large tree routine prune	Good	Pine Street	NA
117	*Pyrus calleryana*	Callery pear	1	3	15	Large tree routine prune	Good	Pine Street	NA
118	*Pyrus calleryana*	Callery pear	1	3	15	Large tree routine prune	Good	Pine Street	NA
119	*Cinnamomum camphora*	Camphor tree	1	2	10	Training prune	Good	Trinity Street	NA
120	*Cinnamomum camphora*	Camphor tree	2	23	25	Large tree routine prune	Fair	Trinity Street	NA
121	*Cinnamomum camphora*	Camphor tree	1	17	30	Large tree routine prune	Fair	Trinity Street	NA
122	*Cinnamomum camphora*	Camphor tree	1	13	30	Large tree routine prune	Fair	Trinity Street	NA
123	*Cinnamomum camphora*	Camphor tree	1	14	30	Large tree routine prune	Fair	Trinity Street	NA
124	*Cinnamomum camphora*	Camphor tree	1	18	35	Large tree routine prune	Fair	Trinity Street	NA
125	*Cinnamomum camphora*	Camphor tree	1	18	35	Large tree routine prune	Fair	East Street	NA
126	*Cinnamomum camphora*	Camphor tree	1	14	35	Large tree routine prune	Poor	East Street	NA
127	*Pyrus calleryana*	Callery pear	1	5	20	Large tree routine prune	Good	East Street	NA
128	*Cinnamomum camphora*	Camphor tree	1	14	30	Large tree routine prune	Poor	East Street	NA
129	*Cinnamomum camphora*	Camphor tree	1	10	20	Large tree routine prune	Poor	East Street	NA
130	*Cinnamomum camphora*	Camphor tree	1	8	10	Priority 3 removal	Critical	East Street	NA
131	*Liquidambar styraciflua*	American sweetgum	1	11	35	Large tree routine prune	Good	Tehama Street	44
132	*Liquidambar styraciflua*	American sweetgum	1	11	35	Large tree routine prune	Good	Tehama Street	44
133	*Liquidambar styraciflua*	American sweetgum	1	19	55	Large tree routine prune	Good	Tehama Street	44
134	*Liquidambar styraciflua*	American sweetgum	1	19	65	Large tree routine prune	Good	Tehama Street	44
135	*Liquidambar styraciflua*	American sweetgum	1	12	45	Large tree routine prune	Good	Tehama Street	44
136	*Liquidambar styraciflua*	American sweetgum	1	11	50	Large tree routine prune	Good	Tehama Street	44
137	*Lagerstroemia indica*	Crape myrtle	1	4	15	Small tree routine prune	Good	Butte Street	NA
138	*Liquidambar styraciflua*	American sweetgum	1	13	50	Large tree routine prune	Good	Butte Street	NA
139	*Quercus coccinea*	Scarlet oak	1	16	30	Large tree routine prune	Fair	Pine Street	273
140	*Quercus coccinea*	Scarlet oak	1	15	55	Large tree routine prune	Fair	Pine Street	273
141	*Liquidambar styraciflua*	American sweetgum	1	17	50	Large tree routine prune	Good	Tehama Street	44
142	*Liquidambar styraciflua*	American sweetgum	1	12	45	Large tree routine prune	Good	Tehama Street	44
143	*Liquidambar styraciflua*	American sweetgum	1	12	45	Large tree routine prune	Good	Tehama Street	44
144	*Liquidambar styraciflua*	American sweetgum	1	16	55	Large tree routine prune	Good	Tehama Street	44
145	*Liquidambar styraciflua*	American sweetgum	1	17	60	Large tree routine prune	Good	Tehama Street	44
146	*Liquidambar styraciflua*	American sweetgum	1	15	50	Large tree routine prune	Good	Tehama Street	44
147	*Liquidambar styraciflua*	American sweetgum	1	13	45	Large tree routine prune	Good	Tehama Street	44

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
148	*Liquidambar styraciflua*	American sweetgum	1	17	55	Large tree routine prune	Good	Market Street	44
149	*Liquidambar styraciflua*	American sweetgum	1	21	70	Large tree routine prune	Good	Market Street	44
150	*Liquidambar styraciflua*	American sweetgum	1	17	50	Large tree routine prune	Good	Market Street	44
151	*Liquidambar styraciflua*	American sweetgum	1	9	30	Large tree routine prune	Poor	Market Street	44
152	*Liquidambar styraciflua*	American sweetgum	1	21	60	Large tree routine prune	Good	Market Street	44
153	*Liquidambar styraciflua*	American sweetgum	1	20	60	Large tree routine prune	Good	Market Street	44
154	*Liquidambar styraciflua*	American sweetgum	1	16	50	Large tree routine prune	Fair	Shasta Street	NA
155	*Liquidambar styraciflua*	American sweetgum	1	19	60	Large tree routine prune	Good	Shasta Street	NA
156	*Cinnamomum camphora*	Camphor tree	1	32	50	Large tree routine prune	Good	Shasta Street	NA
157	*Cinnamomum camphora*	Camphor tree	1	21	50	Large tree routine prune	Good	Shasta Street	NA
158	*Quercus coccinea*	Scarlet oak	1	19	35	Large tree routine prune	Poor	Pine Street	273
159	*Quercus coccinea*	Scarlet oak	1	12	35	Large tree routine prune	Good	Pine Street	273
160	*Quercus coccinea*	Scarlet oak	1	16	45	Large tree routine prune	Good	Pine Street	273
161	*Quercus coccinea*	Scarlet oak	1	18	55	Large tree routine prune	Fair	Pine Street	44
162	*Quercus coccinea*	Scarlet oak	1	20	55	Large tree routine prune	Good	Pine Street	44
163	*Quercus coccinea*	Scarlet oak	1	19	55	Large tree routine prune	Good	Pine Street	44
164	*Platanus acerifolia*	London planetree	1	19	35	Large tree routine prune	Fair	Pine Street	44
165	*Platanus acerifolia*	London planetree	1	28	45	Large tree routine prune	Fair	Eureka Way	44
166	*Platanus acerifolia*	London planetree	1	23	50	Large tree routine prune	Good	Eureka Way	44
167	*Platanus acerifolia*	London planetree	1	20	55	Large tree routine prune	Good	Eureka Way	44
168	*Platanus acerifolia*	London planetree	1	29	65	Large tree routine prune	Good	Eureka Way	44
169	*Zelkova serrata*	Sawleaf zelkova	1	20	40	Large tree routine prune	Good	Shasta Street	NA
170	*Cinnamomum camphora*	Camphor tree	1	33	35	Large tree routine prune	Fair	Shasta Street	NA
171	*Platanus acerifolia*	London planetree	1	16	45	Large tree routine prune	Good	Trinity Street	NA
172	*Platanus acerifolia*	London planetree	1	24	60	Large tree routine prune	Good	Trinity Street	NA
173	*Platanus acerifolia*	London planetree	1	18	35	Large tree routine prune	Fair	Trinity Street	NA
174	*Juglans regia*	English walnut	1	14	20	Large tree routine prune	Poor	Trinity Street	NA
175	*Quercus coccinea*	Scarlet oak	1	11	40	Large tree routine prune	Good	Pine Street	NA
176	*Quercus coccinea*	Scarlet oak	1	17	40	Priority 2 removal	Critical	Pine Street	NA
177	*Quercus coccinea*	Scarlet oak	1	16	30	Priority 2 removal	Critical	Pine Street	NA
178	*Platanus acerifolia*	London planetree	1	26	45	Large tree routine prune	Fair	Pine Street	NA
179	*Platanus acerifolia*	London planetree	1	16	45	Large tree routine prune	Fair	Pine Street	NA
180	*Liriodendron tulipifera*	Tulip tree	1	20	50	Large tree routine prune	Good	Eureka Way	299
181	*Liriodendron tulipifera*	Tulip tree	1	20	55	Large tree routine prune	Fair	California Street	NA
182	*Quercus suber*	Cork oak	1	30	50	Large tree routine prune	Good	California Street	NA
183	*Zelkova serrata*	Sawleaf zelkova	1	19	35	Priority 2 prune	Fair	Shasta Street	NA
184	*Liquidambar styraciflua*	American sweetgum	1	15	45	Large tree routine prune	Good	Market Street	44
185	*Liquidambar styraciflua*	American sweetgum	1	22	65	Large tree routine prune	Good	Market Street	44
186	*Quercus suber*	Cork oak	1	22	35	Large tree routine prune	Good	California Street	NA
187	*Quercus suber*	Cork oak	1	31	50	Large tree routine prune	Good	California Street	NA
188	*Liriodendron tulipifera*	Tulip tree	1	23	55	Large tree routine prune	Good	California Street	NA
189	*Platanus acerifolia*	London planetree	1	17	40	Large tree routine prune	Good	California Street	NA
190	*Platanus acerifolia*	London planetree	1	22	45	Large tree routine prune	Good	California Street	NA
191	*Quercus ilex*	Holly oak	1	20	25	Large tree routine prune	Fair	California Street	NA
192	*Liriodendron tulipifera*	Tulip tree	1	14	35	Large tree routine prune	Fair	California Street	NA
193	*Liquidambar styraciflua*	American sweetgum	1	13	40	Large tree routine prune	Fair	Tehama Street	NA
194	*Liquidambar styraciflua*	American sweetgum	1	13	40	Large tree routine prune	Poor	Tehama Street	NA
195	*Liquidambar styraciflua*	American sweetgum	1	17	55	Large tree routine prune	Good	Tehama Street	273
196	*Liquidambar styraciflua*	American sweetgum	1	15	55	Large tree routine prune	Good	Tehama Street	273

Tree Information Matrix

Tree Number	Scientific Name	Common Name	Quantity of Stems	Cumulative Diameter at Breast Height (in.)	Height (ft.)	Maintenance Need	General Condition	Street	Cal Trans ROW
197	*Pyrus calleryana*	Callery pear	1	4	20	Large tree routine prune	Good	Tehama Street	273
198	*Liquidambar styraciflua*	American sweetgum	1	15	50	Large tree routine prune	Good	Tehama Street	273
199	*Liquidambar styraciflua*	American sweetgum	1	15	50	Large tree routine prune	Good	Tehama Street	273
200	*Magnolia grandiflora*	Southern magnolia	2	16	20	Large tree routine prune	Poor	California Street (Parking Lot)	NA
201	*Magnolia grandiflora*	Southern magnolia	1	14	30	Large tree routine prune	Fair	California Street (Parking Lot)	NA
202	*Magnolia grandiflora*	Southern magnolia	1	11	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
203	*Magnolia grandiflora*	Southern magnolia	1	16	30	Large tree routine prune	Good	California Street (Parking Lot)	NA
204	*Magnolia grandiflora*	Southern magnolia	1	16	30	Large tree routine prune	Good	California Street (Parking Lot)	NA
205	*Lagerstroemia indica*	Crape myrtle	1	1	5	Training prune	Poor	California Street (Parking Lot)	NA
206	*Cornus florida*	Flowering dogwood	1	6	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
207	*Cornus florida*	Flowering dogwood	1	8	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
208	*Lagerstroemia indica*	Crape myrtle	1	1	5	Training prune	Fair	California Street (Parking Lot)	NA
209	*Lagerstroemia indica*	Crape myrtle	1	1	5	Training prune	Fair	California Street (Parking Lot)	NA
210	*Cornus florida*	Flowering dogwood	1	8	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
211	*Lagerstroemia indica*	Crape myrtle	1	1	5	Training prune	Good	California Street (Parking Lot)	NA
212	*Lagerstroemia indica*	Crape myrtle	1	1	5	Training prune	Good	California Street (Parking Lot)	NA
213	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
214	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
215	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
216	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
217	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
218	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
219	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
220	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
221	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
222	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
223	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
224	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
225	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
226	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
227	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street (Parking Lot)	NA
228	*Cornus florida*	Flowering dogwood	1	8	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
229	*Cornus florida*	Flowering dogwood	1	8	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
230	*Cornus florida*	Flowering dogwood	1	8	25	Large tree routine prune	Good	California Street (Parking Lot)	NA
231	*Pyrus calleryana*	Callery pear	1	6	25	Large tree routine prune	Good	California Street	273
232	*Pyrus calleryana*	Callery pear	1	6	20	Large tree routine prune	Good	California Street	273
233	*Pyrus calleryana*	Callery pear	1	7	25	Large tree routine prune	Good	California Street	273
234	*Pyrus calleryana*	Callery pear	1	6	20	Large tree routine prune	Good	California Street	273
235	*Liriodendron tulipifera*	Tulip tree	1	14	35	Large tree routine prune	Fair	California Street	273
236	*Pyrus calleryana*	Callery pear	1	6	20	Large tree routine prune	Good	California Street	273
237	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
238	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
239	*Pyrus calleryana*	Callery pear	1	7	25	Large tree routine prune	Good	California Street	273
240	*Liriodendron tulipifera*	Tulip tree	1	17	50	Large tree routine prune	Good	California Street	273
241	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
242	*Platanus acerifolia*	London planetree	1	19	40	Large tree routine prune	Good	California Street	273
243	*Platanus acerifolia*	London planetree	1	21	30	Large tree routine prune	Fair	California Street	273
244	*Pyrus calleryana*	Callery pear	1	5	20	Large tree routine prune	Good	California Street	273
245	*Quercus coccinea*	Scarlet oak	1	18	50	Large tree routine prune	Good	Placer Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
246	*Quercus coccinea*	Scarlet oak	1	20	55	Large tree routine prune	Good	Placer Street	NA
247	*Liquidambar styraciflua*	American sweetgum	1	13	35	Large tree routine prune	Good	Placer Street	NA
248	*Liquidambar styraciflua*	American sweetgum	1	13	40	Large tree routine prune	Good	Placer Street	NA
249	*Pyrus calleryana*	Callery pear	1	1	6	Training prune	Fair	California Street	273
250	*Lagerstroemia indica*	Crape myrtle	1	1	7	Training prune	Fair	California Street	273
251	*Lagerstroemia indica*	Crape myrtle	1	1	7	Training prune	Fair	California Street	273
252	*Lagerstroemia indica*	Crape myrtle	1	1	7	Training prune	Fair	California Street	273
253	*Quercus rubra*	Red oak	1	10	35	Large tree routine prune	Good	Yuba Street	NA
254	*Quercus rubra*	Red oak	1	8	25	Large tree routine prune	Good	Yuba Street	NA
255	*Pyrus calleryana*	Callery pear	4	26	40	Large tree routine prune	Good	Yuba Street	NA
256	*Pyrus calleryana*	Callery pear	1	11	35	Large tree routine prune	Good	Yuba Street	NA
257	*Quercus rubra*	Red oak	1	8	30	Large tree routine prune	Good	Yuba Street	NA
258	*Pyrus calleryana*	Callery pear	1	9	25	Large tree routine prune	Good	Yuba Street	NA
259	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
260	*Liriodendron tulipifera*	Tulip tree	1	15	40	Large tree routine prune	Good	California Street	273
261	*Liriodendron tulipifera*	Tulip tree	1	18	45	Large tree routine prune	Good	California Street	273
262	*Liriodendron tulipifera*	Tulip tree	1	14	35	Large tree routine prune	Good	California Street	273
263	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
264	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
265	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
266	*Liriodendron tulipifera*	Tulip tree	1	17	50	Large tree routine prune	Poor	California Street	273
267	*Liriodendron tulipifera*	Tulip tree	1	16	40	Large tree routine prune	Fair	California Street	273
268	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
269	*Lagerstroemia indica*	Crape myrtle	1	3	10	Training prune	Good	California Street	273
270	*Fraxinus oxycarpa*	Raywood ash	1	8	15	Large tree routine prune	Fair	Tehama Street	NA
271	*Fraxinus oxycarpa*	Raywood ash	1	8	15	Large tree routine prune	Fair	Tehama Street	NA
272	*Liquidambar styraciflua*	American sweetgum	1	16	50	Large tree routine prune	Good	Yuba Street	NA
273	*Liquidambar styraciflua*	American sweetgum	1	10	45	Large tree routine prune	Good	Yuba Street	NA
274	*Ulmus parviflora*	Chinese elm	2	24	40	Large tree routine prune	Good	Yuba Street	NA
275	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Pine Street	273
276	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Pine Street	273
277	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Pine Street	273
278	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Pine Street	273
279	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Butte Street	NA
280	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Butte Street	NA
281	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Butte Street	NA
282	*Quercus rubra*	Red oak	1	1	15	Training prune	Good	Butte Street	NA
283	*Liquidambar styraciflua*	American sweetgum	1	12	45	Large tree routine prune	Fair	Yuba Street	NA
284	*Liquidambar styraciflua*	American sweetgum	1	13	50	Large tree routine prune	Good	Yuba Street	NA
285	*Quercus coccinea*	Scarlet oak	1	16	45	Large tree routine prune	Good	Pine Street	273
286	*Quercus coccinea*	Scarlet oak	1	16	45	Large tree routine prune	Fair	Pine Street	273
287	*Quercus coccinea*	Scarlet oak	1	14	45	Large tree routine prune	Good	Pine Street	273
288	*Quercus coccinea*	Scarlet oak	1	19	70	Large tree routine prune	Good	Pine Street	273
289	*Platanus acerifolia*	London planetree	1	28	85	Large tree routine prune	Good	Pine Street	273
290	*Platanus acerifolia*	London planetree	1	14	20	Large tree routine prune	Poor	Placer Street	NA
291	*Platanus acerifolia*	London planetree	1	26	80	Large tree routine prune	Good	Placer Street	NA
292	*Liquidambar styraciflua*	American sweetgum	1	14	40	Large tree routine prune	Good	Placer Street	NA
293	*Liquidambar styraciflua*	American sweetgum	1	12	30	Large tree routine prune	Good	Placer Street	NA
294	*Platanus acerifolia*	London planetree	1	22	55	Large tree routine prune	Good	East Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
295	*Platanus acerifolia*	London planetree	1	12	30	Large tree routine prune	Fair	East Street	NA
296	*Platanus acerifolia*	London planetree	1	14	35	Large tree routine prune	Fair	East Street	NA
297	*Platanus acerifolia*	London planetree	1	11	25	Large tree routine prune	Fair	East Street	NA
298	*Platanus acerifolia*	London planetree	1	14	50	Large tree routine prune	Good	East Street	NA
299	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	East Street	NA
300	*Platanus acerifolia*	London planetree	1	14	20	Large tree routine prune	Fair	East Street	NA
301	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	East Street	NA
302	*Fraxinus velutina 'Modesto'*	Modesto ash	1	17	55	Large tree routine prune	Fair	East Street	NA
303	*Cinnamomum camphora*	Camphor tree	1	15	25	Large tree routine prune	Fair	Market Street	273
304	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
305	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
306	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
307	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
308	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
309	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
310	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
311	*Robinia psuedoacacia*	Black locust	1	14	25	Large tree routine prune	Fair	Gold Street	NA
312	*Pistacia chinensis*	Chinese pistache	1	20	40	Large tree routine prune	Good	Pine Street	273
313	*Pistacia chinensis*	Chinese pistache	1	24	40	Large tree routine prune	Good	Pine Street	273
314	*Liriodendron tulipifera*	Tulip tree	1	21	45	Large tree routine prune	Fair	Pine Street	273
315	*Liriodendron tulipifera*	Tulip tree	1	16	40	Large tree routine prune	Fair	Pine Street	273
316	*Platanus acerifolia*	London planetree	1	28	40	Large tree routine prune	Fair	South Street	NA
317	*Cinnamomum camphora*	Camphor tree	1	16	25	Large tree routine prune	Good	South Street	NA
318	*Cinnamomum camphora*	Camphor tree	1	16	25	Large tree routine prune	Good	South Street	NA
319	*Cinnamomum camphora*	Camphor tree	1	15	20	Large tree routine prune	Fair	Market Street	NA
320	*Cinnamomum camphora*	Camphor tree	1	11	15	Large tree routine prune	Poor	Market Street	NA
321	*Cinnamomum camphora*	Camphor tree	1	12	20	Large tree routine prune	Fair	Market Street	NA
322	*Quercus rubra*	Red oak	1	12	30	Large tree routine prune	Good	Sacramento Street	NA
323	*Liquidambar styraciflua*	American sweetgum	1	12	30	Large tree routine prune	Fair	Sacramento Street	NA
324	*Pistacia chinensis*	Chinese pistache	1	25	50	Large tree routine prune	Good	Pine Street	273
325	*Quercus rubra*	Red oak	1	16	30	Large tree routine prune	Good	South Street	NA
326	*Quercus coccinea*	Scarlet oak	1	19	35	Large tree routine prune	Good	South Street	NA
327	*Quercus coccinea*	Scarlet oak	1	24	45	Priority 2 prune	Good	South Street	NA
328	*Quercus coccinea*	Scarlet oak	1	18	40	Large tree routine prune	Good	South Street	NA
329	*Zelkova serrata*	Sawleaf zelkova	1	16	30	Large tree routine prune	Poor	Sacramento Street	NA
330	*Zelkova serrata*	Sawleaf zelkova	1	18	35	Large tree routine prune	Fair	Sacramento Street	NA
331	*Zelkova serrata*	Sawleaf zelkova	1	22	35	Large tree routine prune	Fair	Sacramento Street	NA
332	*Pistacia chinensis*	Chinese pistache	1	28	50	Large tree routine prune	Good	Pine Street	273
333	*Pistacia chinensis*	Chinese pistache	1	13	35	Large tree routine prune	Fair	Pine Street	273
334	*Pistacia chinensis*	Chinese pistache	1	19	35	Large tree routine prune	Good	Pine Street	273
335	*Quercus coccinea*	Scarlet oak	1	19	35	Large tree routine prune	Fair	Sacramento Street	NA
336	*Pistacia chinensis*	Chinese pistache	1	18	30	Large tree routine prune	Good	Pine Street	273
337	*Pistacia chinensis*	Chinese pistache	1	18	40	Large tree routine prune	Good	Pine Street	273
338	*Pistacia chinensis*	Chinese pistache	1	18	40	Large tree routine prune	Good	Pine Street	273
339	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Good	Pine Street	273
340	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Placer Street	NA
341	*Liquidambar styraciflua*	American sweetgum	1	9	30	Large tree routine prune	Fair	Placer Street	NA
342	*Liquidambar styraciflua*	American sweetgum	1	13	40	Large tree routine prune	Poor	Placer Street	NA
343	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Placer Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
344	*Fraxinus velutina 'Modesto'*	Modesto ash	2	28	30	Large tree routine prune	Fair	Sacramento Street	NA
345	*Quercus coccinea*	Scarlet oak	1	16	35	Large tree routine prune	Good	Sacramento Street	NA
346	*Morus alba*	White mulberry	3	15	15	Small tree routine prune	Good	Sacramento Street	NA
347	*Nerium oleander*	Oleander	6	5	10	Small tree routine prune	Good	Sacramento Street	NA
348	*Juglans hinsii*	Northern California black walnut	1	14	15	Large tree routine prune	Poor	Sacramento Street	NA
349	*Quercus coccinea*	Scarlet oak	1	19	45	Large tree routine prune	Good	Sacramento Street	NA
350	*Quercus coccinea*	Scarlet oak	1	23	55	Large tree routine prune	Good	Sacramento Street	NA
351	*Quercus coccinea*	Scarlet oak	1	17	35	Large tree routine prune	Good	Sacramento Street	NA
352	*Quercus coccinea*	Scarlet oak	1	18	35	Large tree routine prune	Good	Sacramento Street	NA
353	*Quercus rubra*	Red oak	1	12	30	Large tree routine prune	Good	Sacramento Street	NA
354	*Quercus rubra*	Red oak	1	12	30	Large tree routine prune	Good	Market Street	NA
355	*Pyrus calleryana*	Callery pear	1	5	20	Large tree routine prune	Fair	Market Street	NA
356	*Pyrus calleryana*	Callery pear	2	9	20	Large tree routine prune	Fair	Market Street	NA
357	*Quercus rubra*	Red oak	1	15	35	Large tree routine prune	Good	Market Street	NA
358	*Pyrus calleryana*	Callery pear	3	12	20	Large tree routine prune	Fair	Market Street	NA
359	*Quercus rubra*	Red oak	1	13	35	Large tree routine prune	Good	Market Street	NA
360	*Pyrus calleryana*	Callery pear	1	3	10	Large tree routine prune	Poor	Market Street	NA
361	*Pyrus calleryana*	Callery pear	2	7	15	Large tree routine prune	Poor	Market Street	NA
362	*Quercus rubra*	Red oak	1	12	25	Large tree routine prune	Poor	Market Street	NA
363	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Placer Street	NA
364	*Liquidambar styraciflua*	American sweetgum	1	8	20	Large tree routine prune	Poor	Placer Street	NA
365	*Liquidambar styraciflua*	American sweetgum	1	11	30	Large tree routine prune	Good	Placer Street	NA
366	*Liquidambar styraciflua*	American sweetgum	1	17	40	Large tree routine prune	Good	Placer Street	NA
367	*Liquidambar styraciflua*	American sweetgum	1	13	40	Large tree routine prune	Good	Placer Street	NA
368	*Liquidambar styraciflua*	American sweetgum	1	9	35	Large tree routine prune	Fair	Placer Street	NA
369	*Liquidambar styraciflua*	American sweetgum	1	9	25	Priority 1 prune	Poor	Placer Street	NA
370	*Liquidambar styraciflua*	American sweetgum	1	8	30	Large tree routine prune	Fair	Placer Street	NA
371	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Pine Street	273
372	*Liquidambar styraciflua*	American sweetgum	1	13	35	Large tree routine prune	Good	Pine Street	273
373	*Quercus rubra*	Red oak	1	11	25	Large tree routine prune	Fair	Market Street	NA
374	*Pyrus calleryana*	Callery pear	2	8	15	Large tree routine prune	Good	Market Street	NA
375	*Pyrus calleryana*	Callery pear	2	8	15	Large tree routine prune	Good	Market Street	NA
376	*Quercus rubra*	Red oak	1	14	35	Large tree routine prune	Good	Market Street	NA
377	*Pyrus calleryana*	Callery pear	2	10	15	Large tree routine prune	Good	Market Street	NA
378	*Quercus rubra*	Red oak	1	18	35	Large tree routine prune	Good	Market Street	NA
379	*Pyrus calleryana*	Callery pear	2	8	15	Large tree routine prune	Fair	Market Street	NA
380	*Pyrus calleryana*	Callery pear	3	15	20	Large tree routine prune	Fair	Market Street	NA
381	*Quercus rubra*	Red oak	1	13	35	Large tree routine prune	Good	Market Street	NA
382	*Quercus rubra*	Red oak	1	9	20	Large tree routine prune	Poor	Sacramento Street	NA
383	*Liquidambar styraciflua*	American sweetgum	1	17	45	Large tree routine prune	Good	Sacramento Street	NA
384	*Liquidambar styraciflua*	American sweetgum	1	16	50	Large tree routine prune	Good	Sacramento Street	NA
385	*Pyrus calleryana*	Callery pear	6	8	15	Large tree routine prune	Good	Sacramento Street	NA
386	*Pyrus calleryana*	Callery pear	6	8	15	Large tree routine prune	Good	Sacramento Street	NA
387	*Pyrus calleryana*	Callery pear	1	7	25	Large tree routine prune	Good	California Street	273
388	*Pyrus calleryana*	Callery pear	1	7	25	Large tree routine prune	Good	California Street	273
389	*Pyrus calleryana*	Callery pear	1	6	25	Large tree routine prune	Good	California Street	273
390	*Pyrus calleryana*	Callery pear	1	6	25	Large tree routine prune	Good	California Street	273
391	*Pyrus calleryana*	Callery pear	1	6	25	Large tree routine prune	Good	California Street	273
392	*Liriodendron tulipifera*	Tulip tree	1	18	40	Large tree routine prune	Poor	California Street	273

Tree Information Matrix

Tree Number	Scientific Name	Common Name	Quantity of Stems	Cumulative Diameter at Breast Height (in.)	Height (ft.)	Maintenance Need	General Condition	Street	Cal Trans ROW
393	*Lagerstroemia indica*	Crape myrtle	1	2	8	Small tree routine prune	Fair	California Street	273
394	*Liriodendron tulipifera*	Tulip tree	1	13	25	Large tree routine prune	Poor	California Street	273
395	*Liriodendron tulipifera*	Tulip tree	1	12	20	Large tree routine prune	Poor	California Street	273
396	*Liquidambar styraciflua*	American sweetgum	1	20	50	Large tree routine prune	Good	Sacramento Street	NA
397	*Lagerstroemia indica*	Crape myrtle	3	12	15	Small tree routine prune	Good	Sacramento Street	NA
398	*Prunus spp.*	Varies	3	15	20	Large tree routine prune	Good	Sacramento Street	NA
399	*Platanus acerifolia*	London planetree	1	16	30	Large tree routine prune	Fair	California Street	273
400	*Platanus acerifolia*	London planetree	1	21	40	Large tree routine prune	Fair	California Street	273
401	*Platanus acerifolia*	London planetree	1	14	30	Large tree routine prune	Fair	California Street	273
402	*Platanus acerifolia*	London planetree	1	15	30	Large tree routine prune	Fair	California Street	273
403	*Platanus acerifolia*	London planetree	1	14	35	Large tree routine prune	Fair	South Street	NA
404	*Liriodendron tulipifera*	Tulip tree	1	11	35	Large tree routine prune	Fair	California Street	273
405	*Zelkova serrata*	Sawleaf zelkova	1	17	30	Large tree routine prune	Good	Sacramento Street	NA
406	*Liquidambar styraciflua*	American sweetgum	1	16	35	Large tree routine prune	Good	Sacramento Street	NA
407	*Quercus rubra*	Red oak	1	14	35	Large tree routine prune	Good	Sacramento Street	NA
408	*Quercus rubra*	Red oak	1	15	35	Large tree routine prune	Good	Market Street	NA
409	*Cinnamomum camphora*	Camphor tree	1	14	20	Large tree routine prune	Good	South Street	NA
410	*Pistacia chinensis*	Chinese pistache	1	5	10	Small tree routine prune	Poor	South Street	NA
411	*Cinnamomum camphora*	Camphor tree	1	16	30	Large tree routine prune	Fair	South Street	NA
412	*Pistacia chinensis*	Chinese pistache	1	17	30	Large tree routine prune	Fair	South Street	NA
413	*Pistacia chinensis*	Chinese pistache	1	17	30	Large tree routine prune	Fair	South Street	NA
414	*Pistacia chinensis*	Chinese pistache	1	21	55	Large tree routine prune	Good	South Street	NA
415	*Pistacia chinensis*	Chinese pistache	1	21	55	Large tree routine prune	Good	South Street	NA
416	*Pistacia chinensis*	Chinese pistache	1	21	55	Large tree routine prune	Good	South Street	NA
417	*Cinnamomum camphora*	Camphor tree	1	17	30	Large tree routine prune	Fair	Market Street	NA
418	*Cinnamomum camphora*	Camphor tree	1	15	25	Large tree routine prune	Fair	Market Street	NA
419	*Cinnamomum camphora*	Camphor tree	1	15	25	Large tree routine prune	Fair	Market Street	NA
420	*Platanus acerifolia*	London planetree	1	12	25	Large tree routine prune	Fair	Oregon Street	NA
421	*Liriodendron tulipifera*	Tulip tree	1	2	10	Training prune	Good	Oregon Street	NA
422	*Liriodendron tulipifera*	Tulip tree	1	2	10	Training prune	Good	Oregon Street	NA
423	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Oregon Street	NA
424	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Oregon Street	NA
425	*Pistacia chinensis*	Chinese pistache	1	30	45	Large tree routine prune	Good	Court Street	NA
426	*Fraxinus velutina 'Modesto'*	Modesto ash	1	13	20	Priority 2 removal	Critical	Court Street	NA
427	*Juglans regia*	English walnut	1	14	25	Large tree routine prune	Poor	Court Street	NA
428	*Platanus acerifolia*	London planetree	1	13	25	Large tree routine prune	Fair	Tehama Street	NA
429	*Platanus acerifolia*	London planetree	1	25	55	Large tree routine prune	Good	Tehama Street	NA
430	*Platanus acerifolia*	London planetree	1	25	55	Large tree routine prune	Good	Tehama Street	NA
431	*Platanus acerifolia*	London planetree	1	25	55	Large tree routine prune	Good	Tehama Street	NA
432	*Platanus acerifolia*	London planetree	1	20	40	Large tree routine prune	Good	Tehama Street	NA
433	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
434	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
435	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
436	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
437	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
438	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
439	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Tehama Street	NA
440	*Platanus acerifolia*	London planetree	1	20	40	Large tree routine prune	Fair	Oregon Street	NA
441	*Platanus acerifolia*	London planetree	1	20	40	Large tree routine prune	Fair	Oregon Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
442	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Oregon Street	NA
443	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Oregon Street	NA
444	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Oregon Street	NA
445	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Oregon Street	NA
446	*Platanus acerifolia*	London planetree	1	20	40	Large tree routine prune	Fair	Oregon Street	NA
447	*Platanus acerifolia*	London planetree	1	20	40	Large tree routine prune	Fair	Oregon Street	NA
448	*Platanus acerifolia*	London planetree	1	20	40	Large tree routine prune	Fair	Oregon Street	NA
449	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Oregon Street	NA
450	*Platanus acerifolia*	London planetree	1	16	35	Large tree routine prune	Fair	Oregon Street	NA
451	*Fraxinus velutina 'Modesto'*	Modesto ash	1	13	20	Priority 2 prune	Poor	Shasta Street	NA
452	*Fraxinus velutina 'Modesto'*	Modesto ash	1	15	35	Priority 2 prune	Poor	Shasta Street	NA
453	*Fraxinus velutina 'Modesto'*	Modesto ash	1	18	30	Large tree routine prune	Fair	Shasta Street	NA
454	*Fraxinus velutina 'Modesto'*	Modesto ash	1	12	30	Large tree routine prune	Poor	Tehama Street	NA
455	*Liquidambar styraciflua*	American sweetgum	1	5	15	Large tree routine prune	Fair	Tehama Street	NA
456	*Liquidambar styraciflua*	American sweetgum	1	5	15	Large tree routine prune	Fair	Tehama Street	NA
457	*Liquidambar styraciflua*	American sweetgum	1	5	15	Large tree routine prune	Fair	Tehama Street	NA
458	*Platanus acerifolia*	London planetree	1	24	30	Large tree routine prune	Fair	Tehama Street	NA
459	*Washingtonia filifera*	California fan palm	1	25	25	Large tree routine prune	Fair	Tehama Street	NA
460	*Liquidambar styraciflua*	American sweetgum	1	10	25	Large tree routine prune	Fair	Tehama Street	NA
461	*Liquidambar styraciflua*	American sweetgum	1	8	20	Large tree routine prune	Fair	Tehama Street	NA
462	*Liquidambar styraciflua*	American sweetgum	1	3	15	Small tree routine prune	Fair	Tehama Street	NA
463	*Liquidambar styraciflua*	American sweetgum	1	20	55	Large tree routine prune	Fair	Tehama Street	NA
464	*Prunus cerasifera*	Purple leaf plum	1	8	15	Small tree routine prune	Poor	Oregon Street	NA
465	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
466	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
467	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
468	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
469	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
470	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
471	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
472	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
473	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Oregon Street	NA
474	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Good	Tehama Street	NA
475	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Tehama Street	NA
476	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Tehama Street	NA
477	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Tehama Street	NA
478	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Tehama Street	NA
479	*Liquidambar styraciflua*	American sweetgum	1	12	35	Large tree routine prune	Good	Tehama Street	NA
480	*Celtis sinensis*	Chinese hackberry	1	8	15	Large tree routine prune	Good	Tehama Street	NA
481	*Liquidambar styraciflua*	American sweetgum	1	12	20	Large tree routine prune	Good	Tehama Street	NA
482	*Fraxinus velutina 'Modesto'*	Modesto ash	1	12	30	Large tree routine prune	Good	Tehama Street	NA
483	*Pistacia chinensis*	Chinese pistache	1	17	30	Large tree routine prune	Good	Tehama Street	NA
484	*Pistacia chinensis*	Chinese pistache	1	10	20	Large tree routine prune	Good	Court Street	NA
485	*Pistacia chinensis*	Chinese pistache	1	10	20	Large tree routine prune	Good	Court Street	NA
486	*Pistacia chinensis*	Chinese pistache	1	10	20	Large tree routine prune	Good	Court Street	NA
487	*Pistacia chinensis*	Chinese pistache	1	10	20	Large tree routine prune	Good	Court Street	NA
488	*Lagerstroemia indica*	Crape myrtle	1	2	10	Small tree routine prune	Good	Court Street	NA
489	*Lagerstroemia indica*	Crape myrtle	1	2	10	Small tree routine prune	Good	Court Street	NA
490	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Court Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
491	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Court Street	NA
492	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Court Street	NA
493	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Court Street	NA
494	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Court Street	NA
495	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Butte Street	NA
496	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Butte Street	NA
497	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Butte Street	NA
498	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Butte Street	NA
499	*Platanus acerifolia*	London planetree	1	15	25	Large tree routine prune	Fair	Butte Street	NA
500	*Liquidambar styraciflua*	American sweetgum	1	14	30	Large tree routine prune	Good	Butte Street	NA
501	*Liquidambar styraciflua*	American sweetgum	1	14	30	Large tree routine prune	Good	Butte Street	NA
502	*Liquidambar styraciflua*	American sweetgum	1	14	30	Large tree routine prune	Good	Butte Street	NA
503	*Liquidambar styraciflua*	American sweetgum	1	14	30	Large tree routine prune	Good	Butte Street	NA
504	*Liriodendron tulipifera*	Tulip tree	1	14	20	Large tree routine prune	Fair	Oregon Street	NA
505	*Liriodendron tulipifera*	Tulip tree	1	14	20	Large tree routine prune	Fair	Oregon Street	NA
506	*Liriodendron tulipifera*	Tulip tree	1	14	20	Large tree routine prune	Fair	Oregon Street	NA
507	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Oregon Street	NA
508	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Yuba Street	NA
509	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
510	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
511	*Quercus rubra*	Red oak	1	9	15	Large tree routine prune	Good	Yuba Street	NA
512	*Quercus rubra*	Red oak	1	9	15	Large tree routine prune	Good	Yuba Street	NA
513	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
514	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
515	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Yuba Street	NA
516	*Fraxinus velutina 'Modesto'*	Modesto ash	1	21	25	Large tree routine prune	Fair	Court Street	NA
517	*Fraxinus velutina 'Modesto'*	Modesto ash	1	18	25	Large tree routine prune	Fair	Court Street	NA
518	*Lagerstroemia indica*	Crape myrtle	2	11	15	Large tree routine prune	Good	Butte Street	NA
519	*Platanus acerifolia*	London planetree	1	19	20	Large tree routine prune	Fair	Court Street	NA
520	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Placer Street	NA
521	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Placer Street	NA
522	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Placer Street	NA
523	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Placer Street	NA
524	*Ginkgo biloba*	Maidenhair tree	1	10	25	Large tree routine prune	Good	Oregon Street	NA
525	*Ginkgo biloba*	Maidenhair tree	1	16	25	Large tree routine prune	Good	Oregon Street	NA
526	*Ginkgo biloba*	Maidenhair tree	1	16	25	Large tree routine prune	Good	Oregon Street	NA
527	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Yuba Street	NA
528	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Oregon Street	NA
529	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
530	*Quercus rubra*	Red oak	1	9	15	Large tree routine prune	Good	Yuba Street	NA
531	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
532	*Quercus rubra*	Red oak	1	9	15	Large tree routine prune	Good	Yuba Street	NA
533	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
534	*Pyrus calleryana*	Callery pear	1	8	20	Large tree routine prune	Good	Yuba Street	NA
535	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Yuba Street	NA
536	*Acer platanoides*	Norway maple	1	9	15	Large tree routine prune	Good	Oregon Street	NA
537	*Cinnamomum camphora*	Camphor tree	1	21	35	Large tree routine prune	Fair	Oregon Street	NA
538	*Cinnamomum camphora*	Camphor tree	5	44	25	Large tree routine prune	Fair	Oregon Street	NA
539	*Cinnamomum camphora*	Camphor tree	1	14	25	Large tree routine prune	Fair	Oregon Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
540	*Cinnamomum camphora*	Camphor tree	1	18	30	Large tree routine prune	Fair	Oregon Street	NA
541	*Quercus coccinea*	Scarlet oak	1	14	25	Large tree routine prune	Good	Placer Street	NA
542	*Morus alba*	White mulberry	1	20	25	Large tree routine prune	Poor	Railroad Avenue	NA
543	*Catalpa speciosa*	Northern catalpa	1	19	20	Large tree routine prune	Poor	Sacramento Street	NA
544	*Platanus acerifolia*	London planetree	1	19	25	Large tree routine prune	Fair	Oregon Street	NA
545	*Washingtonia filifera*	California fan palm	1	7	5	Small tree routine prune	Fair	Oregon Street	NA
546	*Platanus acerifolia*	London planetree	1	31	60	Large tree routine prune	Good	Court Street	NA
547	*Platanus acerifolia*	London planetree	1	20	55	Large tree routine prune	Fair	Court Street	NA
548	*Platanus acerifolia*	London planetree	1	17	25	Priority 3 removal	Poor	Court Street	NA
549	*Pistacia chinensis*	Chinese pistache	1	6	10	Small tree routine prune	Poor	Court Street	NA
550	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
551	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
552	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
553	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
554	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
555	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
556	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
557	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Sacramento Street	NA
558	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Court Street	NA
559	*Lagerstroemia indica*	Crape myrtle	4	9	10	Small tree routine prune	Good	Court Street	NA
560	*Platanus acerifolia*	London planetree	1	20	35	Large tree routine prune	Good	South Street	NA
561	*Pyrus calleryana*	Callery pear	1	6	15	Large tree routine prune	Good	South Street	NA
562	*Pyrus calleryana*	Callery pear	1	6	15	Large tree routine prune	Good	South Street	NA
563	*Liquidambar styraciflua*	American sweetgum	1	12	30	Large tree routine prune	Fair	South Street	NA
564	*Liquidambar styraciflua*	American sweetgum	1	12	30	Large tree routine prune	Fair	South Street	NA
565	*Quercus coccinea*	Scarlet oak	1	11	25	Large tree routine prune	Fair	South Street	NA
566	*Quercus coccinea*	Scarlet oak	1	11	25	Large tree routine prune	Fair	South Street	NA
567	*Quercus coccinea*	Scarlet oak	1	11	25	Large tree routine prune	Fair	South Street	NA
568	*Pyrus calleryana*	Callery pear	1	20	30	Large tree routine prune	Fair	South Street	NA
569	*Lagerstroemia indica*	Crape myrtle	1	5	15	Small tree routine prune	Good	South Street	NA
570	*Prunus cerasifera*	Purple leaf plum	3	15	15	Large tree routine prune	Good	Court Street	NA
571	*Prunus cerasifera*	Purple leaf plum	3	15	15	Large tree routine prune	Good	Court Street	NA
572	*Prunus cerasifera*	Purple leaf plum	3	15	15	Large tree routine prune	Good	Court Street	NA
573	*Zelkova serrata*	Sawleaf zelkova	1	12	25	Large tree routine prune	Fair	Court Street	NA
574	*Zelkova serrata*	Sawleaf zelkova	1	12	25	Large tree routine prune	Fair	Court Street	NA
575	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Court Street	NA
576	*Platanus acerifolia*	London planetree	1	21	50	Large tree routine prune	Fair	Court Street	NA
577	*Platanus acerifolia*	London planetree	1	21	50	Large tree routine prune	Fair	Court Street	NA
578	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Court Street	NA
579	*Liquidambar styraciflua*	American sweetgum	1	6	25	Large tree routine prune	Good	Court Street	NA
580	*Cinnamomum camphora*	Camphor tree	1	14	30	Large tree routine prune	Poor	Court Street	NA
581	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
582	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
583	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
584	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
585	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
586	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
587	*Lagerstroemia indica*	Crape myrtle	1	4	10	Small tree routine prune	Good	Court Street	NA
588	*Platanus acerifolia*	London planetree	1	10	25	Large tree routine prune	Good	Court Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
589	*Fraxinus velutina 'Modesto'*	Modesto ash	1	5	20	Large tree routine prune	Fair	Court Street	NA
590	*Ginkgo biloba*	Maidenhair tree	1	2	10	Training prune	Good	Court Street	NA
591	*Ginkgo biloba*	Maidenhair tree	1	3	15	Small tree routine prune	Good	Court Street	NA
592	*Platanus acerifolia*	London planetree	1	6	20	Large tree routine prune	Good	Court Street	NA
593	*Ginkgo biloba*	Maidenhair tree	1	2	10	Training prune	Good	Court Street	NA
594	*Liquidambar styraciflua*	American sweetgum	1	12	30	Large tree routine prune	Fair	Court Street	NA
595	*Fraxinus velutina 'Modesto'*	Modesto ash	1	18	25	Large tree routine prune	Fair	Court Street	NA
596	*Fraxinus velutina 'Modesto'*	Modesto ash	1	20	25	Large tree routine prune	Poor	Court Street	NA
597	*Fraxinus velutina 'Modesto'*	Modesto ash	1	18	35	Large tree routine prune	Poor	Court Street	NA
598	*Liriodendron tulipifera*	Tulip tree	1	20	40	Priority 3 removal	Poor	Lincoln Street	NA
599	*Pistacia chinensis*	Chinese pistache	1	20	40	Large tree routine prune	Fair	Pine Street	273
600	*Robinia psuedoacacia*	Black locust	1	12	30	Large tree routine prune	Fair	Pine Street	273
601	*Quercus coccinea*	Scarlet oak	1	12	30	Large tree routine prune	Fair	Pine Street	273
602	*Quercus coccinea*	Scarlet oak	1	25	50	Large tree routine prune	Good	Pine Street	273
603	*Pistacia chinensis*	Chinese pistache	1	24	45	Large tree routine prune	Good	Pine Street	273
604	*Pistacia chinensis*	Chinese pistache	1	22	45	Large tree routine prune	Good	Pine Street	273
605	*Pistacia chinensis*	Chinese pistache	1	12	25	Large tree routine prune	Fair	Pine Street	273
606	*Pistacia chinensis*	Chinese pistache	1	15	30	Large tree routine prune	Fair	Pine Street	273
607	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Fair	Pine Street	273
608	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Fair	Pine Street	273
609	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Fair	Pine Street	273
610	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Fair	Pine Street	273
611	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Fair	Pine Street	273
612	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Fair	Pine Street	273
613	*Platanus acerifolia*	London planetree	1	22	50	Large tree routine prune	Fair	Pine Street	273
614	*Pistacia chinensis*	Chinese pistache	1	21	45	Large tree routine prune	Good	Pine Street	273
615	*Pistacia chinensis*	Chinese pistache	1	16	35	Large tree routine prune	Good	Pine Street	273
616	*Pistacia chinensis*	Chinese pistache	1	11	25	Large tree routine prune	Fair	South Street	NA
617	*Pistacia chinensis*	Chinese pistache	1	18	30	Large tree routine prune	Fair	South Street	NA
618	*Pistacia chinensis*	Chinese pistache	1	10	20	Large tree routine prune	Fair	South Street	NA
619	*Cedrus deodara*	Deodar cedar	1	8	20	Large tree routine prune	Fair	South Street	NA
620	*Liquidambar styraciflua*	American sweetgum	1	8	20	Large tree routine prune	Fair	East Street	NA
621	*Zelkova serrata*	Sawleaf zelkova	1	20	25	Large tree routine prune	Fair	East Street	NA
622	*Fraxinus velutina 'Modesto'*	Modesto ash	1	18	30	Large tree routine prune	Fair	East Street	NA
623	*Fraxinus oxycarpa*	Raywood ash	1	19	35	Large tree routine prune	Fair	East Street	NA
624	*Fraxinus oxycarpa*	Raywood ash	1	18	30	Large tree routine prune	Fair	East Street	NA
625	*Liriodendron tulipifera*	Tulip tree	1	14	25	Large tree routine prune	Fair	East Street	NA
626	*Liriodendron tulipifera*	Tulip tree	1	14	25	Large tree routine prune	Fair	East Street	NA
627	*Liriodendron tulipifera*	Tulip tree	1	12	25	Large tree routine prune	Fair	East Street	NA
628	*Liquidambar styraciflua*	American sweetgum	1	10	20	Large tree routine prune	Fair	East Street	NA
629	*Liquidambar styraciflua*	American sweetgum	1	10	20	Large tree routine prune	Fair	East Street	NA
630	*Liquidambar styraciflua*	American sweetgum	1	10	20	Large tree routine prune	Fair	East Street	NA
631	*Liquidambar styraciflua*	American sweetgum	1	10	20	Large tree routine prune	Fair	East Street	NA
632	*Lagerstroemia indica*	Crape myrtle	1	3	10	Small tree routine prune	Good	East Street	NA
633	*Lagerstroemia indica*	Crape myrtle	1	3	10	Small tree routine prune	Good	East Street	NA
634	*Lagerstroemia indica*	Crape myrtle	1	3	10	Small tree routine prune	Good	East Street	NA
635	*Liriodendron tulipifera*	Tulip tree	1	12	25	Large tree routine prune	Poor	East Street	NA
636	*Liriodendron tulipifera*	Tulip tree	1	12	25	Large tree routine prune	Poor	East Street	NA
637	*Liriodendron tulipifera*	Tulip tree	1	18	30	Large tree routine prune	Fair	East Street	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
638	*Liquidambar styraciflua*	American sweetgum	1	18	30	Large tree routine prune	Fair	East Street	NA
639	*Platanus acerifolia*	London planetree	1	20	30	Large tree routine prune	Fair	East Street	NA
640	*Platanus acerifolia*	London planetree	1	20	30	Large tree routine prune	Fair	East Street	NA
641	*Platanus acerifolia*	London planetree	1	20	30	Large tree routine prune	Fair	East Street	NA
642	*Platanus acerifolia*	London planetree	1	20	30	Large tree routine prune	Fair	East Street	NA
643	*Fraxinus oxycarpa*	Raywood ash	1	11	25	Large tree routine prune	Fair	East Street	NA
644	*Fraxinus oxycarpa*	Raywood ash	1	11	25	Large tree routine prune	Fair	East Street	NA
645	*Fraxinus oxycarpa*	Raywood ash	1	11	25	Large tree routine prune	Fair	East Street	NA
646	*Lagerstroemia indica*	Crape myrtle	1	3	10	Small tree routine prune	Very Good	East Street	NA
647	*Juglans regia*	English walnut	1	23	25	Large tree routine prune	Poor	East Street	NA
648	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Fair	East Street	NA
649	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Fair	East Street	NA
650	*Liquidambar styraciflua*	American sweetgum	1	18	50	Large tree routine prune	Good	East Street	NA
651	*Liquidambar styraciflua*	American sweetgum	1	18	50	Large tree routine prune	Good	East Street	NA
652	*Robinia psuedoacacia*	Black locust	1	26	30	Large tree routine prune	Fair	Trinity Street	NA
653	*Gleditsia tricanthos*	Honey locust	1	16	30	Priority 3 removal	Poor	Trinity Street	NA
654	*Liriodendron tulipifera*	Tulip tree	1	24	40	Large tree routine prune	Poor	Trinity Street	NA
655	*Platanus acerifolia*	London planetree	1	20	30	Large tree routine prune	Fair	Trinity Street	NA
656	*Platanus acerifolia*	London planetree	1	20	30	Large tree routine prune	Fair	Trinity Street	NA
657	*Quercus coccinea*	Scarlet oak	1	18	35	Large tree routine prune	Fair	Trinity Street	NA
658	*Quercus coccinea*	Scarlet oak	1	21	45	Large tree routine prune	Good	Trinity Street	NA
659	*Lagerstroemia indica*	Crape myrtle	1	2	10	Small tree routine prune	Good	Trinity Street	NA
660	*Lagerstroemia indica*	Crape myrtle	1	2	10	Small tree routine prune	Good	Trinity Street	NA
661	*Lagerstroemia indica*	Crape myrtle	1	2	10	Small tree routine prune	Good	Trinity Street	NA
662	*Platanus acerifolia*	London planetree	1	24	25	Large tree routine prune	Fair	Trinity Street	NA
663	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Trinity Street	NA
664	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Trinity Street	NA
665	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	Trinity Street	NA
666	*Platanus acerifolia*	London planetree	1	20	25	Large tree routine prune	Fair	California Street	NA
667	*Fraxinus oxycarpa*	Raywood ash	1	20	20	Large tree routine prune	Poor	Trinity Street	NA
668	*Fraxinus oxycarpa*	Raywood ash	1	17	45	Large tree routine prune	Good	Carnegie Park	NA
669	*Ligustrum spp.*	Glossy privet	1	21	35	Large tree routine prune	Poor	Carnegie Park	NA
670	*Fraxinus oxycarpa*	Raywood ash	1	18	45	Large tree routine prune	Good	Carnegie Park	NA
671	*Ligustrum spp.*	Glossy privet	1	21	35	Large tree routine prune	Fair	Carnegie Park	NA
672	*Ligustrum spp.*	Glossy privet	1	16	25	Large tree routine prune	Fair	Carnegie Park	NA
673	*Ligustrum spp.*	Glossy privet	1	18	25	Large tree routine prune	Fair	Carnegie Park	NA
674	*Pistacia chinensis*	Chinese pistache	1	16	25	Large tree routine prune	Good	Carnegie Park	NA
675	*Pistacia chinensis*	Chinese pistache	1	13	25	Large tree routine prune	Good	Carnegie Park	NA
676	*Pistacia chinensis*	Chinese pistache	1	10	20	Large tree routine prune	Good	Carnegie Park	NA
677	*Fraxinus oxycarpa*	Raywood ash	1	13	35	Large tree routine prune	Fair	Carnegie Park	NA
678	*Pyrus calleryana*	Callery pear	4	14	20	Large tree routine prune	Good	Carnegie Park	NA
679	*Pyrus calleryana*	Callery pear	4	14	20	Large tree routine prune	Good	Carnegie Park	NA
680	*Pistacia chinensis*	Chinese pistache	1	12	25	Large tree routine prune	Good	Carnegie Park	NA
681	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA
682	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA
683	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA
684	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA
685	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA
686	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA

Tree Information Matrix									
Tree Number	**Scientific Name**	**Common Name**	**Quantity of Stems**	**Cumulative Diameter at Breast Height (in.)**	**Height (ft.)**	**Maintenance Need**	**General Condition**	**Street**	**Cal Trans ROW**
687	*Washingtonia filifera*	California fan palm	1	12	30	Large tree routine prune	Fair	Carnegie Park	NA
688	*Washingtonia filifera*	California fan palm	1	28	65	Large tree routine prune	Fair	Carnegie Park	NA
689	*Washingtonia filifera*	California fan palm	1	28	60	Large tree routine prune	Fair	Carnegie Park	NA
690	*Washingtonia filifera*	California fan palm	1	16	50	Large tree routine prune	Fair	Carnegie Park	NA
691	*Washingtonia filifera*	California fan palm	1	16	40	Large tree routine prune	Fair	Carnegie Park	NA
692	*Washingtonia filifera*	California fan palm	1	18	55	Large tree routine prune	Fair	Carnegie Park	NA
693	*Ficus spp.*	Indian laurel fig	2	18	15	Large tree routine prune	Fair	Carnegie Park	NA
694	*Malus spp.*	Crabapple	1	8	10	Small tree routine prune	Fair	Carnegie Park	NA
695	*Liquidambar styraciflua*	American sweetgum	1	11	25	Large tree routine prune	Fair	South Street	NA
696	*Pistacia chinensis*	Chinese pistache	1	7	15	Large tree routine prune	Good	South Street	NA
697	*Liquidambar styraciflua*	American sweetgum	1	12	25	Large tree routine prune	Fair	California Street	273
698	*Liquidambar styraciflua*	American sweetgum	1	10	25	Large tree routine prune	Fair	California Street	273
699	*Liquidambar styraciflua*	American sweetgum	1	10	25	Large tree routine prune	Fair	California Street	273
700	*Liquidambar styraciflua*	American sweetgum	1	10	25	Large tree routine prune	Fair	California Street	273
701	*Liriodendron tulipifera*	Tulip tree	1	18	30	Large tree routine prune	Good	Market Street	273
702	*Liriodendron tulipifera*	Tulip tree	1	18	30	Large tree routine prune	Good	Market Street	273
703	*Pistacia chinensis*	Chinese pistache	1	12	30	Large tree routine prune	Good	Market Street	273
704	*Pistacia chinensis*	Chinese pistache	1	12	30	Large tree routine prune	Good	Market Street	273
705	*Pistacia chinensis*	Chinese pistache	1	12	30	Large tree routine prune	Good	Market Street	273
706	*Pistacia chinensis*	Chinese pistache	1	12	30	Large tree routine prune	Good	Market Street	273
707	*Liriodendron tulipifera*	Tulip tree	1	14	35	Large tree routine prune	Fair	Market Street	273
708	*Liriodendron tulipifera*	Tulip tree	1	12	25	Large tree routine prune	Fair	Market Street	273
709	*Pistacia chinensis*	Chinese pistache	1	23	35	Large tree routine prune	Good	Lincoln Street	NA
710	*Pistacia chinensis*	Chinese pistache	1	14	25	Large tree routine prune	Fair	Lincoln Street	NA
711	*Pistacia chinensis*	Chinese pistache	1	18	35	Large tree routine prune	Good	Lincoln Street	NA

APPENDIX D

i-Tree Individual Tree Characteristic Values

Individual Tree Characteristics in Redding Downtown Core Street Trees

Series: Street Trees, Time Period: 2017

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
92	Tulip tree	8.0	15.1	122.71	Good	401.28	4.85	3.27	132.56	22.88	2,299.0	YES	NO
116	Tulip tree	14.0	35.1	962.29	Good	4,185.22	50.53	4.35	506.53	48.99	5,039.0	YES	NO
119	London plane	20.0	49.9	1,590.91	Good	4,255.19	40.04	2.68	1,465.79	99.21	9,275.0	YES	NO
124	Tulip tree	18.0	49.9	1,590.91	Good	4,335.49	52.34	2.73	924.82	69.14	7,697.0	YES	NO
125	Sweetgum	22.0	60.0	2,375.60	Good	7,322.37	68.85	3.08	1,022.70	52.27	11,019.0	YES	NO
144	Southern magnolia	5.0	15.1	122.71	Good	255.43	7.05	2.08	52.12	14.04	1,547.0	YES	NO
225	apple spp	4.0	9.8	50.59	Critical	118.51	2.09	2.36	28.26	2.25	506.0	YES	NO
255	Scarlet oak	17.0	49.9	1,590.91	Good	2,713.04	40.50	1.71	1,095.72	90.68	8,594.0	YES	NO
258	Scarlet oak	16.0	55.1	1,963.34	Good	6,491.28	96.87	3.31	941.81	82.94	7,713.0	YES	NO
261	Sweetgum	11.0	35.1	962.29	Good	3,502.25	32.94	3.64	190.15	19.31	3,482.0	YES	NO
269	Northern red oak	14.0	29.9	707.19	Good	2,532.86	41.34	3.58	674.66	66.20	5,576.0	YES	NO
294	Scarlet oak	27.0	40.0	962.29	Fair	1,950.53	29.10	2.03	3,478.37	179.63	17,556.0	YES	NO
296	Chinese pistache	28.0	49.9	1,771.74	Good	6,251.79	97.75	3.53	3,280.61	158.84	14,930.0	YES	NO
393	Caucasian ash	8.0	20.0	240.04	Fair	609.13	8.88	2.53	132.89	21.67	1,984.0	YES	NO
428	Common crapemyrtle	3.0	9.8	19.38	Good	61.78	0.95	3.15	14.24	7.08	455.0	YES	NO
444	Sweetgum	17.0	44.9	1,104.38	Good	3,939.05	37.04	3.57	506.86	33.82	6,970.0	YES	NO
455	Scarlet oak	15.0	44.9	1,104.38	Good	2,522.52	37.65	2.28	801.62	75.42	6,886.0	YES	NO
478	London plane	15.0	24.9	397.19	Fair	1,222.03	11.49	3.07	704.13	64.37	4,870.0	YES	NO
479	London plane	17.0	35.1	962.29	Fair	4,150.78	39.04	4.31	969.22	77.71	6,016.0	YES	NO
481	Japanese zelkova	18.0	40.0	1,590.91	Good	2,849.85	43.70	1.79	1,121.16	84.68	7,697.0	YES	NO
484	Sweetgum	21.0	65.0	1,590.91	Good	6,912.05	64.99	4.35	1,011.15	53.31	10,126.0	YES	NO
485	Sweetgum	25.0	69.9	1,590.91	Good	6,912.05	64.99	4.35	1,463.12	65.48	13,946.0	YES	NO
486	Scarlet oak	25.0	65.0	1,418.68	Good	4,392.11	65.54	3.1	2,870.24	160.28	17,563.0	YES	NO
487	Sweetgum	19.0	55.1	962.29	Good	4,023.55	37.83	4.18	733.61	43.17	8,465.0	YES	NO
488	Camphor tree	14.0	29.9	314.31	Fair	725.16	10.03	2.31	606.91	58.93	3,880.0	YES	NO
498	Chinese pistache	21.0	55.1	1,963.34	Good	6,573.84	102.78	3.35	1,659.24	106.75	8,843.0	YES	NO
571	Quercus wislizeni	13.0	20.0	240.04	Good	376.95	11.46	1.57	681.12	74.14	4,935.0	YES	YES
572	London plane	12.0	20.0	240.04	Fair	582.11	5.47	2.42	407.30	25.93	3,418.0	YES	NO
573	Quercus ilex	10.0	15.1	122.71	Fair	179.00	3.62	1.46	282.32	40.41	2,938.0	YES	NO
576	Tulip tree	18.0	40.0	962.29	Fair	5,535.34	66.82	5.75	924.82	69.14	6,644.0	YES	NO
577	Quercus suber	22.0	29.9	397.19	Poor	683.94	24.91	1.72	2,071.00	99.89	8,481.0	YES	NO
581	Sweetgum	16.0	40.0	1,256.15	Good	3,403.98	32.01	2.71	411.32	29.43	6,285.0	YES	NO
584	Scarlet oak	19.0	44.9	1,104.38	Good	2,710.78	40.45	2.45	1,446.50	106.84	10,516.0	YES	NO
602	Sweetgum	17.0	44.9	1,104.38	Good	3,771.78	35.47	3.41	506.86	33.82	6,970.0	YES	NO
610	Sweetgum	18.0	55.1	1,963.34	Good	7,406.32	69.64	3.77	667.45	41.20	7,697.0	YES	NO
616	Scarlet oak	23.0	65.0	1,963.34	Good	7,406.32	110.54	3.77	2,330.77	141.67	15,001.0	YES	NO
622	Scarlet oak	19.0	44.9	1,104.38	Good	2,782.26	41.51	2.52	1,446.50	106.84	10,516.0	YES	NO
642	Scarlet oak	20.0	49.9	1,256.15	Good	2,692.16	40.17	2.14	1,644.14	115.24	11,557.0	YES	NO
643	Scarlet oak	19.0	49.9	1,590.91	Good	2,655.03	39.62	1.67	1,446.50	106.84	10,516.0	YES	NO
644	Camphor tree	29.0	65.0	1,771.74	Good	7,368.22	101.96	4.16	3,675.19	169.09	15,942.0	YES	NO
645	Camphor tree	17.0	40.0	962.29	Fair	2,400.89	33.22	2.5	991.18	78.22	5,304.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
647	Sweetgum	9.0	24.9	122.71	Good	448.32	4.21	3.65	99.80	12.68	2,652.0	YES	NO
648	Sweetgum	8.0	24.9	78.58	Good	255.97	2.40	3.26	81.22	11.49	2,299.0	YES	NO
649	London plane	20.0	24.9	707.19	Fair	698.69	6.57	0.99	1,407.59	96.36	8,006.0	YES	NO
650	Scarlet oak	16.0	35.1	962.29	Good	1,694.35	25.29	1.76	941.81	82.94	7,713.0	YES	NO
651	Scarlet oak	26.0	49.9	1,590.91	Fair	1,933.41	28.86	1.22	3,165.55	169.87	16,335.0	YES	NO
653	Scarlet oak	24.0	55.1	3,318.51	Good	7,618.80	113.71	2.3	2,592.09	150.88	16,255.0	YES	NO
654	Sweetgum	16.0	49.9	594.17	Excellent	3,228.42	30.36	5.44	499.88	34.70	6,616.0	YES	NO
658	Sweetgum	14.0	49.9	594.17	Excellent	3,228.42	30.36	5.44	395.82	31.00	5,305.0	YES	NO
659	Sweetgum	16.0	49.9	594.17	Fair	2,780.00	26.15	4.68	499.88	34.70	5,425.0	YES	NO
660	Japanese zelkova	25.0	44.9	1,590.91	Good	3,079.45	47.22	1.94	2,482.80	134.81	13,946.0	YES	NO
661	Japanese zelkova	23.0	40.0	2,375.60	Good	6,557.27	100.57	2.76	2,017.89	119.29	11,953.0	YES	NO
662	Japanese zelkova	11.0	20.0	176.53	Fair	462.20	7.10	2.62	330.47	41.51	3,006.0	YES	NO
663	Scarlet oak	22.0	49.9	1,590.91	Good	5,347.08	79.81	3.36	2,085.90	132.65	13,799.0	YES	NO
664	Scarlet oak	20.0	60.0	1,590.91	Good	4,345.93	64.86	2.73	1,644.14	64.15	11,557.0	YES	NO
665	Scarlet oak	22.0	60.0	2,375.60	Good	7,987.58	119.20	3.36	2,085.90	132.65	13,799.0	YES	NO
666	Scarlet oak	19.0	35.1	1,104.38	Poor	1,874.64	27.98	1.7	1,446.50	80.78	6,863.0	YES	NO
667	Scarlet oak	14.0	29.9	829.90	Fair	1,856.02	27.69	2.24	674.77	68.14	5,275.0	YES	NO
668	Japanese zelkova	21.0	29.9	1,963.34	Good	2,434.69	37.35	1.24	1,596.50	103.84	10,126.0	YES	NO
669	Japanese zelkova	22.0	29.9	1,963.34	Good	2,434.69	37.35	1.24	1,785.83	110.87	11,019.0	YES	NO
670	Sweetgum	13.0	44.9	314.31	Poor	2,629.73	24.74	8.37	317.16	20.33	2,923.0	YES	NO
676	Sweetgum	15.0	44.9	1,104.38	Good	3,939.05	37.04	3.57	407.28	30.34	5,642.0	YES	NO
677	Sweetgum	16.0	44.9	1,104.38	Good	3,939.05	37.04	3.57	455.89	32.08	6,285.0	YES	NO
679	Quercus suber	26.0	49.9	1,963.34	Good	6,491.28	236.36	3.31	3,323.05	173.42	17,790.0	YES	NO
681	Sweetgum	16.0	49.9	1,256.15	Good	3,517.54	33.07	2.8	499.88	34.70	6,285.0	YES	NO
683	Sweetgum	21.0	69.9	1,590.91	Good	7,042.40	66.23	4.43	1,078.81	56.37	10,126.0	YES	NO
690	Scarlet oak	26.0	44.9	1,104.38	Good	2,899.04	43.25	2.62	3,165.55	169.87	18,924.0	YES	NO
692	Scarlet oak	23.0	44.9	1,104.38	Good	3,087.20	46.08	2.8	2,330.77	141.67	15,001.0	YES	NO
695	Scarlet oak	20.0	55.1	1,963.34	Good	6,864.36	102.45	3.5	1,644.14	115.24	11,557.0	YES	NO
696	Scarlet oak	17.0	44.9	1,104.38	Good	3,463.72	51.70	3.14	1,095.72	90.68	8,594.0	YES	NO
697	Caucasian ash	14.0	29.9	707.19	Good	2,682.04	39.11	3.79	490.31	45.06	5,039.0	YES	NO
698	Caucasian ash	18.0	35.1	962.29	Good	2,648.03	38.60	2.75	877.59	62.63	7,697.0	YES	NO
699	London plane	8.0	29.9	707.19	Good	3,890.29	36.60	5.5	158.82	27.38	2,299.0	YES	NO
700	London plane	7.0	29.9	707.19	Good	3,890.29	36.60	5.5	115.74	22.88	1,988.0	YES	NO
701	London plane	9.2	29.9	707.19	Good	3,890.29	36.60	5.5	222.45	33.18	2,735.0	YES	NO
702	Camphor tree	29.0	55.1	1,771.74	Fair	4,822.34	66.73	2.72	3,617.70	93.61	13,760.0	YES	NO
703	Camphor tree	22.7	55.1	1,590.91	Fair	4,499.85	62.28	2.83	2,016.99	66.23	8,751.0	YES	NO
704	Camphor tree	26.0	40.0	962.29	Good	2,358.70	32.65	2.45	2,722.64	79.12	13,013.0	YES	NO
705	Camphor tree	15.0	20.0	314.31	Good	672.53	9.30	2.14	700.56	63.91	5,009.0	YES	NO
706	Camphor tree	30.0	40.0	962.29	Fair	3,071.37	42.51	3.19	3,841.49	173.53	14,664.0	YES	NO
707	Camphor tree	25.0	49.9	1,590.91	Good	2,965.35	41.03	1.86	2,516.18	135.47	12,108.0	YES	NO
709	Scarlet oak	14.0	44.9	1,104.38	Good	1,657.97	24.74	1.5	674.77	37.81	6,112.0	YES	NO
710	Scarlet oak	20.0	49.9	1,590.91	Good	2,401.21	35.85	1.51	1,644.14	115.24	11,557.0	YES	NO
711	Scarlet oak	16.0	40.0	962.29	Fair	2,513.16	37.50	2.61	941.81	82.94	6,658.0	YES	NO
712	Japanese zelkova	15.0	29.9	707.19	Good	1,808.66	27.73	2.56	711.28	64.84	5,642.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
713	Scarlet oak	19.0	60.0	2,375.60	Good	8,305.97	123.97	3.5	1,446.50	106.84	10,516.0	YES	NO
714	Scarlet oak	20.0	60.0	2,375.60	Good	8,305.97	123.97	3.5	1,644.14	115.24	11,557.0	YES	NO
715	Scarlet oak	18.0	49.9	1,590.91	Good	2,245.24	33.51	1.41	1,263.82	98.63	9,529.0	YES	NO
716	Scarlet oak	17.0	35.1	962.29	Good	2,517.03	37.57	2.62	1,095.72	90.68	8,594.0	YES	NO
718	London plane	17.0	44.9	1,104.38	Good	4,803.72	45.19	4.35	986.46	78.71	6,970.0	YES	NO
719	London plane	20.0	49.9	1,590.91	Good	4,807.81	45.24	3.02	1,465.79	99.21	9,275.0	YES	NO
720	London plane	23.0	49.9	1,590.91	Good	4,807.81	45.24	3.02	2,047.26	120.55	11,953.0	YES	NO
722	Tulip tree	19.0	55.1	1,963.34	Good	12,299.38	148.50	6.26	1,052.71	74.47	8,465.0	YES	NO
723	Tulip tree	21.0	55.1	1,963.34	Good	12,299.38	148.50	6.26	1,337.92	85.47	10,126.0	YES	NO
724	Tulip tree	24.0	55.1	1,963.34	Good	12,299.38	148.50	6.26	1,842.25	102.76	12,929.0	YES	NO
725	Tulip tree	28.0	55.1	1,963.34	Good	12,299.38	148.50	6.26	2,665.10	127.12	17,247.0	YES	NO
726	Scarlet oak	25.0	60.0	2,375.60	Good	7,854.53	117.22	3.31	2,870.24	160.28	17,563.0	YES	NO
727	Common crapemyrtle	8.0	24.9	397.19	Good	1,348.61	20.68	3.39	156.48	27.09	2,152.0	YES	NO
728	Common crapemyrtle	8.0	24.9	397.19	Good	1,025.48	15.72	2.58	156.48	14.90	2,152.0	YES	NO
729	Common crapemyrtle	6.0	20.0	240.04	Good	344.66	5.29	1.43	77.62	9.94	1,655.0	YES	NO
730	Scarlet oak	22.0	60.0	2,375.60	Good	7,854.53	117.22	3.31	2,085.90	132.65	13,799.0	YES	NO
731	Scarlet oak	24.0	65.0	1,963.34	Good	6,198.72	92.51	3.16	2,592.09	150.88	16,255.0	YES	NO
732	Scarlet oak	23.0	65.0	1,963.34	Good	7,174.58	107.08	3.65	2,330.77	141.67	15,001.0	YES	NO
734	London plane	32.0	69.9	3,318.51	Fair	20,759.39	195.31	6.26	4,625.54	194.91	18,807.0	YES	NO
735	Callery pear	4.0	20.0	240.04	Good	642.61	9.85	2.67	29.70	10.65	1,300.0	YES	NO
736	Callery pear	4.0	15.1	122.71	Good	305.05	4.67	2.49	28.99	10.47	1,300.0	YES	NO
737	Callery pear	8.0	24.9	397.19	Good	1,401.57	21.50	3.53	156.48	27.09	2,152.0	YES	NO
738	Callery pear	8.0	24.9	397.19	Good	1,401.57	21.50	3.53	156.48	27.09	2,152.0	YES	NO
740	Caucasian ash	12.0	20.0	240.04	Poor	386.32	5.62	1.61	328.14	26.98	2,584.0	YES	NO
741	Caucasian ash	9.0	20.0	240.04	Poor	386.32	5.62	1.61	172.60	18.85	1,731.0	YES	NO
742	London plane	24.0	35.1	962.29	Fair	4,460.56	41.95	4.64	2,219.02	125.99	11,159.0	YES	NO
743	Callery pear	6.0	20.0	240.04	Good	642.61	9.85	2.67	77.62	18.17	1,655.0	YES	NO
744	Callery pear	6.0	20.0	240.04	Good	642.61	9.85	2.67	77.62	18.17	1,655.0	YES	NO
745	Callery pear	3.0	15.1	122.71	Good	305.05	4.67	2.49	14.68	7.23	455.0	YES	NO
746	Callery pear	3.0	15.1	122.71	Good	305.05	4.67	2.49	14.68	7.23	455.0	YES	NO
747	Callery pear	3.0	15.1	122.71	Good	305.05	4.67	2.49	14.68	7.23	455.0	YES	NO
748	Callery pear	3.0	15.1	122.71	Good	305.05	4.67	2.49	14.68	7.23	455.0	YES	NO
749	Callery pear	3.0	15.1	122.71	Good	305.05	4.67	2.49	14.68	7.23	455.0	YES	NO
750	Camphor tree	2.0	9.8	78.58	Good	132.93	1.83	1.69	6.17	4.25	202.0	YES	NO
751	Camphor tree	16.3	24.9	397.19	Fair	1,173.48	16.25	2.95	863.73	72.18	4,937.0	YES	NO
752	Camphor tree	17.0	29.9	490.83	Fair	1,616.85	22.38	3.29	969.37	77.21	5,304.0	YES	NO
753	Camphor tree	13.0	29.9	490.83	Fair	1,616.85	22.38	3.29	513.85	53.18	3,466.0	YES	NO
754	Camphor tree	14.0	29.9	490.83	Fair	1,616.85	22.38	3.29	611.85	58.93	3,880.0	YES	NO
755	Camphor tree	18.0	35.1	707.19	Fair	2,482.59	34.35	3.51	1,125.28	84.15	5,840.0	YES	NO
756	Camphor tree	18.0	35.1	707.19	Fair	2,883.01	39.90	4.08	1,127.51	84.15	5,840.0	YES	NO
757	Camphor tree	14.0	35.1	707.19	Poor	2,482.59	34.35	3.51	622.83	44.82	2,933.0	YES	NO
758	Callery pear	5.0	20.0	240.04	Good	576.41	8.84	2.4	50.35	14.26	1,460.0	YES	NO
759	Camphor tree	14.0	29.9	490.83	Fair	633.99	8.77	1.29	606.40	32.69	3,880.0	YES	NO
760	Camphor tree	10.0	20.0	314.31	Fair	347.14	4.81	1.1	264.86	36.40	2,409.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
761	Camphor tree	8.0	9.8	78.58	Poor	19.48	0.26	0.25	149.27	19.69	1,404.0	YES	NO
762	Sweetgum	11.0	35.1	962.29	Good	3,502.25	32.94	3.64	190.15	19.31	3,482.0	YES	NO
763	Sweetgum	11.0	35.1	962.29	Good	3,502.25	32.94	3.64	190.15	19.31	3,482.0	YES	NO
764	Sweetgum	19.0	55.1	1,963.34	Good	7,406.32	69.64	3.77	733.61	43.17	8,465.0	YES	NO
765	Sweetgum	19.0	65.0	1,963.34	Good	8,199.62	77.10	4.18	848.89	48.94	8,465.0	YES	NO
766	Sweetgum	12.0	44.9	1,104.38	Good	3,311.73	31.13	3	275.75	25.13	3,960.0	YES	NO
767	Sweetgum	11.0	49.9	1,590.91	Good	2,743.07	25.79	1.72	259.70	25.40	3,482.0	YES	NO
768	Common crapemyrtle	4.0	15.1	122.71	Good	274.48	4.21	2.24	28.99	10.47	1,300.0	YES	NO
769	Sweetgum	13.0	49.9	1,590.91	Good	3,314.53	31.17	2.08	347.74	29.12	4,479.0	YES	NO
770	Scarlet oak	16.0	29.9	707.19	Fair	1,526.00	22.77	2.16	941.81	82.94	6,658.0	YES	NO
771	Scarlet oak	15.0	55.1	1,963.34	Fair	4,999.08	74.60	2.55	801.62	75.42	5,944.0	YES	NO
772	Sweetgum	17.0	49.9	1,590.91	Good	3,314.53	31.17	2.08	555.74	36.55	6,970.0	YES	NO
773	Sweetgum	12.0	44.9	1,104.38	Good	4,001.70	37.63	3.62	275.75	25.13	3,960.0	YES	NO
774	Sweetgum	12.0	44.9	1,104.38	Good	3,541.76	33.31	3.21	275.75	25.13	3,960.0	YES	NO
775	Sweetgum	16.0	55.1	1,963.34	Good	6,954.67	65.39	3.54	543.29	37.28	6,285.0	YES	NO
776	Sweetgum	17.0	60.0	2,375.60	Good	8,415.23	79.12	3.54	651.71	41.93	6,970.0	YES	NO
777	Sweetgum	15.0	49.9	1,590.91	Good	2,552.55	24.01	1.6	446.55	32.85	5,642.0	YES	NO
778	Sweetgum	13.0	44.9	1,104.38	Good	3,541.76	33.31	3.21	317.16	26.87	4,479.0	YES	NO
779	Sweetgum	17.0	55.1	1,963.34	Good	7,406.32	69.64	3.77	604.00	39.24	6,970.0	YES	NO
780	Sweetgum	21.0	69.9	1,590.91	Good	5,840.07	54.92	3.67	1,078.81	56.37	10,126.0	YES	NO
782	Sweetgum	17.0	49.9	1,590.91	Good	2,743.07	25.79	1.72	555.74	36.55	6,970.0	YES	NO
783	Sweetgum	9.0	29.9	707.19	Good	2,518.54	23.68	3.56	117.02	14.53	2,652.0	YES	NO
784	Sweetgum	21.0	60.0	2,375.60	Good	7,868.74	73.99	3.31	942.85	50.22	10,126.0	YES	NO
785	Sweetgum	20.0	60.0	2,375.60	Good	7,868.74	73.99	3.31	865.80	48.15	9,275.0	YES	NO
786	Sweetgum	16.0	49.9	1,590.91	Good	2,362.14	22.20	1.49	499.88	34.70	6,285.0	YES	NO
787	Sweetgum	19.0	60.0	2,375.60	Good	8,415.23	79.12	3.54	791.55	46.08	8,465.0	YES	NO
788	Camphor tree	32.0	49.9	1,590.91	Good	3,171.26	43.89	1.99	4,539.38	191.74	18,813.0	YES	NO
789	Camphor tree	21.0	49.9	1,590.91	Good	3,171.26	43.89	1.99	1,664.51	106.17	8,843.0	YES	NO
790	Scarlet oak	19.0	35.1	962.29	Fair	1,468.31	21.91	1.53	1,446.50	106.84	9,077.0	YES	NO
791	Scarlet oak	12.0	35.1	962.29	Good	2,691.84	40.17	2.8	459.20	54.37	4,724.0	YES	NO
792	Scarlet oak	16.0	44.9	1,104.38	Good	3,087.20	46.08	2.8	941.81	82.94	7,713.0	YES	NO
793	Scarlet oak	18.0	55.1	1,963.34	Fair	5,372.16	80.18	2.74	1,263.82	98.63	8,225.0	YES	NO
794	Scarlet oak	20.0	55.1	1,963.34	Good	6,118.31	91.32	3.12	1,644.14	115.24	11,557.0	YES	NO
795	Scarlet oak	19.0	55.1	1,963.34	Good	6,118.31	91.32	3.12	1,446.50	106.84	10,516.0	YES	NO
798	London plane	19.0	35.1	962.29	Fair	3,531.21	33.22	3.67	1,265.50	90.76	7,307.0	YES	NO
799	London plane	28.0	44.9	1,104.38	Fair	4,470.14	42.06	4.05	3,259.80	158.12	14,887.0	YES	NO
800	London plane	23.0	49.9	1,590.91	Fair	3,624.10	34.11	2.28	2,047.26	67.22	10,317.0	YES	NO
801	London plane	20.0	55.1	1,963.34	Fair	6,164.38	58.00	3.14	1,477.01	55.58	8,006.0	YES	NO
802	London plane	29.0	65.0	1,963.34	Fair	10,178.78	95.77	5.18	3,634.41	169.09	15,908.0	YES	NO
806	Japanese zelkova	20.0	40.0	962.29	Good	3,351.34	51.39	3.48	1,442.97	98.08	9,275.0	YES	NO
807	Camphor tree	33.0	35.1	707.19	Fair	2,482.59	34.35	3.51	4,798.01	197.78	17,165.0	YES	NO
808	London plane	16.0	44.9	1,104.38	Fair	4,470.14	42.06	4.05	853.67	72.38	5,425.0	YES	NO
809	London plane	24.0	60.0	2,375.60	Fair	12,439.85	117.02	5.24	2,297.94	129.21	11,159.0	YES	NO
810	London plane	18.0	35.1	962.29	Fair	3,531.21	33.22	3.67	1,111.55	84.15	6,644.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
811	English walnut	14.0	20.0	240.04	Fair	394.82	3.42	1.64	590.13	32.21	3,424.0	YES	NO
814	Scarlet oak	11.0	40.0	962.29	Good	2,621.34	39.13	2.72	369.52	26.46	4,110.0	YES	NO
815	Scarlet oak	17.0	40.0	962.29	Fair	1,950.53	29.10	2.03	1,095.72	90.68	7,418.0	YES	NO
816	Scarlet oak	16.0	29.9	707.19	Fair	1,258.30	18.78	1.78	941.81	82.94	6,658.0	YES	NO
817	London plane	26.0	44.9	1,104.38	Fair	3,724.85	35.05	3.37	2,727.98	79.50	12,951.0	YES	NO
818	London plane	16.0	44.9	1,104.38	Fair	4,803.72	45.19	4.35	853.67	72.38	5,425.0	YES	NO
831	Tulip tree	20.0	49.9	1,590.91	Good	5,238.69	63.25	3.29	1,190.34	79.92	9,275.0	YES	NO
845	Tulip tree	20.0	55.1	1,963.34	Fair	10,178.78	122.89	5.18	1,190.34	79.92	8,006.0	YES	NO
846	Quercus suber	30.0	49.9	1,590.91	Fair	2,648.57	96.43	1.67	4,632.42	119.49	20,184.0	YES	NO
850	Japanese zelkova	19.0	35.1	962.29	Fair	2,361.71	36.22	2.45	1,265.50	90.76	7,307.0	YES	NO
852	Sweetgum	15.0	44.9	1,104.38	Good	2,704.86	25.44	2.45	407.28	16.91	5,642.0	YES	NO
853	Sweetgum	22.0	65.0	1,963.34	Good	6,785.89	63.80	3.46	1,096.80	55.47	11,019.0	YES	NO
856	Quercus suber	22.0	35.1	962.29	Good	2,167.53	78.93	2.25	2,112.65	132.98	12,994.0	YES	NO
857	Quercus suber	31.0	49.9	1,590.91	Good	2,401.21	87.44	1.51	5,015.89	224.56	24,418.0	YES	NO
858	Tulip tree	23.0	55.1	1,963.34	Good	11,592.52	139.97	5.9	1,663.67	96.89	11,953.0	YES	NO
859	London plane	17.0	40.0	962.29	Good	4,785.85	45.02	4.97	977.88	78.22	6,970.0	YES	NO
860	London plane	22.0	44.9	1,104.38	Good	5,137.29	48.33	4.65	1,827.24	112.70	11,019.0	YES	NO
862	Quercus ilex	20.0	24.9	397.19	Fair	954.76	19.29	2.4	1,618.52	113.85	9,405.0	YES	NO
863	Tulip tree	14.0	35.1	962.29	Fair	5,197.78	62.77	5.4	506.53	48.99	4,350.0	YES	NO
866	Sweetgum	13.0	40.0	707.19	Fair	2,852.11	26.81	4.03	286.14	24.60	3,866.0	YES	NO
867	Sweetgum	13.0	40.0	707.19	Fair	2,852.11	26.81	4.03	286.14	24.60	3,866.0	YES	NO
868	Sweetgum	17.0	55.1	1,963.34	Good	7,406.32	69.64	3.77	604.00	39.24	6,970.0	YES	NO
869	Sweetgum	15.0	55.1	1,963.34	Good	7,406.32	69.64	3.77	485.33	35.32	5,642.0	YES	NO
870	Callery pear	4.0	20.0	240.04	Good	609.56	9.35	2.53	29.70	10.65	1,300.0	YES	NO
871	Sweetgum	15.0	49.9	1,590.91	Good	2,882.04	27.09	1.81	446.55	18.30	5,642.0	YES	NO
872	Sweetgum	15.0	49.9	1,590.91	Good	2,882.04	27.09	1.81	446.55	18.30	5,642.0	YES	NO
873	Southern magnolia	11.7	20.0	240.04	Good	537.98	14.88	2.24	386.23	45.00	4,510.0	YES	NO
874	Southern magnolia	14.0	29.9	707.19	Good	2,369.03	65.52	3.35	629.11	58.93	6,112.0	YES	NO
875	Southern magnolia	11.0	24.9	397.19	Good	1,173.48	32.45	2.95	347.65	41.87	4,110.0	YES	NO
876	Southern magnolia	16.0	29.9	707.19	Good	2,369.03	65.52	3.35	856.56	70.94	7,713.0	YES	NO
877	Southern magnolia	16.0	29.9	707.19	Good	2,722.62	75.31	3.85	860.46	70.94	7,713.0	YES	NO
878	Common crapemyrtle	1.0	4.9	12.92	Poor	26.59	0.40	2.12	1.01	1.30	35.0	YES	NO
879	Flowering dogwood	6.0	24.9	240.04	Good	801.48	9.55	3.33	81.66	18.98	1,655.0	YES	NO
881	Flowering dogwood	8.0	24.9	240.04	Good	801.48	9.55	3.33	162.11	27.84	2,152.0	YES	NO
882	Common crapemyrtle	1.0	4.9	12.92	Poor	26.59	0.40	2.12	1.01	1.30	35.0	YES	NO
883	Common crapemyrtle	1.0	4.9	12.92	Poor	26.59	0.40	2.12	1.01	1.30	35.0	YES	NO
884	Flowering dogwood	8.0	24.9	240.04	Good	801.48	9.55	3.33	162.11	27.84	2,152.0	YES	NO
885	Common crapemyrtle	1.0	4.9	12.92	Poor	26.59	0.40	2.12	1.01	1.30	35.0	YES	NO
886	Common crapemyrtle	1.0	4.9	12.92	Good	26.59	0.40	2.12	1.01	1.85	53.0	YES	NO
887	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
888	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
889	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
890	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
891	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
892	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
893	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
894	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
895	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
896	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
897	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
898	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
899	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
900	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
901	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
903	Flowering dogwood	8.0	24.9	240.04	Good	801.48	9.55	3.33	162.11	27.84	2,152.0	YES	NO
904	Flowering dogwood	8.0	24.9	240.04	Good	801.48	9.55	3.33	162.11	27.84	2,152.0	YES	NO
905	Flowering dogwood	8.0	24.9	240.04	Good	801.48	9.55	3.33	162.11	27.84	2,152.0	YES	NO
906	Callery pear	6.0	24.9	397.19	Good	1,184.89	18.17	2.98	79.04	18.41	1,655.0	YES	NO
907	Callery pear	6.0	20.0	240.04	Good	443.90	6.81	1.85	77.62	18.17	1,655.0	YES	NO
908	Callery pear	7.0	24.9	397.19	Good	1,184.89	18.17	2.98	113.93	22.62	1,886.0	YES	NO
909	Callery pear	6.0	20.0	240.04	Good	443.90	6.81	1.85	77.62	18.17	1,655.0	YES	NO
910	Tulip tree	14.0	35.1	962.29	Good	4,185.22	50.53	4.35	506.53	48.99	5,039.0	YES	NO
911	Callery pear	6.0	20.0	240.04	Good	443.90	6.81	1.85	77.62	18.17	1,655.0	YES	NO
912	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
913	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
914	Callery pear	7.0	24.9	397.19	Good	968.11	14.84	2.43	113.93	22.62	1,886.0	YES	NO
915	Tulip tree	17.0	49.9	1,590.91	Good	4,636.55	55.98	2.92	806.47	63.91	6,970.0	YES	NO
916	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
917	London plane	19.0	40.0	962.29	Good	4,785.85	45.02	4.97	1,276.08	91.32	8,465.0	YES	NO
918	London plane	21.0	29.9	707.19	Fair	2,704.22	25.44	3.83	1,596.50	103.84	8,740.0	YES	NO
919	Callery pear	5.0	20.0	240.04	Good	543.25	8.33	2.26	50.35	14.26	1,460.0	YES	NO
921	Scarlet oak	18.0	49.9	1,590.91	Good	2,401.21	35.85	1.51	1,263.82	98.63	9,529.0	YES	NO
922	Scarlet oak	20.0	55.1	1,963.34	Good	5,745.24	85.74	2.93	1,644.14	115.24	11,557.0	YES	NO
923	Sweetgum	13.0	35.1	962.29	Fair	2,648.03	24.89	2.75	254.63	22.29	3,866.0	YES	NO
924	Sweetgum	13.0	40.0	962.29	Good	3,299.46	31.02	3.43	286.14	24.60	4,479.0	YES	NO
927	Callery pear	1.0	5.9	12.92	Fair	42.19	0.64	3.36	1.01	1.87	46.0	YES	NO
928	Common crapemyrtle	1.0	6.9	12.92	Fair	47.04	0.73	3.74	1.04	1.87	46.0	YES	NO
929	Common crapemyrtle	1.0	6.9	12.92	Fair	47.04	0.73	3.74	1.04	1.87	46.0	YES	NO
930	Common crapemyrtle	1.0	6.9	12.92	Fair	47.04	0.73	3.74	1.04	1.87	46.0	YES	NO
931	Northern red oak	10.0	35.1	962.29	Good	2,661.59	43.43	2.77	297.89	22.86	3,298.0	YES	NO
932	Northern red oak	8.0	24.9	397.19	Good	1,043.78	17.04	2.63	173.24	16.71	2,444.0	YES	NO
933	Callery pear	13.7	40.0	962.29	Good	2,533.93	38.87	2.63	585.42	58.09	4,353.0	YES	NO
934	Callery pear	11.0	35.1	962.29	Good	2,361.71	36.22	2.45	342.77	42.62	3,164.0	YES	NO
935	Northern red oak	8.0	29.9	707.19	Good	2,532.86	41.34	3.58	173.24	30.38	2,444.0	YES	NO
936	Callery pear	9.0	24.9	397.19	Good	1,040.33	15.96	2.62	207.19	31.81	2,454.0	YES	NO
937	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
938	Tulip tree	15.0	40.0	962.29	Good	5,214.79	62.96	5.42	597.56	53.84	5,642.0	YES	NO
939	Tulip tree	18.0	44.9	1,104.38	Good	5,234.27	63.18	4.74	924.82	69.14	7,697.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
940	Tulip tree	14.0	35.1	962.29	Good	4,522.78	54.61	4.7	506.53	48.99	5,039.0	YES	NO
941	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
942	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
943	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
944	Tulip tree	17.0	49.9	1,590.91	Good	4,636.55	55.98	2.92	806.47	63.91	6,970.0	YES	NO
945	Tulip tree	16.0	40.0	962.29	Good	5,214.79	62.96	5.42	697.48	58.82	6,285.0	YES	NO
946	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
947	Common crapemyrtle	3.0	9.8	50.59	Good	119.26	1.83	2.37	14.24	7.08	455.0	YES	NO
948	Caucasian ash	8.0	15.1	176.53	Fair	414.52	6.04	2.35	127.45	21.05	1,984.0	YES	NO
949	Caucasian ash	8.0	15.1	176.53	Fair	414.52	6.04	2.35	127.45	21.05	1,984.0	YES	NO
951	Sweetgum	16.0	49.9	1,590.91	Good	2,681.94	25.22	1.69	499.88	19.33	6,285.0	YES	NO
952	Sweetgum	10.0	44.9	1,104.38	Fair	2,517.03	23.68	2.28	200.51	12.02	2,630.0	YES	NO
953	Chinese elm	17.0	40.0	962.29	Good	5,012.11	116.65	5.21	822.90	65.19	6,991.0	YES	NO
954	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
955	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
956	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
957	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
958	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
959	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
960	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
961	Northern red oak	1.0	15.1	122.71	Good	323.02	5.27	2.63	1.10	2.12	71.0	YES	NO
962	Sweetgum	12.0	44.9	1,104.38	Good	3,311.73	31.13	3	275.75	25.13	3,960.0	YES	NO
963	Sweetgum	13.0	49.9	1,590.91	Good	3,124.12	29.37	1.96	347.74	29.12	4,479.0	YES	NO
964	Scarlet oak	16.0	44.9	1,104.38	Good	2,899.04	43.25	2.62	941.81	82.94	7,713.0	YES	NO
965	Scarlet oak	16.0	44.9	1,104.38	Fair	2,899.04	43.25	2.62	941.81	82.94	6,658.0	YES	NO
966	Scarlet oak	14.0	44.9	1,104.38	Good	2,295.62	34.26	2.08	674.77	37.81	6,112.0	YES	NO
967	Scarlet oak	19.0	69.9	3,318.51	Good	9,709.37	144.91	2.93	1,446.50	106.84	10,516.0	YES	NO
968	London plane	28.0	85.0	4,717.82	Fair	26,303.66	247.47	5.58	3,421.68	163.80	14,887.0	YES	NO
969	London plane	14.0	20.0	240.04	Critical	656.28	6.17	2.73	590.13	10.54	1,963.0	YES	NO
970	London plane	26.0	80.1	4,417.51	Good	24,634.07	231.75	5.58	2,852.32	147.16	15,005.0	YES	NO
973	Sweetgum	14.0	40.0	962.29	Good	3,299.46	31.02	3.43	325.71	26.21	5,039.0	YES	NO
974	Sweetgum	12.0	29.9	707.19	Good	2,354.93	22.13	3.33	193.48	18.58	3,960.0	YES	NO
975	London plane	22.0	55.1	1,963.34	Good	9,613.25	90.43	4.9	1,854.04	113.89	11,019.0	YES	NO
976	London plane	12.0	29.9	707.19	Fair	752.61	7.08	1.06	416.96	20.70	3,418.0	YES	NO
977	London plane	14.0	35.1	962.29	Good	2,912.93	27.40	3.03	609.09	32.94	5,039.0	YES	NO
978	London plane	11.0	24.9	397.19	Fair	954.97	8.99	2.4	334.66	23.17	3,006.0	YES	NO
979	London plane	14.0	49.9	1,590.91	Good	3,978.88	37.43	2.5	627.22	60.63	5,039.0	YES	NO
980	London plane	15.0	24.9	397.19	Fair	1,222.03	11.49	3.07	704.13	64.37	4,870.0	YES	NO
981	London plane	14.0	20.0	240.04	Fair	452.51	4.25	1.88	590.13	58.03	4,350.0	YES	NO
982	London plane	15.0	24.9	397.19	Poor	771.34	7.25	1.94	704.13	27.07	3,682.0	YES	NO
983	Modesto ash	17.0	55.1	1,963.34	Fair	6,503.12	94.82	3.31	839.52	61.86	5,316.0	YES	NO
985	Camphor tree	15.0	24.9	397.19	Good	1,348.61	18.67	3.39	711.59	64.37	5,009.0	YES	NO
987	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
988	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
989	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
990	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
991	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
992	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
993	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
994	Black locust	14.0	24.9	397.19	Good	998.35	11.00	2.51	596.57	58.49	3,431.0	YES	NO
995	Chinese pistache	20.0	40.0	962.29	Good	4,189.31	65.50	4.35	1,442.97	98.08	8,115.0	YES	NO
996	Chinese pistache	24.0	40.0	962.29	Good	4,189.31	65.50	4.35	2,235.16	126.66	11,239.0	YES	NO
998	Tulip tree	21.0	44.9	1,104.38	Fair	5,234.27	63.18	4.74	1,337.92	85.47	8,740.0	YES	NO
999	Tulip tree	16.0	40.0	962.29	Fair	5,214.79	62.96	5.42	697.48	58.82	5,425.0	YES	NO
1002	London plane	28.0	40.0	962.29	Good	5,118.24	48.15	5.32	3,238.74	157.39	17,247.0	YES	NO
1003	Camphor tree	16.0	24.9	397.19	Good	1,348.61	18.67	3.39	829.80	70.46	5,560.0	YES	NO
1004	Camphor tree	16.0	24.9	397.19	Good	1,348.61	18.67	3.39	829.80	70.46	5,560.0	YES	NO
1005	Camphor tree	15.0	20.0	314.31	Fair	726.78	10.05	2.31	700.85	63.91	4,324.0	YES	NO
1006	Camphor tree	11.0	15.1	176.53	Fair	311.51	4.32	1.76	327.92	41.12	2,731.0	YES	NO
1007	Camphor tree	12.0	20.0	314.31	Fair	726.78	10.05	2.31	411.32	46.83	3,083.0	YES	NO
1009	Northern red oak	12.0	29.9	707.19	Good	2,532.86	41.34	3.58	463.92	53.35	4,342.0	YES	NO
1011	Sweetgum	12.0	29.9	707.19	Fair	1,591.98	14.97	2.25	193.48	10.32	3,418.0	YES	NO
1012	Chinese pistache	25.0	49.9	1,771.74	Good	6,251.79	97.75	3.53	2,499.76	135.47	12,108.0	YES	NO
1016	Northern red oak	16.0	29.9	707.19	Good	2,378.50	38.82	3.36	933.19	79.85	6,999.0	YES	NO
1017	Scarlet oak	19.0	35.1	962.29	Good	2,221.89	33.16	2.31	1,446.50	59.46	10,516.0	YES	NO
1018	Scarlet oak	24.0	44.9	1,104.38	Good	2,295.62	34.26	2.08	2,592.09	84.13	16,255.0	YES	NO
1019	Scarlet oak	18.0	40.0	962.29	Good	2,018.77	30.14	2.1	1,263.82	54.87	9,529.0	YES	NO
1022	Japanese zelkova	16.0	29.9	707.19	Fair	2,100.36	32.21	2.97	830.35	70.94	5,425.0	YES	NO
1023	Japanese zelkova	18.0	35.1	962.29	Fair	2,552.23	39.13	2.65	1,111.55	84.15	6,644.0	YES	NO
1024	Japanese zelkova	22.0	35.1	962.29	Good	2,742.64	42.06	2.85	1,799.83	111.49	11,019.0	YES	NO
1025	Chinese pistache	28.0	49.9	1,771.74	Good	6,251.79	97.75	3.53	3,280.61	158.84	14,930.0	YES	NO
1026	Chinese pistache	13.0	35.1	962.29	Good	2,836.40	44.36	2.95	510.33	29.72	4,015.0	YES	NO
1027	Chinese pistache	19.0	35.1	962.29	Good	2,836.40	44.36	2.95	1,265.50	50.53	7,423.0	YES	NO
1028	Scarlet oak	19.0	35.1	962.29	Fair	2,517.03	37.57	2.62	1,446.50	106.84	9,077.0	YES	NO
1029	Chinese pistache	18.0	29.9	707.19	Good	2,990.11	46.76	4.23	1,101.80	83.64	6,766.0	YES	NO
1030	Chinese pistache	18.0	40.0	962.29	Good	4,189.31	65.50	4.35	1,121.16	84.68	6,766.0	YES	NO
1031	Chinese pistache	18.0	40.0	962.29	Good	4,189.31	65.50	4.35	1,121.16	84.68	6,766.0	YES	NO
1032	Chinese pistache	18.0	35.1	962.29	Good	3,397.52	53.11	3.53	1,111.55	84.15	6,766.0	YES	NO
1033	Sweetgum	12.0	35.1	594.17	Good	2,049.99	19.27	3.45	221.39	20.79	3,960.0	YES	NO
1034	Sweetgum	9.0	29.9	594.17	Good	2,049.99	19.27	3.45	117.02	14.53	2,652.0	YES	NO
1035	Sweetgum	13.0	40.0	594.17	Good	2,774.83	26.08	4.67	286.14	24.60	4,479.0	YES	NO
1036	Sweetgum	12.0	35.1	594.17	Good	2,384.96	22.42	4.02	221.39	20.79	3,960.0	YES	NO
1037	Modesto ash	20.2	29.9	707.19	Fair	2,354.93	34.35	3.33	1,117.19	71.54	7,174.0	YES	NO
1038	Scarlet oak	16.0	35.1	962.29	Good	2,517.03	37.57	2.62	941.81	82.94	7,713.0	YES	NO
1039	White mulberry	8.8	15.1	122.71	Good	331.64	4.96	2.7	189.40	30.09	2,383.0	YES	NO
1040	Oleander	2.6	9.8	50.59	Good	123.46	3.77	2.46	12.06	3.20	354.0	YES	NO
1041	Hind walnut	14.0	15.1	122.71	Fair	145.53	1.65	1.19	583.52	25.09	3,656.0	YES	YES
1042	Scarlet oak	19.0	44.9	1,104.38	Good	2,522.52	37.65	2.28	1,446.50	106.84	10,516.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1043	Scarlet oak	23.0	55.1	1,963.34	Good	5,745.24	85.74	2.93	2,330.77	141.67	15,001.0	YES	NO
1044	Scarlet oak	17.0	35.1	962.29	Good	2,342.33	34.97	2.43	1,095.72	90.68	8,594.0	YES	NO
1045	Scarlet oak	18.0	35.1	962.29	Good	2,342.33	34.97	2.43	1,263.82	98.63	9,529.0	YES	NO
1046	Northern red oak	12.0	29.9	707.19	Good	2,532.86	41.34	3.58	463.92	53.35	4,342.0	YES	NO
1047	Northern red oak	12.0	29.9	707.19	Good	2,532.86	41.34	3.58	463.92	53.35	4,342.0	YES	NO
1048	Callery pear	5.0	20.0	240.04	Fair	421.41	6.46	1.75	50.35	7.76	1,260.0	YES	NO
1049	Callery pear	6.4	20.0	240.04	Fair	421.41	6.46	1.75	90.61	10.85	1,505.0	YES	NO
1050	Northern red oak	15.0	35.1	962.29	Good	3,307.53	53.97	3.44	797.76	72.93	6,264.0	YES	NO
1051	Callery pear	7.1	20.0	240.04	Fair	421.41	6.46	1.75	114.79	12.43	1,643.0	YES	NO
1052	Northern red oak	13.0	35.1	962.29	Good	3,307.53	53.97	3.44	563.50	59.68	4,935.0	YES	NO
1053	Callery pear	3.0	9.8	50.59	Fair	50.27	0.77	1	14.24	7.08	393.0	YES	NO
1054	Callery pear	5.0	15.1	122.71	Fair	195.04	3.00	1.59	49.30	14.04	1,260.0	YES	NO
1055	Northern red oak	12.0	24.9	397.19	Poor	1,025.15	16.73	2.58	463.92	40.23	2,834.0	YES	NO
1056	Sweetgum	12.0	24.9	397.19	Fair	1,004.49	9.44	2.53	164.99	16.31	3,418.0	YES	NO
1057	Sweetgum	8.0	20.0	240.04	Fair	460.59	4.32	1.91	66.84	9.74	1,984.0	YES	NO
1058	Sweetgum	11.0	29.9	707.19	Fair	2,354.93	22.13	3.33	166.18	17.22	3,006.0	YES	NO
1059	Sweetgum	17.0	40.0	962.29	Fair	3,299.46	31.02	3.43	457.28	31.04	6,016.0	YES	NO
1060	Sweetgum	13.0	40.0	962.29	Fair	2,563.53	24.10	2.66	286.14	13.69	3,866.0	YES	NO
1061	Sweetgum	9.0	35.1	962.29	Fair	2,451.37	23.06	2.55	133.91	9.06	2,289.0	YES	NO
1062	Sweetgum	9.0	24.9	397.19	Poor	693.95	6.53	1.75	99.80	5.31	1,731.0	YES	NO
1063	Sweetgum	8.0	29.9	707.19	Good	1,848.81	17.39	2.62	95.26	7.30	2,299.0	YES	NO
1064	Sweetgum	12.0	35.1	962.29	Good	3,075.14	28.92	3.2	221.39	20.79	3,960.0	YES	NO
1065	Sweetgum	13.0	35.1	962.29	Good	3,075.14	28.92	3.2	254.63	22.29	4,479.0	YES	NO
1066	Northern red oak	11.0	24.9	397.19	Fair	1,178.11	19.22	2.96	375.51	47.27	3,277.0	YES	NO
1067	Callery pear	5.8	15.1	122.71	Fair	242.19	3.70	1.97	71.14	17.26	1,398.0	YES	NO
1068	Callery pear	5.8	15.1	122.71	Fair	242.19	3.70	1.97	71.14	17.26	1,398.0	YES	NO
1069	Northern red oak	14.0	35.1	962.29	Good	3,307.53	53.97	3.44	674.66	66.20	5,576.0	YES	NO
1070	Callery pear	7.1	15.1	122.71	Fair	207.10	3.17	1.69	112.83	12.28	1,643.0	YES	NO
1071	Northern red oak	18.0	35.1	962.29	Good	3,307.53	53.97	3.44	1,242.35	94.25	8,613.0	YES	NO
1072	Callery pear	5.8	15.1	122.71	Fair	207.10	3.17	1.69	71.14	9.41	1,398.0	YES	NO
1073	Callery pear	9.1	20.0	240.04	Fair	421.41	6.46	1.75	210.34	17.66	2,149.0	YES	NO
1074	Northern red oak	13.0	35.1	962.29	Good	3,307.53	53.97	3.44	563.50	59.68	4,935.0	YES	NO
1075	Northern red oak	9.0	20.0	240.04	Poor	364.79	5.95	1.52	230.63	26.90	1,858.0	YES	NO
1076	Sweetgum	17.0	44.9	1,104.38	Good	3,081.82	28.97	2.79	506.86	33.82	6,970.0	YES	NO
1077	Sweetgum	16.0	49.9	1,590.91	Good	2,552.55	24.01	1.6	499.88	34.70	6,285.0	YES	NO
1078	Callery pear	4.0	15.1	122.71	Good	257.90	3.95	2.1	28.99	10.47	1,300.0	YES	NO
1079	Callery pear	4.0	15.1	122.71	Good	257.90	3.95	2.1	28.99	10.47	1,300.0	YES	NO
1080	Callery pear	7.0	24.9	397.19	Good	1,184.89	18.17	2.98	113.93	22.62	1,886.0	YES	NO
1081	Callery pear	7.0	24.9	397.19	Good	1,184.89	18.17	2.98	113.93	22.62	1,886.0	YES	NO
1082	Callery pear	6.0	24.9	397.19	Good	1,184.89	18.17	2.98	79.04	18.41	1,655.0	YES	NO
1083	Callery pear	6.0	24.9	397.19	Good	1,184.89	18.17	2.98	79.04	18.41	1,655.0	YES	NO
1084	Callery pear	6.0	24.9	397.19	Good	1,184.89	18.17	2.98	79.04	18.41	1,655.0	YES	NO
1088	Tulip tree	18.0	40.0	962.29	Good	5,214.79	62.96	5.42	924.82	69.14	7,697.0	YES	NO
1090	Common crapemyrtle	2.0	7.9	12.92	Good	60.92	0.93	4.85	5.36	4.21	202.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1091	Tulip tree	13.0	24.9	397.19	Good	1,843.64	22.27	4.64	424.15	44.27	4,479.0	YES	NO
1092	Tulip tree	12.0	20.0	240.04	Good	845.29	10.21	3.51	350.14	39.68	3,960.0	YES	NO
1093	Sweetgum	20.0	49.9	1,590.91	Good	2,743.07	25.79	1.72	738.28	42.09	9,275.0	YES	NO
1094	Common crapemyrtle	7.1	15.1	122.71	Good	259.09	3.97	2.11	112.83	12.28	1,904.0	YES	NO
1095	Cherry plum	8.7	20.0	240.04	Good	527.97	6.57	2.2	223.17	19.91	2,347.0	YES	NO
1096	London plane	16.0	29.9	707.19	Fair	2,466.98	23.21	3.49	830.35	70.94	5,425.0	YES	NO
1097	London plane	21.0	40.0	962.29	Fair	4,121.18	38.78	4.28	1,622.05	105.01	8,740.0	YES	NO
1098	London plane	14.0	29.9	707.19	Fair	2,199.82	20.70	3.11	602.90	32.69	4,350.0	YES	NO
1099	London plane	15.0	29.9	707.19	Fair	2,199.82	20.70	3.11	711.28	36.02	4,870.0	YES	NO
1101	London plane	14.0	35.1	962.29	Fair	4,150.78	39.04	4.31	609.09	59.35	4,350.0	YES	NO
1102	Tulip tree	11.0	35.1	962.29	Fair	4,860.23	58.69	5.05	284.26	35.25	3,006.0	YES	NO
1103	Japanese zelkova	17.0	29.9	707.19	Good	2,100.36	32.21	2.97	960.42	77.21	6,970.0	YES	NO
1104	Sweetgum	16.0	35.1	962.29	Good	2,861.59	26.90	2.97	366.01	26.74	6,285.0	YES	NO
1105	Northern red oak	14.0	35.1	962.29	Good	3,307.53	53.97	3.44	674.66	66.20	5,576.0	YES	NO
1106	Northern red oak	15.0	35.1	962.29	Good	3,307.53	53.97	3.44	797.76	72.93	6,264.0	YES	NO
1107	Camphor tree	14.0	20.0	314.31	Fair	672.53	9.30	2.14	593.86	58.03	3,880.0	YES	NO
1108	Chinese pistache	5.0	9.8	50.59	Good	88.26	1.39	1.76	48.22	13.82	1,460.0	YES	NO
1109	Camphor tree	16.0	29.9	490.83	Fair	1,616.85	22.38	3.29	839.30	70.94	4,799.0	YES	NO
1110	Chinese pistache	17.0	29.9	707.19	Good	2,795.93	43.72	3.96	960.42	77.21	6,145.0	YES	NO
1111	Chinese pistache	17.0	29.9	707.19	Good	2,795.93	43.72	3.96	960.42	77.21	6,145.0	YES	NO
1112	Chinese pistache	21.0	55.1	1,963.34	Good	6,573.84	102.78	3.35	1,659.24	106.75	8,843.0	YES	NO
1113	Chinese pistache	21.0	55.1	1,963.34	Good	6,573.84	102.78	3.35	1,659.24	106.75	8,843.0	YES	NO
1114	Chinese pistache	21.0	55.1	1,963.34	Good	6,573.84	102.78	3.35	1,659.24	106.75	8,843.0	YES	NO
1117	Camphor tree	17.0	29.9	490.83	Fair	1,747.20	24.18	3.56	970.10	77.21	5,304.0	YES	NO
1118	Camphor tree	15.0	24.9	397.19	Fair	1,173.48	16.25	2.95	710.62	64.37	4,324.0	YES	NO
1119	Camphor tree	15.0	24.9	397.19	Fair	1,173.48	16.25	2.95	710.62	64.37	4,324.0	YES	NO
1120	London plane	12.0	24.9	397.19	Good	1,339.46	12.61	3.37	412.18	47.22	3,960.0	YES	NO
1121	Tulip tree	2.0	9.8	50.59	Good	174.48	2.12	3.47	4.78	3.77	237.0	YES	NO
1122	Tulip tree	2.0	9.8	50.59	Good	174.48	2.12	3.47	4.78	3.77	237.0	YES	NO
1123	London plane	20.0	24.9	397.19	Fair	1,339.46	12.61	3.37	1,407.59	96.36	8,006.0	YES	NO
1124	London plane	20.0	24.9	397.19	Fair	1,339.46	12.61	3.37	1,407.59	96.36	8,006.0	YES	NO
1128	Chinese pistache	30.0	44.9	1,104.38	Good	4,205.03	65.74	3.81	3,848.32	174.28	16,989.0	YES	NO
1132	Modesto ash	13.0	20.0	240.04	Fair	423.45	6.17	1.76	392.71	39.53	3,472.0	YES	NO
1133	English walnut	14.0	24.9	176.53	Fair	679.96	5.86	3.85	596.57	58.49	3,424.0	YES	NO
1134	London plane	13.0	24.9	397.19	Fair	863.16	8.11	2.17	499.37	29.26	3,866.0	YES	NO
1135	London plane	25.0	55.1	1,963.34	Good	11,616.09	109.28	5.92	2,516.55	136.14	13,946.0	YES	NO
1136	London plane	25.0	55.1	1,963.34	Good	11,616.09	109.28	5.92	2,516.55	136.14	13,946.0	YES	NO
1137	London plane	25.0	55.1	1,963.34	Good	11,616.09	109.28	5.92	2,516.55	136.14	13,946.0	YES	NO
1138	London plane	20.0	40.0	962.29	Good	5,782.91	54.41	6.01	1,442.97	98.08	9,275.0	YES	NO
1139	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1140	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1141	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1142	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1143	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1144	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1145	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1146	London plane	20.0	40.0	962.29	Good	5,782.91	54.41	6.01	1,442.97	98.08	9,275.0	YES	NO
1147	London plane	20.0	40.0	962.29	Good	5,782.91	54.41	6.01	1,442.97	98.08	9,275.0	YES	NO
1148	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1149	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1150	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1151	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1152	London plane	20.0	40.0	962.29	Good	5,782.91	54.41	6.01	1,442.97	98.08	9,275.0	YES	NO
1153	London plane	20.0	40.0	962.29	Good	5,782.91	54.41	6.01	1,442.97	98.08	9,275.0	YES	NO
1154	London plane	20.0	40.0	962.29	Good	5,782.91	54.41	6.01	1,442.97	98.08	9,275.0	YES	NO
1155	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1156	London plane	16.0	35.1	962.29	Good	5,389.81	50.71	5.6	838.24	71.43	6,285.0	YES	NO
1157	Modesto ash	13.0	20.0	240.04	Poor	460.59	6.72	1.91	392.71	29.83	2,625.0	YES	NO
1158	Modesto ash	15.0	35.1	962.29	Poor	2,648.03	38.60	2.75	585.72	37.74	3,276.0	YES	NO
1160	Modesto ash	18.0	29.9	707.19	Fair	2,518.54	36.73	3.56	858.30	61.66	5,853.0	YES	NO
1161	Modesto ash	12.0	29.9	707.19	Fair	1,977.22	28.84	2.8	348.51	20.68	3,088.0	YES	NO
1162	Sweetgum	5.0	15.1	122.71	Poor	289.12	2.71	2.36	22.86	3.99	972.0	YES	NO
1163	Sweetgum	5.0	15.1	122.71	Poor	289.12	2.71	2.36	22.86	3.99	972.0	YES	NO
1164	Sweetgum	5.0	15.1	122.71	Poor	289.12	2.71	2.36	22.86	3.99	972.0	YES	NO
1165	London plane	24.0	29.9	707.19	Good	2,466.98	23.21	3.49	2,202.66	125.35	12,929.0	YES	NO
1166	California palm	25.0	24.9	78.58	Good	554.66	17.55	7.06	21.98	0.82	588.0	YES	YES
1167	Sweetgum	10.0	24.9	397.19	Fair	1,328.48	12.50	3.34	119.98	13.89	2,630.0	YES	NO
1168	Sweetgum	8.0	20.0	240.04	Fair	609.13	5.73	2.53	66.84	9.74	1,984.0	YES	NO
1169	Sweetgum	3.0	15.1	122.71	Fair	289.12	2.71	2.36	9.37	3.55	460.0	YES	NO
1170	Sweetgum	20.0	55.1	1,963.34	Fair	7,857.98	73.88	4	802.39	45.13	8,006.0	YES	NO
1171	Cherry plum	8.0	15.1	122.71	Poor	217.32	2.71	1.77	183.95	24.32	1,404.0	YES	NO
1177	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1178	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1179	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1180	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1181	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1182	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1185	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1186	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1187	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1188	Sweetgum	12.0	24.9	397.19	Good	1,166.48	10.98	2.93	164.99	16.31	3,960.0	YES	NO
1189	Sweetgum	12.0	35.1	962.29	Good	3,075.14	28.92	3.2	221.39	20.79	3,960.0	YES	NO
1190	Sweetgum	12.0	35.1	962.29	Good	3,075.14	28.92	3.2	221.39	20.79	3,960.0	YES	NO
1191	Sweetgum	12.0	35.1	962.29	Good	3,075.14	28.92	3.2	221.39	20.79	3,960.0	YES	NO
1192	Sweetgum	12.0	35.1	962.29	Good	3,075.14	28.92	3.2	221.39	20.79	3,960.0	YES	NO
1193	Sweetgum	12.0	35.1	962.29	Good	3,075.14	28.92	3.2	221.39	20.79	3,960.0	YES	NO
1194	Chinese hackberry	8.0	15.1	176.53	Good	695.03	8.40	3.93	151.70	26.50	2,152.0	YES	NO
1195	Sweetgum	12.0	20.0	240.04	Good	609.13	5.73	2.53	135.76	14.02	3,960.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1196	Modesto ash	12.0	29.9	707.19	Good	2,354.93	34.35	3.33	348.51	37.28	3,578.0	YES	NO
1197	Chinese pistache	17.0	29.9	707.19	Good	3,184.29	49.78	4.5	960.42	77.21	6,145.0	YES	NO
1198	Chinese pistache	10.0	20.0	240.04	Good	723.23	11.31	3.01	262.92	36.40	2,791.0	YES	NO
1199	Chinese pistache	10.0	20.0	240.04	Good	723.23	11.31	3.01	262.92	36.40	2,791.0	YES	NO
1200	Chinese pistache	10.0	20.0	240.04	Good	723.23	11.31	3.01	262.92	36.40	2,791.0	YES	NO
1201	Chinese pistache	10.0	20.0	240.04	Good	723.23	11.31	3.01	262.92	36.40	2,791.0	YES	NO
1202	Common crapemyrtle	2.0	9.8	50.59	Good	119.26	1.83	2.37	5.45	4.25	202.0	YES	NO
1203	Common crapemyrtle	2.0	9.8	50.59	Good	119.26	1.83	2.37	5.45	4.25	202.0	YES	NO
1204	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1205	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1206	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1207	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1208	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1209	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1210	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1211	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1212	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1213	London plane	15.0	24.9	397.19	Good	1,457.00	13.71	3.66	704.13	64.37	5,642.0	YES	NO
1214	Sweetgum	14.0	29.9	707.19	Good	2,518.54	23.68	3.56	253.31	21.30	5,039.0	YES	NO
1215	Sweetgum	14.0	29.9	707.19	Good	2,518.54	23.68	3.56	253.31	21.30	5,039.0	YES	NO
1216	Sweetgum	14.0	29.9	707.19	Good	2,518.54	23.68	3.56	253.31	21.30	5,039.0	YES	NO
1217	Sweetgum	14.0	29.9	707.19	Good	2,518.54	23.68	3.56	253.31	21.30	5,039.0	YES	NO
1219	Tulip tree	14.0	20.0	240.04	Good	727.96	8.80	3.03	506.53	48.99	5,039.0	YES	NO
1220	Tulip tree	14.0	20.0	240.04	Good	727.96	8.80	3.03	506.53	48.99	5,039.0	YES	NO
1221	Tulip tree	14.0	20.0	240.04	Good	727.96	8.80	3.03	506.53	48.99	5,039.0	YES	NO
1222	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1223	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1224	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1225	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1226	Northern red oak	9.0	15.1	122.71	Good	289.76	4.72	2.36	230.63	35.76	2,847.0	YES	NO
1228	Northern red oak	9.0	15.1	122.71	Good	289.76	4.72	2.36	230.63	35.76	2,847.0	YES	NO
1229	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1230	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1232	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1233	Modesto ash	21.0	24.9	397.19	Fair	842.49	12.28	2.12	1,186.75	73.85	7,650.0	YES	NO
1234	Modesto ash	18.0	24.9	397.19	Fair	842.49	12.28	2.12	838.51	60.69	5,853.0	YES	NO
1236	Common crapemyrtle	7.8	15.1	122.71	Good	350.69	5.38	2.86	143.21	25.64	2,099.0	YES	NO
1244	London plane	19.0	20.0	240.04	Fair	560.26	5.27	2.33	1,232.69	89.09	7,307.0	YES	NO
1249	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1250	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1251	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1252	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1253	Ginkgo	10.0	24.9	397.19	Good	1,331.17	12.02	3.35	266.45	36.73	2,795.0	YES	NO
1254	Ginkgo	16.0	24.9	397.19	Good	1,331.17	12.02	3.35	822.32	70.46	5,571.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1255	Ginkgo	16.0	24.9	397.19	Good	1,331.17	12.02	3.35	822.32	70.46	5,571.0	YES	NO
1256	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1257	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1259	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1260	Northern red oak	9.0	15.1	122.71	Good	289.76	4.72	2.36	230.63	35.76	2,847.0	YES	NO
1261	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1262	Northern red oak	9.0	15.1	122.71	Good	289.76	4.72	2.36	230.63	35.76	2,847.0	YES	NO
1263	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1264	Callery pear	8.0	20.0	240.04	Good	576.41	8.84	2.4	154.13	26.81	2,152.0	YES	NO
1265	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1266	Norway maple	9.0	15.1	78.58	Good	293.64	3.24	3.74	209.37	30.34	2,262.0	YES	NO
1267	Camphor tree	21.0	35.1	707.19	Fair	2,682.80	37.13	3.8	1,624.23	104.43	7,633.0	YES	NO
1268	Camphor tree	22.1	24.9	397.19	Fair	1,173.48	16.25	2.95	1,795.80	110.89	8,353.0	YES	NO
1269	Camphor tree	14.0	24.9	397.19	Fair	1,173.48	16.25	2.95	603.07	58.49	3,880.0	YES	NO
1270	Camphor tree	18.0	29.9	490.83	Fair	1,747.20	24.18	3.56	1,111.48	83.64	5,840.0	YES	NO
1271	Scarlet oak	14.0	24.9	397.19	Fair	888.45	13.25	2.23	674.77	68.14	5,275.0	YES	NO
1273	White mulberry	20.0	24.9	397.19	Fair	1,173.48	17.57	2.95	1,407.59	96.36	7,005.0	YES	NO
1274	Northern catalpa	19.0	20.0	397.19	Fair	536.58	6.68	1.35	1,232.69	89.09	4,651.0	YES	NO
1276	London plane	19.0	24.9	397.19	Fair	1,574.54	14.82	3.96	1,243.83	89.66	7,307.0	YES	NO
1277	California palm	7.0	4.9	12.92	Fair	31.11	0.99	2.48	0.53	0.04	324.0	YES	YES
1283	London plane	31.0	60.0	2,375.60	Fair	12,439.85	117.02	5.24	4,238.78	184.88	17,707.0	YES	NO
1284	London plane	20.0	55.1	1,963.34	Fair	8,278.09	77.89	4.22	1,477.01	99.76	8,006.0	YES	NO
1285	London plane	17.0	24.9	397.19	Fair	587.71	5.53	1.48	951.47	42.66	6,016.0	YES	NO
1286	Chinese pistache	6.0	9.8	50.59	Poor	88.26	1.39	1.76	74.67	13.23	1,080.0	YES	NO
1287	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1288	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1289	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1290	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1291	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1292	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1293	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1294	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1295	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1296	Common crapemyrtle	4.6	9.8	50.59	Good	112.81	1.72	2.24	39.13	12.32	1,389.0	YES	NO
1298	London plane	20.0	35.1	962.29	Fair	4,770.35	44.89	4.96	1,431.35	97.53	8,006.0	YES	NO
1299	Callery pear	6.0	15.1	122.71	Good	273.62	4.19	2.23	76.17	17.92	1,655.0	YES	NO
1300	Callery pear	6.0	15.1	122.71	Good	273.62	4.19	2.23	76.17	17.92	1,655.0	YES	NO
1301	Sweetgum	12.0	29.9	707.19	Fair	2,682.04	25.22	3.79	193.48	18.58	3,418.0	YES	NO
1302	Sweetgum	12.0	29.9	707.19	Fair	2,682.04	25.22	3.79	193.48	18.58	3,418.0	YES	NO
1307	Scarlet oak	11.0	24.9	397.19	Fair	689.54	10.30	1.73	369.52	47.88	3,547.0	YES	NO
1308	Scarlet oak	11.0	24.9	397.19	Fair	689.54	10.30	1.73	369.52	47.88	3,547.0	YES	NO
1309	Scarlet oak	11.0	24.9	397.19	Fair	689.54	10.30	1.73	369.52	47.88	3,547.0	YES	NO
1310	Callery pear	20.0	29.9	707.19	Good	2,246.21	34.46	3.18	1,419.58	96.96	8,115.0	YES	NO
1311	Common crapemyrtle	5.0	15.1	122.71	Good	350.69	5.38	2.86	49.30	14.04	1,460.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1314	Cherry plum	8.8	15.1	122.71	Good	350.69	4.37	2.86	230.45	36.80	2,383.0	YES	NO
1315	Cherry plum	8.8	15.1	122.71	Good	350.69	4.37	2.86	230.45	36.80	2,383.0	YES	NO
1316	Cherry plum	8.8	15.1	122.71	Good	350.69	4.37	2.86	230.45	36.80	2,383.0	YES	NO
1318	Japanese zelkova	12.0	24.9	397.19	Good	1,112.67	17.06	2.8	412.18	47.22	3,960.0	YES	NO
1319	Japanese zelkova	12.0	24.9	397.19	Good	1,112.67	17.06	2.8	412.18	47.22	3,960.0	YES	NO
1320	London plane	20.0	24.9	397.19	Fair	954.97	8.99	2.4	1,407.59	53.68	8,006.0	YES	NO
1321	London plane	21.0	49.9	1,590.91	Fair	3,894.60	36.64	2.45	1,646.96	59.17	8,740.0	YES	NO
1322	London plane	21.0	49.9	1,590.91	Fair	3,894.60	36.64	2.45	1,646.96	59.17	8,740.0	YES	NO
1323	London plane	20.0	24.9	397.19	Fair	954.97	8.99	2.4	1,407.59	53.68	8,006.0	YES	NO
1324	Sweetgum	6.0	24.9	397.19	Good	1,247.54	11.73	3.14	49.14	9.06	1,718.0	YES	NO
1325	Camphor tree	14.0	29.9	490.83	Critical	1,030.21	14.26	2.1	608.59	13.60	1,751.0	YES	NO
1326	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1327	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1328	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1329	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1330	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1331	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1332	Common crapemyrtle	4.0	9.8	50.59	Good	119.26	1.83	2.37	28.26	10.30	1,300.0	YES	NO
1335	London plane	10.0	24.9	397.19	Good	1,927.06	18.12	4.85	266.45	36.73	3,046.0	YES	NO
1336	Modesto ash	5.0	20.0	240.04	Fair	564.78	8.25	2.35	47.29	6.75	1,260.0	YES	NO
1337	Ginkgo	2.0	9.8	50.59	Good	111.19	1.01	2.21	5.45	2.23	203.0	YES	NO
1338	Ginkgo	3.0	15.1	122.71	Good	297.41	2.69	2.42	14.68	3.86	457.0	YES	NO
1339	London plane	6.0	20.0	240.04	Good	883.50	8.31	3.67	77.62	18.17	1,718.0	YES	NO
1340	Ginkgo	2.0	9.8	50.59	Good	111.19	1.01	2.21	5.45	2.23	203.0	YES	NO
1341	Sweetgum	12.0	29.9	707.19	Good	2,354.93	22.13	3.33	193.48	18.58	3,960.0	YES	NO
1342	Modesto ash	18.0	24.9	397.19	Fair	923.44	13.47	2.32	838.51	60.69	5,853.0	YES	NO
1343	Modesto ash	20.0	24.9	397.19	Poor	761.44	11.11	1.92	1,063.05	52.51	5,308.0	YES	NO
1344	Modesto ash	18.0	35.1	962.29	Fair	2,434.47	35.49	2.53	877.59	62.63	5,853.0	YES	NO
1345	Tulip tree	20.0	40.0	962.29	Good	4,852.59	58.58	5.04	1,190.34	79.92	9,275.0	YES	NO
1346	Chinese pistache	20.0	40.0	962.29	Good	3,645.31	56.99	3.79	1,442.97	98.08	8,115.0	YES	NO
1347	Black locust	12.0	29.9	707.19	Good	2,192.18	24.16	3.1	416.96	47.62	2,814.0	YES	NO
1348	Scarlet oak	12.0	29.9	707.19	Good	1,927.60	28.77	2.73	459.20	54.37	4,724.0	YES	NO
1349	Scarlet oak	25.0	49.9	1,590.91	Good	2,557.07	38.16	1.61	2,870.24	160.28	17,563.0	YES	NO
1350	Chinese pistache	24.0	44.9	1,104.38	Good	4,478.00	70.02	4.05	2,251.10	127.29	11,239.0	YES	NO
1354	Chinese pistache	22.0	44.9	1,104.38	Good	3,658.87	57.21	3.31	1,827.24	112.70	9,606.0	YES	NO
1355	Chinese pistache	12.0	24.9	397.19	Fair	878.98	13.73	2.21	412.18	26.15	3,083.0	YES	NO
1356	Chinese pistache	15.0	29.9	707.19	Good	2,601.85	40.68	3.68	711.28	64.84	5,009.0	YES	NO
1357	Chinese pistache	18.0	35.1	962.29	Good	3,651.01	57.08	3.79	1,111.55	84.15	6,766.0	YES	NO
1358	Chinese pistache	18.0	35.1	962.29	Good	3,651.01	57.08	3.79	1,111.55	84.15	6,766.0	YES	NO
1359	Chinese pistache	18.0	35.1	962.29	Good	3,651.01	57.08	3.79	1,111.55	84.15	6,766.0	YES	NO
1360	Chinese pistache	18.0	35.1	962.29	Good	3,651.01	57.08	3.79	1,111.55	84.15	6,766.0	YES	NO
1362	Chinese pistache	18.0	35.1	962.29	Good	3,651.01	57.08	3.79	1,111.55	84.15	6,766.0	YES	NO
1363	Chinese pistache	18.0	35.1	962.29	Good	3,651.01	57.08	3.79	1,111.55	84.15	6,766.0	YES	NO
1364	London plane	22.0	49.9	1,590.91	Good	3,978.88	37.43	2.5	1,840.71	113.30	11,019.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1365	Chinese pistache	21.0	44.9	1,104.38	Good	4,205.03	65.74	3.81	1,634.57	105.60	8,843.0	YES	NO
1366	Chinese pistache	16.0	35.1	962.29	Good	3,904.61	61.05	4.06	838.24	71.43	5,560.0	YES	NO
1367	Chinese pistache	11.0	24.9	397.19	Good	1,288.76	20.15	3.24	334.66	41.87	3,164.0	YES	NO
1368	Chinese pistache	18.0	29.9	707.19	Good	2,601.85	40.68	3.68	1,101.80	83.64	6,766.0	YES	NO
1369	Chinese pistache	10.0	20.0	240.04	Good	590.94	9.24	2.46	262.92	36.40	2,791.0	YES	NO
1370	Deodar cedar	8.0	20.0	78.58	Good	243.69	7.83	3.1	82.52	5.47	2,444.0	YES	NO
1372	Sweetgum	8.0	20.0	240.04	Good	534.86	5.03	2.22	66.84	9.74	2,299.0	YES	NO
1373	Japanese zelkova	20.0	24.9	397.19	Fair	895.88	13.73	2.25	1,407.59	96.36	8,006.0	YES	NO
1374	Modesto ash	18.0	29.9	707.19	Fair	2,027.92	29.56	2.87	858.30	61.66	5,853.0	YES	NO
1375	Caucasian ash	19.0	35.1	829.90	Fair	2,902.70	42.33	3.5	989.81	67.00	7,307.0	YES	NO
1376	Caucasian ash	18.0	29.9	707.19	Fair	2,354.93	34.35	3.33	858.30	61.66	6,644.0	YES	NO
1377	Tulip tree	14.0	24.9	397.19	Fair	1,587.57	19.16	3.99	506.53	48.99	4,350.0	YES	NO
1378	Tulip tree	14.0	24.9	397.19	Fair	1,587.57	19.16	3.99	506.53	48.99	4,350.0	YES	NO
1382	Tulip tree	12.0	24.9	397.19	Fair	1,843.64	22.27	4.64	350.14	39.68	3,418.0	YES	NO
1383	Sweetgum	10.0	20.0	240.04	Fair	534.86	5.03	2.22	98.72	11.86	2,630.0	YES	NO
1384	Sweetgum	10.0	20.0	240.04	Fair	534.86	5.03	2.22	98.72	11.86	2,630.0	YES	NO
1385	Sweetgum	10.0	20.0	240.04	Fair	534.86	5.03	2.22	98.72	11.86	2,630.0	YES	NO
1386	Sweetgum	10.0	20.0	240.04	Fair	534.86	5.03	2.22	98.72	11.86	2,630.0	YES	NO
1387	Common crapemyrtle	3.0	9.8	50.59	Fair	93.43	1.43	1.86	14.24	7.08	393.0	YES	NO
1388	Common crapemyrtle	3.0	9.8	50.59	Fair	93.43	1.43	1.86	14.24	7.08	393.0	YES	NO
1389	Common crapemyrtle	3.0	9.8	50.59	Fair	93.43	1.43	1.86	14.24	7.08	393.0	YES	NO
1392	Tulip tree	12.0	24.9	397.19	Fair	1,843.64	22.27	4.64	350.14	39.68	3,418.0	YES	NO
1393	Tulip tree	12.0	24.9	397.19	Fair	1,843.64	22.27	4.64	350.14	39.68	3,418.0	YES	NO
1394	Tulip tree	18.0	29.9	707.19	Fair	3,722.05	44.93	5.27	924.82	69.14	6,644.0	YES	NO
1395	Sweetgum	18.0	29.9	707.19	Fair	2,354.93	22.13	3.33	393.00	26.79	6,644.0	YES	NO
1396	London plane	20.0	29.9	707.19	Fair	2,941.45	27.67	4.16	1,419.58	96.96	8,006.0	YES	NO
1397	London plane	20.0	29.9	707.19	Fair	2,941.45	27.67	4.16	1,419.58	96.96	8,006.0	YES	NO
1398	London plane	20.0	29.9	707.19	Fair	2,941.45	27.67	4.16	1,419.58	96.96	8,006.0	YES	NO
1399	London plane	20.0	29.9	707.19	Fair	2,941.45	27.67	4.16	1,419.58	96.96	8,006.0	YES	NO
1400	Caucasian ash	11.0	24.9	397.19	Fair	1,166.48	17.02	2.93	278.99	32.80	3,006.0	YES	NO
1401	Caucasian ash	11.0	24.9	397.19	Fair	1,166.48	17.02	2.93	278.99	32.80	3,006.0	YES	NO
1402	Caucasian ash	11.0	24.9	397.19	Fair	1,166.48	17.02	2.93	278.99	32.80	3,006.0	YES	NO
1403	Common crapemyrtle	3.0	9.8	50.59	Excellent	119.26	1.83	2.37	14.24	7.08	479.0	YES	NO
1404	English walnut	23.0	24.9	176.53	Poor	858.85	7.41	4.86	1,972.41	88.85	5,812.0	YES	NO
1406	Sweetgum	12.0	24.9	397.19	Fair	693.95	6.53	1.75	164.99	9.06	3,418.0	YES	NO
1407	Sweetgum	12.0	24.9	397.19	Fair	693.95	6.53	1.75	164.99	9.06	3,418.0	YES	NO
1408	Sweetgum	18.0	49.9	1,590.91	Good	2,933.60	27.58	1.84	614.12	38.38	7,697.0	YES	NO
1409	Sweetgum	18.0	49.9	1,590.91	Good	2,933.60	27.58	1.84	614.12	38.38	7,697.0	YES	NO
1414	Black locust	26.0	29.9	707.19	Fair	2,722.62	30.03	3.85	2,672.05	140.37	7,877.0	YES	NO
1415	Honeylocust	16.0	29.9	707.19	Fair	1,067.56	22.91	1.51	830.35	70.94	4,809.0	YES	NO
1416	Tulip tree	24.0	40.0	962.29	Good	5,576.89	67.33	5.8	1,842.25	102.76	12,929.0	YES	NO
1417	London plane	20.0	29.9	707.19	Fair	2,199.82	20.70	3.11	1,419.58	53.99	8,006.0	YES	NO
1418	London plane	20.0	29.9	707.19	Fair	2,199.82	20.70	3.11	1,419.58	53.99	8,006.0	YES	NO
1419	Scarlet oak	18.0	35.1	962.29	Fair	1,644.73	24.54	1.71	1,263.82	54.87	8,225.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1420	Scarlet oak	21.0	44.9	1,104.38	Good	2,899.04	43.25	2.62	1,857.15	123.83	12,652.0	YES	NO
1421	Common crapemyrtle	2.0	9.8	50.59	Good	119.26	1.83	2.37	5.45	4.25	202.0	YES	NO
1422	Common crapemyrtle	2.0	9.8	50.59	Good	119.26	1.83	2.37	5.45	4.25	202.0	YES	NO
1423	Common crapemyrtle	2.0	9.8	50.59	Good	119.26	1.83	2.37	5.45	4.25	202.0	YES	NO
1424	London plane	24.0	24.9	397.19	Fair	1,339.46	12.61	3.37	2,186.04	124.67	11,159.0	YES	NO
1425	London plane	20.0	24.9	397.19	Fair	1,339.46	12.61	3.37	1,407.59	96.36	8,006.0	YES	NO
1426	London plane	20.0	24.9	397.19	Fair	1,339.46	12.61	3.37	1,407.59	96.36	8,006.0	YES	NO
1427	London plane	20.0	24.9	397.19	Fair	1,339.46	12.61	3.37	1,407.59	96.36	8,006.0	YES	NO
1428	London plane	20.0	24.9	397.19	Fair	1,339.46	12.61	3.37	1,407.59	96.36	8,006.0	YES	NO
1431	Caucasian ash	20.0	20.0	240.04	Poor	423.45	6.17	1.76	1,038.64	51.70	6,053.0	YES	NO
1432	Caucasian ash	17.0	44.9	1,418.68	Good	3,290.64	47.97	2.32	806.83	60.12	5,576.0	NO	NO
1433	Glossy privet	21.0	35.1	962.29	Poor	3,324.33	61.91	3.46	1,634.13	79.01	4,617.0	NO	NO
1434	Caucasian ash	18.0	44.9	1,418.68	Good	3,290.64	47.97	2.32	914.90	64.49	6,157.0	NO	NO
1435	Glossy privet	21.0	35.1	962.29	Fair	3,324.33	61.91	3.46	1,634.13	104.43	6,106.0	NO	NO
1436	Glossy privet	16.0	24.9	397.19	Fair	1,260.99	23.48	3.17	831.72	70.46	3,839.0	NO	NO
1437	Glossy privet	18.0	24.9	397.19	Good	1,260.99	23.48	3.17	1,101.28	83.09	5,413.0	NO	NO
1438	Chinese pistache	16.0	24.9	397.19	Good	1,673.47	26.17	4.21	822.32	70.46	4,448.0	NO	NO
1439	Chinese pistache	13.0	24.9	397.19	Good	1,673.47	26.17	4.21	499.37	52.76	3,212.0	NO	NO
1440	Chinese pistache	10.0	20.0	240.04	Good	767.25	11.99	3.19	262.92	36.40	2,233.0	NO	NO
1441	Caucasian ash	13.0	35.1	829.90	Fair	2,701.10	39.40	3.26	427.17	41.91	3,093.0	NO	NO
1442	Callery pear	7.2	20.0	240.04	Good	510.10	7.83	2.12	120.28	23.28	1,551.0	NO	NO
1443	Callery pear	7.2	20.0	240.04	Good	510.10	7.83	2.12	120.28	23.28	1,551.0	NO	NO
1444	Chinese pistache	12.0	24.9	397.19	Good	1,673.47	26.17	4.21	412.18	47.22	2,857.0	NO	NO
1445	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1446	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1447	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1448	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1449	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1450	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1451	California palm	12.0	29.9	78.58	Good	779.52	24.65	9.93	34.79	1.12	470.0	NO	YES
1452	California palm	28.0	65.0	78.58	Good	780.38	24.69	9.94	251.75	5.05	713.0	NO	YES
1453	California palm	28.0	60.0	78.58	Good	780.38	24.69	9.94	201.46	4.32	591.0	NO	YES
1454	California palm	16.0	49.9	78.58	Good	779.52	24.65	9.93	122.53	3.06	591.0	NO	YES
1455	California palm	16.0	40.0	78.58	Good	779.52	24.65	9.93	68.70	2.01	470.0	NO	YES
1456	California palm	18.0	55.1	78.58	Good	780.38	24.69	9.94	158.58	3.66	591.0	NO	YES
1457	Green indian laurel fig	12.7	15.1	122.71	Good	236.38	3.62	1.93	465.11	50.40	3,113.0	NO	NO
1458	apple spp	8.0	9.8	50.59	Good	95.48	1.68	1.9	149.19	26.19	1,722.0	NO	NO
1459	Sweetgum	11.0	24.9	397.19	Good	1,166.48	10.98	2.93	141.71	15.10	3,482.0	YES	NO
1460	Chinese pistache	7.0	15.1	122.71	Good	364.25	5.69	2.97	110.14	22.09	1,886.0	YES	NO
1463	Sweetgum	12.0	24.9	397.19	Good	1,085.54	10.21	2.73	164.99	16.31	3,960.0	YES	NO
1464	Sweetgum	10.0	24.9	397.19	Good	1,085.54	10.21	2.73	119.98	13.89	3,046.0	YES	NO
1465	Sweetgum	10.0	24.9	397.19	Good	1,085.54	10.21	2.73	119.98	13.89	3,046.0	YES	NO
1466	Sweetgum	10.0	24.9	397.19	Good	1,085.54	10.21	2.73	119.98	13.89	3,046.0	YES	NO
1467	Tulip tree	18.0	29.9	707.19	Good	3,463.50	41.82	4.9	924.82	69.14	7,697.0	YES	NO

Tree ID	Species Name	DBH (inch)	Height (ft)	Ground Area (ft2)	Tree Condition	Leaf Area (ft2)	Leaf Biomass (lb)	Leaf Area Index	Carbon Storage (lb)	Gross Carbon Seq (lb/year)	Structural Tree Value ($)	Street Tree	Native To State
1468	Tulip tree	18.0	29.9	707.19	Good	3,463.50	41.82	4.9	924.82	69.14	7,697.0	YES	NO
1469	Chinese pistache	12.0	29.9	707.19	Good	2,601.85	40.68	3.68	416.96	47.62	3,572.0	YES	NO
1470	Chinese pistache	12.0	29.9	707.19	Good	2,601.85	40.68	3.68	416.96	47.62	3,572.0	YES	NO
1471	Chinese pistache	12.0	29.9	707.19	Good	2,601.85	40.68	3.68	416.96	47.62	3,572.0	YES	NO
1472	Chinese pistache	12.0	29.9	707.19	Good	2,601.85	40.68	3.68	416.96	47.62	3,572.0	YES	NO
1474	Tulip tree	14.0	35.1	962.29	Good	4,860.23	58.69	5.05	506.53	48.99	5,039.0	YES	NO
1476	Tulip tree	12.0	24.9	397.19	Fair	1,843.64	22.27	4.64	350.14	39.68	3,418.0	YES	NO
1478	Chinese pistache	23.0	35.1	962.29	Good	3,397.52	53.11	3.53	2,002.97	118.67	10,405.0	YES	NO
1479	Chinese pistache	14.0	24.9	397.19	Good	956.05	14.95	2.4	596.57	32.45	4,495.0	YES	NO
1480	Chinese pistache	18.0	35.1	962.29	Good	3,397.52	53.11	3.53	1,111.55	84.15	6,766.0	YES	NO
	TOTAL			518,481		1,762,829	21,919		533,694	37,127	3,769,301		

Individual Tree Avoided Runoff in Redding Downtown Core Street Trees

Series: Street Trees, Time Period: 2017

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
92	Tulip tree	8.0	15.09	Good	401.28	3.19	0.21
116	Tulip tree	14.0	35.10	Good	4,185.22	33.27	2.22
119	London plane	20.0	49.87	Good	4,255.19	33.83	2.25
124	Tulip tree	18.0	49.87	Good	4,335.49	34.47	2.29
125	Sweetgum	22.0	60.04	Good	7,322.37	58.21	3.88
144	Southern magnolia	5.0	15.09	Good	255.43	2.91	0.19
225	apple spp	4.0	9.84	Critical	118.51	0.94	0.06
255	Scarlet oak	17.0	49.87	Good	2,713.04	21.57	1.44
258	Scarlet oak	16.0	55.12	Good	6,491.28	51.60	3.44
261	Sweetgum	11.0	35.10	Good	3,502.25	27.84	1.85
269	Northern red oak	14.0	29.86	Good	2,532.86	20.14	1.34
294	Scarlet oak	27.0	40.03	Fair	1,950.53	15.51	1.03
296	Chinese pistache	28.0	49.87	Good	6,251.79	49.70	3.31
393	Caucasian ash	8.0	20.01	Fair	609.13	4.84	0.32
428	Common crapemyrtle	3.0	9.84	Good	61.78	0.49	0.03
444	Sweetgum	17.0	44.95	Good	3,939.05	31.31	2.08
455	Scarlet oak	15.0	44.95	Good	2,522.52	20.05	1.34
478	London plane	15.0	24.93	Fair	1,222.03	9.71	0.65
479	London plane	17.0	35.10	Fair	4,150.78	33.00	2.20
481	Japanese zelkova	18.0	40.03	Good	2,849.85	22.66	1.51
484	Sweetgum	21.0	64.96	Good	6,912.05	54.95	3.66
485	Sweetgum	25.0	69.88	Good	6,912.05	54.95	3.66
486	Scarlet oak	25.0	64.96	Good	4,392.11	34.92	2.32
487	Sweetgum	19.0	55.12	Good	4,023.55	31.99	2.13
488	Camphor tree	14.0	29.86	Fair	725.16	8.25	0.55
498	Chinese pistache	21.0	55.12	Good	6,573.84	52.26	3.48
571	Quercus wislizeni	13.0	20.01	Good	376.95	4.29	0.29
572	London plane	12.0	20.01	Fair	582.11	4.63	0.31
573	Quercus ilex	10.0	15.09	Fair	179.00	2.04	0.14
576	Tulip tree	18.0	40.03	Fair	5,535.34	44.01	2.93
577	Quercus suber	22.0	29.86	Poor	683.94	7.78	0.52
581	Sweetgum	16.0	40.03	Good	3,403.98	27.06	1.80
584	Scarlet oak	19.0	44.95	Good	2,710.78	21.55	1.43
602	Sweetgum	17.0	44.95	Good	3,771.78	29.99	2.00
610	Sweetgum	18.0	55.12	Good	7,406.32	58.88	3.92
616	Scarlet oak	23.0	64.96	Good	7,406.32	58.88	3.92
622	Scarlet oak	19.0	44.95	Good	2,782.26	22.12	1.47
642	Scarlet oak	20.0	49.87	Good	2,692.16	21.40	1.42
643	Scarlet oak	19.0	49.87	Good	2,655.03	21.11	1.41
644	Camphor tree	29.0	64.96	Good	7,368.22	83.84	5.58
645	Camphor tree	17.0	40.03	Fair	2,400.89	27.32	1.82
647	Sweetgum	9.0	24.93	Good	448.32	3.56	0.24
648	Sweetgum	8.0	24.93	Good	255.97	2.03	0.14
649	London plane	20.0	24.93	Fair	698.69	5.55	0.37
650	Scarlet oak	16.0	35.10	Good	1,694.35	13.47	0.90
651	Scarlet oak	26.0	49.87	Fair	1,933.41	15.37	1.02
653	Scarlet oak	24.0	55.12	Good	7,618.80	60.57	4.03
654	Sweetgum	16.0	49.87	Excellent	3,228.42	25.67	1.71
658	Sweetgum	14.0	49.87	Excellent	3,228.42	25.67	1.71
659	Sweetgum	16.0	49.87	Fair	2,780.00	22.10	1.47
660	Japanese zelkova	25.0	44.95	Good	3,079.45	24.48	1.63
661	Japanese zelkova	23.0	40.03	Good	6,557.27	52.13	3.47
662	Japanese zelkova	11.0	20.01	Fair	462.20	3.67	0.24
663	Scarlet oak	22.0	49.87	Good	5,347.08	42.51	2.83
664	Scarlet oak	20.0	60.04	Good	4,345.93	34.55	2.30
665	Scarlet oak	22.0	60.04	Good	7,987.58	63.50	4.23
666	Scarlet oak	19.0	35.10	Poor	1,874.64	14.90	0.99
667	Scarlet oak	14.0	29.86	Fair	1,856.02	14.76	0.98

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
668	Japanese zelkova	21.0	29.86	Good	2,434.69	19.36	1.29
669	Japanese zelkova	22.0	29.86	Good	2,434.69	19.36	1.29
670	Sweetgum	13.0	44.95	Poor	2,629.73	20.91	1.39
676	Sweetgum	15.0	44.95	Good	3,939.05	31.31	2.08
677	Sweetgum	16.0	44.95	Good	3,939.05	31.31	2.08
679	Quercus suber	26.0	49.87	Good	6,491.28	73.87	4.92
681	Sweetgum	16.0	49.87	Good	3,517.54	27.96	1.86
683	Sweetgum	21.0	69.88	Good	7,042.40	55.99	3.73
690	Scarlet oak	26.0	44.95	Good	2,899.04	23.05	1.53
692	Scarlet oak	23.0	44.95	Good	3,087.20	24.54	1.63
695	Scarlet oak	20.0	55.12	Good	6,864.36	54.57	3.63
696	Scarlet oak	17.0	44.95	Good	3,463.72	27.54	1.83
697	Caucasian ash	14.0	29.86	Good	2,682.04	21.32	1.42
698	Caucasian ash	18.0	35.10	Good	2,648.03	21.05	1.40
699	London plane	8.0	29.86	Good	3,890.29	30.93	2.06
700	London plane	7.0	29.86	Good	3,890.29	30.93	2.06
701	London plane	9.2	29.86	Good	3,890.29	30.93	2.06
702	Camphor tree	29.0	55.12	Fair	4,822.34	54.87	3.65
703	Camphor tree	22.7	55.12	Fair	4,499.85	51.20	3.41
704	Camphor tree	26.0	40.03	Good	2,358.70	26.84	1.79
705	Camphor tree	15.0	20.01	Good	672.53	7.65	0.51
706	Camphor tree	30.0	40.03	Fair	3,071.37	34.95	2.33
707	Camphor tree	25.0	49.87	Good	2,965.35	33.74	2.25
709	Scarlet oak	14.0	44.95	Good	1,657.97	13.18	0.88
710	Scarlet oak	20.0	49.87	Good	2,401.21	19.09	1.27
711	Scarlet oak	16.0	40.03	Fair	2,513.16	19.98	1.33
712	Japanese zelkova	15.0	29.86	Good	1,808.66	14.38	0.96
713	Scarlet oak	19.0	60.04	Good	8,305.97	66.03	4.40
714	Scarlet oak	20.0	60.04	Good	8,305.97	66.03	4.40
715	Scarlet oak	18.0	49.87	Good	2,245.24	17.85	1.19
716	Scarlet oak	17.0	35.10	Good	2,517.03	20.01	1.33
718	London plane	17.0	44.95	Good	4,803.72	38.19	2.54
719	London plane	20.0	49.87	Good	4,807.81	38.22	2.54
720	London plane	23.0	49.87	Good	4,807.81	38.22	2.54
722	Tulip tree	19.0	55.12	Good	12,299.38	97.78	6.51
723	Tulip tree	21.0	55.12	Good	12,299.38	97.78	6.51
724	Tulip tree	24.0	55.12	Good	12,299.38	97.78	6.51
725	Tulip tree	28.0	55.12	Good	12,299.38	97.78	6.51
726	Scarlet oak	25.0	60.04	Good	7,854.53	62.44	4.16
727	Common crapemyrtle	8.0	24.93	Good	1,348.61	10.72	0.71
728	Common crapemyrtle	8.0	24.93	Good	1,025.48	8.15	0.54
729	Common crapemyrtle	6.0	20.01	Good	344.66	2.74	0.18
730	Scarlet oak	22.0	60.04	Good	7,854.53	62.44	4.16
731	Scarlet oak	24.0	64.96	Good	6,198.72	49.28	3.28
732	Scarlet oak	23.0	64.96	Good	7,174.58	57.04	3.80
734	London plane	32.0	69.88	Fair	20,759.39	165.03	10.99
735	Callery pear	4.0	20.01	Good	642.61	5.11	0.34
736	Callery pear	4.0	15.09	Good	305.05	2.43	0.16
737	Callery pear	8.0	24.93	Good	1,401.57	11.14	0.74
738	Callery pear	8.0	24.93	Good	1,401.57	11.14	0.74
740	Caucasian ash	12.0	20.01	Poor	386.32	3.07	0.20
741	Caucasian ash	9.0	20.01	Poor	386.32	3.07	0.20
742	London plane	24.0	35.10	Fair	4,460.56	35.46	2.36
743	Callery pear	6.0	20.01	Good	642.61	5.11	0.34
744	Callery pear	6.0	20.01	Good	642.61	5.11	0.34
745	Callery pear	3.0	15.09	Good	305.05	2.43	0.16
746	Callery pear	3.0	15.09	Good	305.05	2.43	0.16
747	Callery pear	3.0	15.09	Good	305.05	2.43	0.16
748	Callery pear	3.0	15.09	Good	305.05	2.43	0.16
749	Callery pear	3.0	15.09	Good	305.05	2.43	0.16
750	Camphor tree	2.0	9.84	Good	132.93	1.51	0.10

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
751	Camphor tree	16.3	24.93	Fair	1,173.48	13.35	0.89
752	Camphor tree	17.0	29.86	Fair	1,616.85	18.40	1.22
753	Camphor tree	13.0	29.86	Fair	1,616.85	18.40	1.22
754	Camphor tree	14.0	29.86	Fair	1,616.85	18.40	1.22
755	Camphor tree	18.0	35.10	Fair	2,482.59	28.25	1.88
756	Camphor tree	18.0	35.10	Fair	2,883.01	32.81	2.18
757	Camphor tree	14.0	35.10	Poor	2,482.59	28.25	1.88
758	Callery pear	5.0	20.01	Good	576.41	4.58	0.31
759	Camphor tree	14.0	29.86	Fair	633.99	7.21	0.48
760	Camphor tree	10.0	20.01	Fair	347.14	3.95	0.26
761	Camphor tree	8.0	9.84	Poor	19.48	0.22	0.01
762	Sweetgum	11.0	35.10	Good	3,502.25	27.84	1.85
763	Sweetgum	11.0	35.10	Good	3,502.25	27.84	1.85
764	Sweetgum	19.0	55.12	Good	7,406.32	58.88	3.92
765	Sweetgum	19.0	64.96	Good	8,199.62	65.19	4.34
766	Sweetgum	12.0	44.95	Good	3,311.73	26.33	1.75
767	Sweetgum	11.0	49.87	Good	2,743.07	21.81	1.45
768	Common crapemyrtle	4.0	15.09	Good	274.48	2.18	0.15
769	Sweetgum	13.0	49.87	Good	3,314.53	26.35	1.75
770	Scarlet oak	16.0	29.86	Fair	1,526.00	12.13	0.81
771	Scarlet oak	15.0	55.12	Fair	4,999.08	39.74	2.65
772	Sweetgum	17.0	49.87	Good	3,314.53	26.35	1.75
773	Sweetgum	12.0	44.95	Good	4,001.70	31.81	2.12
774	Sweetgum	12.0	44.95	Good	3,541.76	28.16	1.87
775	Sweetgum	16.0	55.12	Good	6,954.67	55.29	3.68
776	Sweetgum	17.0	60.04	Good	8,415.23	66.90	4.45
777	Sweetgum	15.0	49.87	Good	2,552.55	20.29	1.35
778	Sweetgum	13.0	44.95	Good	3,541.76	28.16	1.87
779	Sweetgum	17.0	55.12	Good	7,406.32	58.88	3.92
780	Sweetgum	21.0	69.88	Good	5,840.07	46.43	3.09
782	Sweetgum	17.0	49.87	Good	2,743.07	21.81	1.45
783	Sweetgum	9.0	29.86	Good	2,518.54	20.02	1.33
784	Sweetgum	21.0	60.04	Good	7,868.74	62.56	4.16
785	Sweetgum	20.0	60.04	Good	7,868.74	62.56	4.16
786	Sweetgum	16.0	49.87	Good	2,362.14	18.78	1.25
787	Sweetgum	19.0	60.04	Good	8,415.23	66.90	4.45
788	Camphor tree	32.0	49.87	Good	3,171.26	36.09	2.40
789	Camphor tree	21.0	49.87	Good	3,171.26	36.09	2.40
790	Scarlet oak	19.0	35.10	Fair	1,468.31	11.67	0.78
791	Scarlet oak	12.0	35.10	Good	2,691.84	21.40	1.42
792	Scarlet oak	16.0	44.95	Good	3,087.20	24.54	1.63
793	Scarlet oak	18.0	55.12	Fair	5,372.16	42.71	2.84
794	Scarlet oak	20.0	55.12	Good	6,118.31	48.64	3.24
795	Scarlet oak	19.0	55.12	Good	6,118.31	48.64	3.24
798	London plane	19.0	35.10	Fair	3,531.21	28.07	1.87
799	London plane	28.0	44.95	Fair	4,470.14	35.54	2.37
800	London plane	23.0	49.87	Fair	3,624.10	28.81	1.92
801	London plane	20.0	55.12	Fair	6,164.38	49.01	3.26
802	London plane	29.0	64.96	Fair	10,178.78	80.92	5.39
806	Japanese zelkova	20.0	40.03	Good	3,351.34	26.64	1.77
807	Camphor tree	33.0	35.10	Fair	2,482.59	28.25	1.88
808	London plane	16.0	44.95	Fair	4,470.14	35.54	2.37
809	London plane	24.0	60.04	Fair	12,439.85	98.89	6.58
810	London plane	18.0	35.10	Fair	3,531.21	28.07	1.87
811	English walnut	14.0	20.01	Fair	394.82	3.14	0.21
814	Scarlet oak	11.0	40.03	Good	2,621.34	20.84	1.39
815	Scarlet oak	17.0	40.03	Fair	1,950.53	15.51	1.03
816	Scarlet oak	16.0	29.86	Fair	1,258.30	10.00	0.67
817	London plane	26.0	44.95	Fair	3,724.85	29.61	1.97
818	London plane	16.0	44.95	Fair	4,803.72	38.19	2.54
831	Tulip tree	20.0	49.87	Good	5,238.69	41.65	2.77

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
845	Tulip tree	20.0	55.12	Fair	10,178.78	80.92	5.39
846	Quercus suber	30.0	49.87	Fair	2,648.57	30.14	2.01
850	Japanese zelkova	19.0	35.10	Fair	2,361.71	18.78	1.25
852	Sweetgum	15.0	44.95	Good	2,704.86	21.50	1.43
853	Sweetgum	22.0	64.96	Good	6,785.89	53.95	3.59
856	Quercus suber	22.0	35.10	Good	2,167.53	24.66	1.64
857	Quercus suber	31.0	49.87	Good	2,401.21	27.32	1.82
858	Tulip tree	23.0	55.12	Good	11,592.52	92.16	6.14
859	London plane	17.0	40.03	Good	4,785.85	38.05	2.53
860	London plane	22.0	44.95	Good	5,137.29	40.84	2.72
862	Quercus ilex	20.0	24.93	Fair	954.76	10.86	0.72
863	Tulip tree	14.0	35.10	Fair	5,197.78	41.32	2.75
866	Sweetgum	13.0	40.03	Fair	2,852.11	22.67	1.51
867	Sweetgum	13.0	40.03	Fair	2,852.11	22.67	1.51
868	Sweetgum	17.0	55.12	Good	7,406.32	58.88	3.92
869	Sweetgum	15.0	55.12	Good	7,406.32	58.88	3.92
870	Callery pear	4.0	20.01	Good	609.56	4.85	0.32
871	Sweetgum	15.0	49.87	Good	2,882.04	22.91	1.53
872	Sweetgum	15.0	49.87	Good	2,882.04	22.91	1.53
873	Southern magnolia	11.7	20.01	Good	537.98	6.12	0.41
874	Southern magnolia	14.0	29.86	Good	2,369.03	26.96	1.79
875	Southern magnolia	11.0	24.93	Good	1,173.48	13.35	0.89
876	Southern magnolia	16.0	29.86	Good	2,369.03	26.96	1.79
877	Southern magnolia	16.0	29.86	Good	2,722.62	30.98	2.06
878	Common crapemyrtle	1.0	4.92	Poor	26.59	0.21	0.01
879	Flowering dogwood	6.0	24.93	Good	801.48	6.37	0.42
881	Flowering dogwood	8.0	24.93	Good	801.48	6.37	0.42
882	Common crapemyrtle	1.0	4.92	Poor	26.59	0.21	0.01
883	Common crapemyrtle	1.0	4.92	Poor	26.59	0.21	0.01
884	Flowering dogwood	8.0	24.93	Good	801.48	6.37	0.42
885	Common crapemyrtle	1.0	4.92	Poor	26.59	0.21	0.01
886	Common crapemyrtle	1.0	4.92	Good	26.59	0.21	0.01
887	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
888	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
889	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
890	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
891	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
892	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
893	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
894	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
895	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
896	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
897	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
898	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
899	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
900	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
901	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
903	Flowering dogwood	8.0	24.93	Good	801.48	6.37	0.42
904	Flowering dogwood	8.0	24.93	Good	801.48	6.37	0.42
905	Flowering dogwood	8.0	24.93	Good	801.48	6.37	0.42
906	Callery pear	6.0	24.93	Good	1,184.89	9.42	0.63
907	Callery pear	6.0	20.01	Good	443.90	3.53	0.23
908	Callery pear	7.0	24.93	Good	1,184.89	9.42	0.63
909	Callery pear	6.0	20.01	Good	443.90	3.53	0.23
910	Tulip tree	14.0	35.10	Good	4,185.22	33.27	2.22
911	Callery pear	6.0	20.01	Good	443.90	3.53	0.23
912	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
913	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
914	Callery pear	7.0	24.93	Good	968.11	7.70	0.51
915	Tulip tree	17.0	49.87	Good	4,636.55	36.86	2.45
916	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
917	London plane	19.0	40.03	Good	4,785.85	38.05	2.53
918	London plane	21.0	29.86	Fair	2,704.22	21.50	1.43
919	Callery pear	5.0	20.01	Good	543.25	4.32	0.29
921	Scarlet oak	18.0	49.87	Good	2,401.21	19.09	1.27
922	Scarlet oak	20.0	55.12	Good	5,745.24	45.67	3.04
923	Sweetgum	13.0	35.10	Fair	2,648.03	21.05	1.40
924	Sweetgum	13.0	40.03	Good	3,299.46	26.23	1.75
927	Callery pear	1.0	5.91	Fair	42.19	0.34	0.02
928	Common crapemyrtle	1.0	6.89	Fair	47.04	0.37	0.02
929	Common crapemyrtle	1.0	6.89	Fair	47.04	0.37	0.02
930	Common crapemyrtle	1.0	6.89	Fair	47.04	0.37	0.02
931	Northern red oak	10.0	35.10	Good	2,661.59	21.16	1.41
932	Northern red oak	8.0	24.93	Good	1,043.78	8.30	0.55
933	Callery pear	13.7	40.03	Good	2,533.93	20.14	1.34
934	Callery pear	11.0	35.10	Good	2,361.71	18.78	1.25
935	Northern red oak	8.0	29.86	Good	2,532.86	20.14	1.34
936	Callery pear	9.0	24.93	Good	1,040.33	8.27	0.55
937	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
938	Tulip tree	15.0	40.03	Good	5,214.79	41.46	2.76
939	Tulip tree	18.0	44.95	Good	5,234.27	41.61	2.77
940	Tulip tree	14.0	35.10	Good	4,522.78	35.96	2.39
941	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
942	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
943	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
944	Tulip tree	17.0	49.87	Good	4,636.55	36.86	2.45
945	Tulip tree	16.0	40.03	Good	5,214.79	41.46	2.76
946	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
947	Common crapemyrtle	3.0	9.84	Good	119.26	0.95	0.06
948	Caucasian ash	8.0	15.09	Fair	414.52	3.30	0.22
949	Caucasian ash	8.0	15.09	Fair	414.52	3.30	0.22
951	Sweetgum	16.0	49.87	Good	2,681.94	21.32	1.42
952	Sweetgum	10.0	44.95	Fair	2,517.03	20.01	1.33
953	Chinese elm	17.0	40.03	Good	5,012.11	39.85	2.65
954	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
955	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
956	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
957	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
958	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
959	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
960	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
961	Northern red oak	1.0	15.09	Good	323.02	2.57	0.17
962	Sweetgum	12.0	44.95	Good	3,311.73	26.33	1.75
963	Sweetgum	13.0	49.87	Good	3,124.12	24.84	1.65
964	Scarlet oak	16.0	44.95	Good	2,899.04	23.05	1.53
965	Scarlet oak	16.0	44.95	Fair	2,899.04	23.05	1.53
966	Scarlet oak	14.0	44.95	Good	2,295.62	18.25	1.22
967	Scarlet oak	19.0	69.88	Good	9,709.37	77.19	5.14
968	London plane	28.0	84.97	Fair	26,303.66	209.11	13.92
969	London plane	14.0	20.01	Critical	656.28	5.22	0.35
970	London plane	26.0	80.05	Good	24,634.07	195.84	13.04
973	Sweetgum	14.0	40.03	Good	3,299.46	26.23	1.75
974	Sweetgum	12.0	29.86	Good	2,354.93	18.72	1.25
975	London plane	22.0	55.12	Good	9,613.25	76.42	5.09
976	London plane	12.0	29.86	Fair	752.61	5.98	0.40
977	London plane	14.0	35.10	Good	2,912.93	23.16	1.54
978	London plane	11.0	24.93	Fair	954.97	7.59	0.51
979	London plane	14.0	49.87	Good	3,978.88	31.63	2.11
980	London plane	15.0	24.93	Fair	1,222.03	9.71	0.65
981	London plane	14.0	20.01	Fair	452.51	3.60	0.24
982	London plane	15.0	24.93	Poor	771.34	6.13	0.41
983	Modesto ash	17.0	55.12	Fair	6,503.12	51.70	3.44

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
985	Camphor tree	15.0	24.93	Good	1,348.61	15.35	1.02
987	Black locust	14.0	24.93	Good	998.35	7.94	0.53
988	Black locust	14.0	24.93	Good	998.35	7.94	0.53
989	Black locust	14.0	24.93	Good	998.35	7.94	0.53
990	Black locust	14.0	24.93	Good	998.35	7.94	0.53
991	Black locust	14.0	24.93	Good	998.35	7.94	0.53
992	Black locust	14.0	24.93	Good	998.35	7.94	0.53
993	Black locust	14.0	24.93	Good	998.35	7.94	0.53
994	Black locust	14.0	24.93	Good	998.35	7.94	0.53
995	Chinese pistache	20.0	40.03	Good	4,189.31	33.30	2.22
996	Chinese pistache	24.0	40.03	Good	4,189.31	33.30	2.22
998	Tulip tree	21.0	44.95	Fair	5,234.27	41.61	2.77
999	Tulip tree	16.0	40.03	Fair	5,214.79	41.46	2.76
1002	London plane	28.0	40.03	Good	5,118.24	40.69	2.71
1003	Camphor tree	16.0	24.93	Good	1,348.61	15.35	1.02
1004	Camphor tree	16.0	24.93	Good	1,348.61	15.35	1.02
1005	Camphor tree	15.0	20.01	Fair	726.78	8.27	0.55
1006	Camphor tree	11.0	15.09	Fair	311.51	3.54	0.24
1007	Camphor tree	12.0	20.01	Fair	726.78	8.27	0.55
1009	Northern red oak	12.0	29.86	Good	2,532.86	20.14	1.34
1011	Sweetgum	12.0	29.86	Fair	1,591.98	12.66	0.84
1012	Chinese pistache	25.0	49.87	Good	6,251.79	49.70	3.31
1016	Northern red oak	16.0	29.86	Good	2,378.50	18.91	1.26
1017	Scarlet oak	19.0	35.10	Good	2,221.89	17.66	1.18
1018	Scarlet oak	24.0	44.95	Good	2,295.62	18.25	1.22
1019	Scarlet oak	18.0	40.03	Good	2,018.77	16.05	1.07
1022	Japanese zelkova	16.0	29.86	Fair	2,100.36	16.70	1.11
1023	Japanese zelkova	18.0	35.10	Fair	2,552.23	20.29	1.35
1024	Japanese zelkova	22.0	35.10	Good	2,742.64	21.80	1.45
1025	Chinese pistache	28.0	49.87	Good	6,251.79	49.70	3.31
1026	Chinese pistache	13.0	35.10	Good	2,836.40	22.55	1.50
1027	Chinese pistache	19.0	35.10	Good	2,836.40	22.55	1.50
1028	Scarlet oak	19.0	35.10	Fair	2,517.03	20.01	1.33
1029	Chinese pistache	18.0	29.86	Good	2,990.11	23.77	1.58
1030	Chinese pistache	18.0	40.03	Good	4,189.31	33.30	2.22
1031	Chinese pistache	18.0	40.03	Good	4,189.31	33.30	2.22
1032	Chinese pistache	18.0	35.10	Good	3,397.52	27.01	1.80
1033	Sweetgum	12.0	35.10	Good	2,049.99	16.30	1.09
1034	Sweetgum	9.0	29.86	Good	2,049.99	16.30	1.09
1035	Sweetgum	13.0	40.03	Good	2,774.83	22.06	1.47
1036	Sweetgum	12.0	35.10	Good	2,384.96	18.96	1.26
1037	Modesto ash	20.2	29.86	Fair	2,354.93	18.72	1.25
1038	Scarlet oak	16.0	35.10	Good	2,517.03	20.01	1.33
1039	White mulberry	8.8	15.09	Good	331.64	2.64	0.18
1040	Oleander	2.6	9.84	Good	123.46	1.40	0.09
1041	Hind walnut	14.0	15.09	Fair	145.53	1.16	0.08
1042	Scarlet oak	19.0	44.95	Good	2,522.52	20.05	1.34
1043	Scarlet oak	23.0	55.12	Good	5,745.24	45.67	3.04
1044	Scarlet oak	17.0	35.10	Good	2,342.33	18.62	1.24
1045	Scarlet oak	18.0	35.10	Good	2,342.33	18.62	1.24
1046	Northern red oak	12.0	29.86	Good	2,532.86	20.14	1.34
1047	Northern red oak	12.0	29.86	Good	2,532.86	20.14	1.34
1048	Callery pear	5.0	20.01	Fair	421.41	3.35	0.22
1049	Callery pear	6.4	20.01	Fair	421.41	3.35	0.22
1050	Northern red oak	15.0	35.10	Good	3,307.53	26.29	1.75
1051	Callery pear	7.1	20.01	Fair	421.41	3.35	0.22
1052	Northern red oak	13.0	35.10	Good	3,307.53	26.29	1.75
1053	Callery pear	3.0	9.84	Fair	50.27	0.40	0.03
1054	Callery pear	5.0	15.09	Fair	195.04	1.55	0.10
1055	Northern red oak	12.0	24.93	Poor	1,025.15	8.15	0.54
1056	Sweetgum	12.0	24.93	Fair	1,004.49	7.99	0.53

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
1057	Sweetgum	8.0	20.01	Fair	460.59	3.66	0.24
1058	Sweetgum	11.0	29.86	Fair	2,354.93	18.72	1.25
1059	Sweetgum	17.0	40.03	Fair	3,299.46	26.23	1.75
1060	Sweetgum	13.0	40.03	Fair	2,563.53	20.38	1.36
1061	Sweetgum	9.0	35.10	Fair	2,451.37	19.49	1.30
1062	Sweetgum	9.0	24.93	Poor	693.95	5.52	0.37
1063	Sweetgum	8.0	29.86	Good	1,848.81	14.70	0.98
1064	Sweetgum	12.0	35.10	Good	3,075.14	24.45	1.63
1065	Sweetgum	13.0	35.10	Good	3,075.14	24.45	1.63
1066	Northern red oak	11.0	24.93	Fair	1,178.11	9.37	0.62
1067	Callery pear	5.8	15.09	Fair	242.19	1.93	0.13
1068	Callery pear	5.8	15.09	Fair	242.19	1.93	0.13
1069	Northern red oak	14.0	35.10	Good	3,307.53	26.29	1.75
1070	Callery pear	7.1	15.09	Fair	207.10	1.65	0.11
1071	Northern red oak	18.0	35.10	Good	3,307.53	26.29	1.75
1072	Callery pear	5.8	15.09	Fair	207.10	1.65	0.11
1073	Callery pear	9.1	20.01	Fair	421.41	3.35	0.22
1074	Northern red oak	13.0	35.10	Good	3,307.53	26.29	1.75
1075	Northern red oak	9.0	20.01	Poor	364.79	2.90	0.19
1076	Sweetgum	17.0	44.95	Good	3,081.82	24.50	1.63
1077	Sweetgum	16.0	49.87	Good	2,552.55	20.29	1.35
1078	Callery pear	4.0	15.09	Good	257.90	2.05	0.14
1079	Callery pear	4.0	15.09	Good	257.90	2.05	0.14
1080	Callery pear	7.0	24.93	Good	1,184.89	9.42	0.63
1081	Callery pear	7.0	24.93	Good	1,184.89	9.42	0.63
1082	Callery pear	6.0	24.93	Good	1,184.89	9.42	0.63
1083	Callery pear	6.0	24.93	Good	1,184.89	9.42	0.63
1084	Callery pear	6.0	24.93	Good	1,184.89	9.42	0.63
1088	Tulip tree	18.0	40.03	Good	5,214.79	41.46	2.76
1090	Common crapemyrtle	2.0	7.87	Good	60.92	0.48	0.03
1091	Tulip tree	13.0	24.93	Good	1,843.64	14.66	0.98
1092	Tulip tree	12.0	20.01	Good	845.29	6.72	0.45
1093	Sweetgum	20.0	49.87	Good	2,743.07	21.81	1.45
1094	Common crapemyrtle	7.1	15.09	Good	259.09	2.06	0.14
1095	Cherry plum	8.7	20.01	Good	527.97	4.20	0.28
1096	London plane	16.0	29.86	Fair	2,466.98	19.61	1.31
1097	London plane	21.0	40.03	Fair	4,121.18	32.76	2.18
1098	London plane	14.0	29.86	Fair	2,199.82	17.49	1.16
1099	London plane	15.0	29.86	Fair	2,199.82	17.49	1.16
1101	London plane	14.0	35.10	Fair	4,150.78	33.00	2.20
1102	Tulip tree	11.0	35.10	Fair	4,860.23	38.64	2.57
1103	Japanese zelkova	17.0	29.86	Good	2,100.36	16.70	1.11
1104	Sweetgum	16.0	35.10	Good	2,861.59	22.75	1.51
1105	Northern red oak	14.0	35.10	Good	3,307.53	26.29	1.75
1106	Northern red oak	15.0	35.10	Good	3,307.53	26.29	1.75
1107	Camphor tree	14.0	20.01	Fair	672.53	7.65	0.51
1108	Chinese pistache	5.0	9.84	Good	88.26	0.70	0.05
1109	Camphor tree	16.0	29.86	Fair	1,616.85	18.40	1.22
1110	Chinese pistache	17.0	29.86	Good	2,795.93	22.23	1.48
1111	Chinese pistache	17.0	29.86	Good	2,795.93	22.23	1.48
1112	Chinese pistache	21.0	55.12	Good	6,573.84	52.26	3.48
1113	Chinese pistache	21.0	55.12	Good	6,573.84	52.26	3.48
1114	Chinese pistache	21.0	55.12	Good	6,573.84	52.26	3.48
1117	Camphor tree	17.0	29.86	Fair	1,747.20	19.88	1.32
1118	Camphor tree	15.0	24.93	Fair	1,173.48	13.35	0.89
1119	Camphor tree	15.0	24.93	Fair	1,173.48	13.35	0.89
1120	London plane	12.0	24.93	Good	1,339.46	10.65	0.71
1121	Tulip tree	2.0	9.84	Good	174.48	1.39	0.09
1122	Tulip tree	2.0	9.84	Good	174.48	1.39	0.09
1123	London plane	20.0	24.93	Fair	1,339.46	10.65	0.71
1124	London plane	20.0	24.93	Fair	1,339.46	10.65	0.71

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
1128	Chinese pistache	30.0	44.95	Good	4,205.03	33.43	2.23
1132	Modesto ash	13.0	20.01	Fair	423.45	3.37	0.22
1133	English walnut	14.0	24.93	Fair	679.96	5.41	0.36
1134	London plane	13.0	24.93	Fair	863.16	6.86	0.46
1135	London plane	25.0	55.12	Good	11,616.09	92.35	6.15
1136	London plane	25.0	55.12	Good	11,616.09	92.35	6.15
1137	London plane	25.0	55.12	Good	11,616.09	92.35	6.15
1138	London plane	20.0	40.03	Good	5,782.91	45.97	3.06
1139	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1140	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1141	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1142	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1143	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1144	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1145	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1146	London plane	20.0	40.03	Good	5,782.91	45.97	3.06
1147	London plane	20.0	40.03	Good	5,782.91	45.97	3.06
1148	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1149	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1150	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1151	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1152	London plane	20.0	40.03	Good	5,782.91	45.97	3.06
1153	London plane	20.0	40.03	Good	5,782.91	45.97	3.06
1154	London plane	20.0	40.03	Good	5,782.91	45.97	3.06
1155	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1156	London plane	16.0	35.10	Good	5,389.81	42.85	2.85
1157	Modesto ash	13.0	20.01	Poor	460.59	3.66	0.24
1158	Modesto ash	15.0	35.10	Poor	2,648.03	21.05	1.40
1160	Modesto ash	18.0	29.86	Fair	2,518.54	20.02	1.33
1161	Modesto ash	12.0	29.86	Fair	1,977.22	15.72	1.05
1162	Sweetgum	5.0	15.09	Poor	289.12	2.30	0.15
1163	Sweetgum	5.0	15.09	Poor	289.12	2.30	0.15
1164	Sweetgum	5.0	15.09	Poor	289.12	2.30	0.15
1165	London plane	24.0	29.86	Good	2,466.98	19.61	1.31
1166	California palm	25.0	24.93	Good	554.66	6.31	0.42
1167	Sweetgum	10.0	24.93	Fair	1,328.48	10.56	0.70
1168	Sweetgum	8.0	20.01	Fair	609.13	4.84	0.32
1169	Sweetgum	3.0	15.09	Fair	289.12	2.30	0.15
1170	Sweetgum	20.0	55.12	Fair	7,857.98	62.47	4.16
1171	Cherry plum	8.0	15.09	Poor	217.32	1.73	0.12
1177	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1178	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1179	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1180	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1181	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1182	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1185	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1186	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1187	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1188	Sweetgum	12.0	24.93	Good	1,166.48	9.27	0.62
1189	Sweetgum	12.0	35.10	Good	3,075.14	24.45	1.63
1190	Sweetgum	12.0	35.10	Good	3,075.14	24.45	1.63
1191	Sweetgum	12.0	35.10	Good	3,075.14	24.45	1.63
1192	Sweetgum	12.0	35.10	Good	3,075.14	24.45	1.63
1193	Sweetgum	12.0	35.10	Good	3,075.14	24.45	1.63
1194	Chinese hackberry	8.0	15.09	Good	695.03	5.53	0.37
1195	Sweetgum	12.0	20.01	Good	609.13	4.84	0.32
1196	Modesto ash	12.0	29.86	Good	2,354.93	18.72	1.25
1197	Chinese pistache	17.0	29.86	Good	3,184.29	25.31	1.69
1198	Chinese pistache	10.0	20.01	Good	723.23	5.75	0.38
1199	Chinese pistache	10.0	20.01	Good	723.23	5.75	0.38

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
1200	Chinese pistache	10.0	20.01	Good	723.23	5.75	0.38
1201	Chinese pistache	10.0	20.01	Good	723.23	5.75	0.38
1202	Common crapemyrtle	2.0	9.84	Good	119.26	0.95	0.06
1203	Common crapemyrtle	2.0	9.84	Good	119.26	0.95	0.06
1204	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1205	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1206	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1207	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1208	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1209	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1210	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1211	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1212	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1213	London plane	15.0	24.93	Good	1,457.00	11.58	0.77
1214	Sweetgum	14.0	29.86	Good	2,518.54	20.02	1.33
1215	Sweetgum	14.0	29.86	Good	2,518.54	20.02	1.33
1216	Sweetgum	14.0	29.86	Good	2,518.54	20.02	1.33
1217	Sweetgum	14.0	29.86	Good	2,518.54	20.02	1.33
1219	Tulip tree	14.0	20.01	Good	727.96	5.79	0.39
1220	Tulip tree	14.0	20.01	Good	727.96	5.79	0.39
1221	Tulip tree	14.0	20.01	Good	727.96	5.79	0.39
1222	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1223	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1224	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1225	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1226	Northern red oak	9.0	15.09	Good	289.76	2.30	0.15
1228	Northern red oak	9.0	15.09	Good	289.76	2.30	0.15
1229	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1230	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1232	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1233	Modesto ash	21.0	24.93	Fair	842.49	6.70	0.45
1234	Modesto ash	18.0	24.93	Fair	842.49	6.70	0.45
1236	Common crapemyrtle	7.8	15.09	Good	350.69	2.79	0.19
1244	London plane	19.0	20.01	Fair	560.26	4.45	0.30
1249	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1250	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1251	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1252	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1253	Ginkgo	10.0	24.93	Good	1,331.17	10.58	0.70
1254	Ginkgo	16.0	24.93	Good	1,331.17	10.58	0.70
1255	Ginkgo	16.0	24.93	Good	1,331.17	10.58	0.70
1256	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1257	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1259	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1260	Northern red oak	9.0	15.09	Good	289.76	2.30	0.15
1261	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1262	Northern red oak	9.0	15.09	Good	289.76	2.30	0.15
1263	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1264	Callery pear	8.0	20.01	Good	576.41	4.58	0.31
1265	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1266	Norway maple	9.0	15.09	Good	293.64	2.33	0.16
1267	Camphor tree	21.0	35.10	Fair	2,682.80	30.53	2.03
1268	Camphor tree	22.1	24.93	Fair	1,173.48	13.35	0.89
1269	Camphor tree	14.0	24.93	Fair	1,173.48	13.35	0.89
1270	Camphor tree	18.0	29.86	Fair	1,747.20	19.88	1.32
1271	Scarlet oak	14.0	24.93	Fair	888.45	7.06	0.47
1273	White mulberry	20.0	24.93	Fair	1,173.48	9.33	0.62
1274	Northern catalpa	19.0	20.01	Fair	536.58	4.27	0.28
1276	London plane	19.0	24.93	Fair	1,574.54	12.52	0.83
1277	California palm	7.0	4.92	Fair	31.11	0.35	0.02
1283	London plane	31.0	60.04	Fair	12,439.85	98.89	6.58

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
1284	London plane	20.0	55.12	Fair	8,278.09	65.81	4.38
1285	London plane	17.0	24.93	Fair	587.71	4.67	0.31
1286	Chinese pistache	6.0	9.84	Poor	88.26	0.70	0.05
1287	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1288	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1289	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1290	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1291	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1292	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1293	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1294	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1295	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1296	Common crapemyrtle	4.6	9.84	Good	112.81	0.90	0.06
1298	London plane	20.0	35.10	Fair	4,770.35	37.92	2.52
1299	Callery pear	6.0	15.09	Good	273.62	2.18	0.14
1300	Callery pear	6.0	15.09	Good	273.62	2.18	0.14
1301	Sweetgum	12.0	29.86	Fair	2,682.04	21.32	1.42
1302	Sweetgum	12.0	29.86	Fair	2,682.04	21.32	1.42
1307	Scarlet oak	11.0	24.93	Fair	689.54	5.48	0.36
1308	Scarlet oak	11.0	24.93	Fair	689.54	5.48	0.36
1309	Scarlet oak	11.0	24.93	Fair	689.54	5.48	0.36
1310	Callery pear	20.0	29.86	Good	2,246.21	17.86	1.19
1311	Common crapemyrtle	5.0	15.09	Good	350.69	2.79	0.19
1314	Cherry plum	8.8	15.09	Good	350.69	2.79	0.19
1315	Cherry plum	8.8	15.09	Good	350.69	2.79	0.19
1316	Cherry plum	8.8	15.09	Good	350.69	2.79	0.19
1318	Japanese zelkova	12.0	24.93	Good	1,112.67	8.85	0.59
1319	Japanese zelkova	12.0	24.93	Good	1,112.67	8.85	0.59
1320	London plane	20.0	24.93	Fair	954.97	7.59	0.51
1321	London plane	21.0	49.87	Fair	3,894.60	30.96	2.06
1322	London plane	21.0	49.87	Fair	3,894.60	30.96	2.06
1323	London plane	20.0	24.93	Fair	954.97	7.59	0.51
1324	Sweetgum	6.0	24.93	Good	1,247.54	9.92	0.66
1325	Camphor tree	14.0	29.86	Critical	1,030.21	11.72	0.78
1326	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1327	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1328	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1329	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1330	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1331	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1332	Common crapemyrtle	4.0	9.84	Good	119.26	0.95	0.06
1335	London plane	10.0	24.93	Good	1,927.06	15.32	1.02
1336	Modesto ash	5.0	20.01	Fair	564.78	4.49	0.30
1337	Ginkgo	2.0	9.84	Good	111.19	0.88	0.06
1338	Ginkgo	3.0	15.09	Good	297.41	2.36	0.16
1339	London plane	6.0	20.01	Good	883.50	7.02	0.47
1340	Ginkgo	2.0	9.84	Good	111.19	0.88	0.06
1341	Sweetgum	12.0	29.86	Good	2,354.93	18.72	1.25
1342	Modesto ash	18.0	24.93	Fair	923.44	7.34	0.49
1343	Modesto ash	20.0	24.93	Poor	761.44	6.05	0.40
1344	Modesto ash	18.0	35.10	Fair	2,434.47	19.35	1.29
1345	Tulip tree	20.0	40.03	Good	4,852.59	38.58	2.57
1346	Chinese pistache	20.0	40.03	Good	3,645.31	28.98	1.93
1347	Black locust	12.0	29.86	Good	2,192.18	17.43	1.16
1348	Scarlet oak	12.0	29.86	Good	1,927.60	15.32	1.02
1349	Scarlet oak	25.0	49.87	Good	2,557.07	20.33	1.35
1350	Chinese pistache	24.0	44.95	Good	4,478.00	35.60	2.37
1354	Chinese pistache	22.0	44.95	Good	3,658.87	29.09	1.94
1355	Chinese pistache	12.0	24.93	Fair	878.98	6.99	0.47
1356	Chinese pistache	15.0	29.86	Good	2,601.85	20.68	1.38
1357	Chinese pistache	18.0	35.10	Good	3,651.01	29.02	1.93

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
1358	Chinese pistache	18.0	35.10	Good	3,651.01	29.02	1.93
1359	Chinese pistache	18.0	35.10	Good	3,651.01	29.02	1.93
1360	Chinese pistache	18.0	35.10	Good	3,651.01	29.02	1.93
1362	Chinese pistache	18.0	35.10	Good	3,651.01	29.02	1.93
1363	Chinese pistache	18.0	35.10	Good	3,651.01	29.02	1.93
1364	London plane	22.0	49.87	Good	3,978.88	31.63	2.11
1365	Chinese pistache	21.0	44.95	Good	4,205.03	33.43	2.23
1366	Chinese pistache	16.0	35.10	Good	3,904.61	31.04	2.07
1367	Chinese pistache	11.0	24.93	Good	1,288.76	10.25	0.68
1368	Chinese pistache	18.0	29.86	Good	2,601.85	20.68	1.38
1369	Chinese pistache	10.0	20.01	Good	590.94	4.70	0.31
1370	Deodar cedar	8.0	20.01	Good	243.69	2.77	0.18
1372	Sweetgum	8.0	20.01	Good	534.86	4.25	0.28
1373	Japanese zelkova	20.0	24.93	Fair	895.88	7.12	0.47
1374	Modesto ash	18.0	29.86	Fair	2,027.92	16.12	1.07
1375	Caucasian ash	19.0	35.10	Fair	2,902.70	23.08	1.54
1376	Caucasian ash	18.0	29.86	Fair	2,354.93	18.72	1.25
1377	Tulip tree	14.0	24.93	Fair	1,587.57	12.62	0.84
1378	Tulip tree	14.0	24.93	Fair	1,587.57	12.62	0.84
1382	Tulip tree	12.0	24.93	Fair	1,843.64	14.66	0.98
1383	Sweetgum	10.0	20.01	Fair	534.86	4.25	0.28
1384	Sweetgum	10.0	20.01	Fair	534.86	4.25	0.28
1385	Sweetgum	10.0	20.01	Fair	534.86	4.25	0.28
1386	Sweetgum	10.0	20.01	Fair	534.86	4.25	0.28
1387	Common crapemyrtle	3.0	9.84	Fair	93.43	0.74	0.05
1388	Common crapemyrtle	3.0	9.84	Fair	93.43	0.74	0.05
1389	Common crapemyrtle	3.0	9.84	Fair	93.43	0.74	0.05
1392	Tulip tree	12.0	24.93	Fair	1,843.64	14.66	0.98
1393	Tulip tree	12.0	24.93	Fair	1,843.64	14.66	0.98
1394	Tulip tree	18.0	29.86	Fair	3,722.05	29.59	1.97
1395	Sweetgum	18.0	29.86	Fair	2,354.93	18.72	1.25
1396	London plane	20.0	29.86	Fair	2,941.45	23.38	1.56
1397	London plane	20.0	29.86	Fair	2,941.45	23.38	1.56
1398	London plane	20.0	29.86	Fair	2,941.45	23.38	1.56
1399	London plane	20.0	29.86	Fair	2,941.45	23.38	1.56
1400	Caucasian ash	11.0	24.93	Fair	1,166.48	9.27	0.62
1401	Caucasian ash	11.0	24.93	Fair	1,166.48	9.27	0.62
1402	Caucasian ash	11.0	24.93	Fair	1,166.48	9.27	0.62
1403	Common crapemyrtle	3.0	9.84	Excellent	119.26	0.95	0.06
1404	English walnut	23.0	24.93	Poor	858.85	6.83	0.45
1406	Sweetgum	12.0	24.93	Fair	693.95	5.52	0.37
1407	Sweetgum	12.0	24.93	Fair	693.95	5.52	0.37
1408	Sweetgum	18.0	49.87	Good	2,933.60	23.32	1.55
1409	Sweetgum	18.0	49.87	Good	2,933.60	23.32	1.55
1414	Black locust	26.0	29.86	Fair	2,722.62	21.64	1.44
1415	Honeylocust	16.0	29.86	Fair	1,067.56	8.49	0.57
1416	Tulip tree	24.0	40.03	Good	5,576.89	44.34	2.95
1417	London plane	20.0	29.86	Fair	2,199.82	17.49	1.16
1418	London plane	20.0	29.86	Fair	2,199.82	17.49	1.16
1419	Scarlet oak	18.0	35.10	Fair	1,644.73	13.08	0.87
1420	Scarlet oak	21.0	44.95	Good	2,899.04	23.05	1.53
1421	Common crapemyrtle	2.0	9.84	Good	119.26	0.95	0.06
1422	Common crapemyrtle	2.0	9.84	Good	119.26	0.95	0.06
1423	Common crapemyrtle	2.0	9.84	Good	119.26	0.95	0.06
1424	London plane	24.0	24.93	Fair	1,339.46	10.65	0.71
1425	London plane	20.0	24.93	Fair	1,339.46	10.65	0.71
1426	London plane	20.0	24.93	Fair	1,339.46	10.65	0.71
1427	London plane	20.0	24.93	Fair	1,339.46	10.65	0.71
1428	London plane	20.0	24.93	Fair	1,339.46	10.65	0.71
1431	Caucasian ash	20.0	20.01	Poor	423.45	3.37	0.22
1432	Caucasian ash	17.0	44.95	Good	3,290.64	26.16	1.74

Tree ID	Species Name	DBH (inch)	Height (ft)	Tree Condition	Leaf Area (ft2)	Avoided Runoff (ft3/yr)	Avoided Runoff Value ($)
1433	Glossy privet	21.0	35.10	Poor	3,324.33	37.83	2.52
1434	Caucasian ash	18.0	44.95	Good	3,290.64	26.16	1.74
1435	Glossy privet	21.0	35.10	Fair	3,324.33	37.83	2.52
1436	Glossy privet	16.0	24.93	Fair	1,260.99	14.35	0.96
1437	Glossy privet	18.0	24.93	Good	1,260.99	14.35	0.96
1438	Chinese pistache	16.0	24.93	Good	1,673.47	13.30	0.89
1439	Chinese pistache	13.0	24.93	Good	1,673.47	13.30	0.89
1440	Chinese pistache	10.0	20.01	Good	767.25	6.10	0.41
1441	Caucasian ash	13.0	35.10	Fair	2,701.10	21.47	1.43
1442	Callery pear	7.2	20.01	Good	510.10	4.06	0.27
1443	Callery pear	7.2	20.01	Good	510.10	4.06	0.27
1444	Chinese pistache	12.0	24.93	Good	1,673.47	13.30	0.89
1445	California palm	28.0	64.96	Good	780.38	8.88	0.59
1446	California palm	28.0	64.96	Good	780.38	8.88	0.59
1447	California palm	28.0	64.96	Good	780.38	8.88	0.59
1448	California palm	28.0	64.96	Good	780.38	8.88	0.59
1449	California palm	28.0	64.96	Good	780.38	8.88	0.59
1450	California palm	28.0	64.96	Good	780.38	8.88	0.59
1451	California palm	12.0	29.86	Good	779.52	8.87	0.59
1452	California palm	28.0	64.96	Good	780.38	8.88	0.59
1453	California palm	28.0	60.04	Good	780.38	8.88	0.59
1454	California palm	16.0	49.87	Good	779.52	8.87	0.59
1455	California palm	16.0	40.03	Good	779.52	8.87	0.59
1456	California palm	18.0	55.12	Good	780.38	8.88	0.59
1457	Green indian laurel fig	12.7	15.09	Good	236.38	1.88	0.13
1458	apple spp	8.0	9.84	Good	95.48	0.76	0.05
1459	Sweetgum	11.0	24.93	Good	1,166.48	9.27	0.62
1460	Chinese pistache	7.0	15.09	Good	364.25	2.90	0.19
1463	Sweetgum	12.0	24.93	Good	1,085.54	8.63	0.57
1464	Sweetgum	10.0	24.93	Good	1,085.54	8.63	0.57
1465	Sweetgum	10.0	24.93	Good	1,085.54	8.63	0.57
1466	Sweetgum	10.0	24.93	Good	1,085.54	8.63	0.57
1467	Tulip tree	18.0	29.86	Good	3,463.50	27.53	1.83
1468	Tulip tree	18.0	29.86	Good	3,463.50	27.53	1.83
1469	Chinese pistache	12.0	29.86	Good	2,601.85	20.68	1.38
1470	Chinese pistache	12.0	29.86	Good	2,601.85	20.68	1.38
1471	Chinese pistache	12.0	29.86	Good	2,601.85	20.68	1.38
1472	Chinese pistache	12.0	29.86	Good	2,601.85	20.68	1.38
1474	Tulip tree	14.0	35.10	Good	4,860.23	38.64	2.57
1476	Tulip tree	12.0	24.93	Fair	1,843.64	14.66	0.98
1478	Chinese pistache	23.0	35.10	Good	3,397.52	27.01	1.80
1479	Chinese pistache	14.0	24.93	Good	956.05	7.60	0.51
1480	Chinese pistache	18.0	35.10	Good	3,397.52	27.01	1.80
	TOTAL				**1,762,829**	**14,417.29**	**960**

Avoided runoff is calculated by the price $0.067/ft3

Individual Tree Pollution Effects in Redding Downtown Core Street Trees

Series: Street Trees, Time Period: 2017

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
92	Tulip tree	0.1	1.2	0.2	0.6	0.0	0.0	0.00	0.05	0.00	0.15	0.00	0.06	0.01	0.06	0.07
116	Tulip tree	0.7	12.7	2.0	5.7	0.3	0.3	0.03	0.50	0.01	1.44	0.00	0.55	0.10	0.65	0.75
119	London plane	0.6	10.0	1.6	6.9	0.3	0.4	0.02	0.40	0.01	1.72	0.00	0.66	27.41	0.26	27.66
124	Tulip tree	0.8	13.1	2.0	6.9	0.3	0.4	0.03	0.52	0.01	1.74	0.00	0.67	0.10	0.68	0.78
125	Sweetgum	1.0	17.3	2.7	11.2	0.4	0.6	0.04	0.69	0.01	2.80	0.00	1.08	95.61	13.37	108.98
144	Southern magnolia	0.1	2.5	0.4	0.7	0.1	0.0	0.01	0.10	0.00	0.16	0.00	0.06	0.02	1.53	1.55
225	apple spp	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
255	Scarlet oak	0.6	10.2	1.6	5.3	0.3	0.3	0.02	0.40	0.01	1.34	0.00	0.52	53.43	0.51	53.94
258	Scarlet oak	1.4	24.3	3.8	9.7	0.6	0.5	0.05	0.97	0.02	2.43	0.00	0.93	127.81	1.21	129.02
261	Sweetgum	0.5	8.3	1.3	5.1	0.2	0.3	0.02	0.33	0.01	1.27	0.00	0.49	45.74	6.40	52.13
269	Northern red oak	0.6	10.4	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.92	0.00	0.36	54.54	0.52	55.06
294	Scarlet oak	0.4	7.3	1.1	3.5	0.2	0.2	0.01	0.29	0.01	0.89	0.00	0.34	38.40	0.36	38.76
296	Chinese pistache	1.4	24.5	3.8	9.1	0.6	0.5	0.05	0.98	0.02	2.29	0.00	0.88	0.00	49.99	49.99
393	Caucasian ash	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.25	0.00	0.10	0.02	0.06	0.07
428	Common crapemyrtle	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.00	0.00
444	Sweetgum	0.5	9.3	1.4	5.7	0.2	0.3	0.02	0.37	0.01	1.44	0.00	0.55	51.43	7.19	58.62
455	Scarlet oak	0.5	9.4	1.5	4.3	0.2	0.2	0.02	0.38	0.01	1.09	0.00	0.42	49.68	0.47	50.15
478	London plane	0.2	2.9	0.4	1.9	0.1	0.1	0.01	0.11	0.00	0.47	0.00	0.18	7.86	0.07	7.94
479	London plane	0.6	9.8	1.5	5.7	0.3	0.3	0.02	0.39	0.01	1.43	0.00	0.55	26.73	0.25	26.98
481	Japanese zelkova	0.6	11.0	1.7	5.5	0.3	0.3	0.02	0.44	0.01	1.37	0.00	0.53	0.09	0.57	0.65
484	Sweetgum	0.9	16.3	2.5	9.5	0.4	0.5	0.03	0.65	0.01	2.37	0.00	0.91	90.25	12.62	102.87
485	Sweetgum	0.9	16.3	2.5	9.5	0.4	0.5	0.03	0.65	0.01	2.37	0.00	0.91	90.25	12.62	102.87
486	Scarlet oak	0.9	16.4	2.5	6.7	0.4	0.3	0.03	0.65	0.01	1.68	0.00	0.65	86.48	0.82	87.30
487	Sweetgum	0.5	9.5	1.5	5.6	0.2	0.3	0.02	0.38	0.01	1.40	0.00	0.54	52.53	7.35	59.88
488	Camphor tree	0.2	3.6	0.6	1.8	0.1	0.1	0.01	0.14	0.00	0.45	0.00	0.17	0.00	0.00	0.00
498	Chinese pistache	1.5	25.8	4.0	9.8	0.7	0.5	0.05	1.03	0.02	2.45	0.00	0.94	0.00	52.56	52.56
571	Quercus wislizeni	0.2	4.1	0.6	1.1	0.1	0.1	0.01	0.16	0.00	0.28	0.00	0.11	21.65	0.21	21.86
572	London plane	0.1	1.4	0.2	1.0	0.0	0.1	0.00	0.05	0.00	0.24	0.00	0.09	3.74	0.04	3.78
573	Quercus ilex	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.14	0.00	0.05	6.83	0.06	6.89
576	Tulip tree	1.0	16.8	2.6	7.1	0.4	0.4	0.03	0.67	0.01	1.77	0.00	0.68	0.13	0.87	1.00
577	Quercus suber	0.5	8.9	1.4	1.9	0.2	0.1	0.02	0.36	0.01	0.48	0.00	0.19	47.05	0.45	47.49
581	Sweetgum	0.5	8.0	1.2	5.5	0.2	0.3	0.02	0.32	0.01	1.37	0.00	0.53	44.45	6.22	50.67
584	Scarlet oak	0.6	10.1	1.6	4.5	0.3	0.2	0.02	0.40	0.01	1.13	0.00	0.44	53.38	0.51	53.88
602	Sweetgum	0.5	8.9	1.4	5.6	0.2	0.3	0.02	0.35	0.01	1.39	0.00	0.54	49.26	6.89	56.15
610	Sweetgum	1.0	17.5	2.7	10.6	0.4	0.5	0.04	0.69	0.01	2.65	0.00	1.02	96.71	13.53	110.24
616	Scarlet oak	1.6	27.7	4.3	10.6	0.7	0.5	0.06	1.10	0.02	2.65	0.00	1.02	145.84	1.38	147.23
622	Scarlet oak	0.6	10.4	1.6	4.6	0.3	0.2	0.02	0.41	0.01	1.15	0.00	0.44	54.77	0.52	55.29
642	Scarlet oak	0.6	10.1	1.6	4.8	0.3	0.2	0.02	0.40	0.01	1.19	0.00	0.46	53.00	0.50	53.50
643	Scarlet oak	0.6	9.9	1.5	5.3	0.3	0.3	0.02	0.40	0.01	1.32	0.00	0.51	52.27	0.50	52.77
644	Camphor tree	2.1	36.6	5.7	14.6	0.9	0.8	0.08	1.46	0.03	3.67	0.00	1.41	0.00	0.00	0.00
645	Camphor tree	0.7	11.9	1.8	5.7	0.3	0.3	0.02	0.47	0.01	1.43	0.00	0.55	0.00	0.00	0.00
647	Sweetgum	0.1	1.1	0.2	0.6	0.0	0.0	0.00	0.04	0.00	0.16	0.00	0.06	5.85	0.82	6.67

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
648	Sweetgum	0.0	0.6	0.1	0.4	0.0	0.0	0.00	0.02	0.00	0.10	0.00	0.04	3.34	0.47	3.80
649	London plane	0.1	1.6	0.3	1.9	0.0	0.1	0.00	0.07	0.00	0.47	0.00	0.18	4.50	0.04	4.54
650	Scarlet oak	0.4	6.3	1.0	3.3	0.2	0.2	0.01	0.25	0.00	0.82	0.00	0.32	33.36	0.32	33.68
651	Scarlet oak	0.4	7.2	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.15	0.00	0.44	38.08	0.36	38.44
653	Scarlet oak	1.6	28.5	4.4	13.1	0.7	0.7	0.06	1.13	0.02	3.27	0.00	1.26	150.03	1.42	151.46
654	Sweetgum	0.4	7.6	1.2	4.2	0.2	0.2	0.02	0.30	0.01	1.05	0.00	0.40	42.16	5.90	48.05
658	Sweetgum	0.4	7.6	1.2	4.2	0.2	0.2	0.02	0.30	0.01	1.05	0.00	0.40	42.16	5.90	48.05
659	Sweetgum	0.4	6.6	1.0	3.7	0.2	0.2	0.01	0.26	0.01	0.94	0.00	0.36	36.31	5.08	41.39
660	Japanese zelkova	0.7	11.8	1.8	5.7	0.3	0.3	0.02	0.47	0.01	1.43	0.00	0.55	0.09	0.61	0.70
661	Japanese zelkova	1.5	25.2	3.9	10.4	0.6	0.5	0.05	1.00	0.02	2.62	0.00	1.01	0.20	1.30	1.50
662	Japanese zelkova	0.1	1.8	0.3	0.8	0.0	0.0	0.00	0.07	0.00	0.19	0.00	0.07	0.01	0.09	0.11
663	Scarlet oak	1.2	20.0	3.1	7.9	0.5	0.4	0.04	0.80	0.02	1.99	0.00	0.77	105.30	1.00	106.29
664	Scarlet oak	0.9	16.3	2.5	6.9	0.4	0.4	0.03	0.65	0.01	1.74	0.00	0.67	85.57	0.81	86.39
665	Scarlet oak	1.7	29.9	4.6	11.9	0.8	0.6	0.06	1.19	0.02	2.97	0.00	1.14	157.27	1.49	158.77
666	Scarlet oak	0.4	7.0	1.1	3.7	0.2	0.2	0.01	0.28	0.01	0.93	0.00	0.36	36.91	0.35	37.26
667	Scarlet oak	0.4	6.9	1.1	3.2	0.2	0.2	0.01	0.28	0.01	0.81	0.00	0.31	36.53	0.35	36.88
668	Japanese zelkova	0.5	9.4	1.5	5.7	0.2	0.3	0.02	0.37	0.01	1.43	0.00	0.55	0.07	0.48	0.56
669	Japanese zelkova	0.5	9.4	1.5	5.7	0.2	0.3	0.02	0.37	0.01	1.43	0.00	0.55	0.07	0.48	0.56
670	Sweetgum	0.4	6.2	1.0	3.1	0.2	0.2	0.01	0.25	0.00	0.78	0.00	0.30	34.35	4.80	39.15
676	Sweetgum	0.5	9.3	1.4	5.7	0.2	0.3	0.02	0.37	0.01	1.44	0.00	0.55	51.43	7.19	58.62
677	Sweetgum	0.5	9.3	1.4	5.7	0.2	0.3	0.02	0.37	0.01	1.44	0.00	0.55	51.43	7.19	58.62
679	Quercus suber	4.9	84.8	13.1	13.9	2.2	0.7	0.17	3.37	0.07	3.47	0.00	1.34	446.37	4.23	450.60
681	Sweetgum	0.5	8.3	1.3	5.6	0.2	0.3	0.02	0.33	0.01	1.40	0.00	0.54	45.92	6.42	52.34
683	Sweetgum	1.0	16.6	2.6	9.6	0.4	0.5	0.03	0.66	0.01	2.41	0.00	0.93	91.96	12.86	104.83
690	Scarlet oak	0.6	10.8	1.7	4.7	0.3	0.2	0.02	0.43	0.01	1.18	0.00	0.45	57.07	0.54	57.61
692	Scarlet oak	0.7	11.6	1.8	4.9	0.3	0.3	0.02	0.46	0.01	1.23	0.00	0.47	60.79	0.58	61.37
695	Scarlet oak	1.5	25.7	4.0	10.1	0.7	0.5	0.05	1.02	0.02	2.52	0.00	0.97	135.17	1.28	136.45
696	Scarlet oak	0.7	13.0	2.0	5.3	0.3	0.3	0.03	0.52	0.01	1.32	0.00	0.51	68.21	0.65	68.86
697	Caucasian ash	0.6	9.8	1.5	3.8	0.3	0.2	0.02	0.39	0.01	0.96	0.00	0.37	0.08	0.25	0.33
698	Caucasian ash	0.6	9.7	1.5	4.2	0.2	0.2	0.02	0.39	0.01	1.06	0.00	0.41	0.08	0.25	0.33
699	London plane	0.5	9.2	1.4	5.0	0.2	0.3	0.02	0.37	0.01	1.26	0.00	0.48	25.05	0.24	25.29
700	London plane	0.5	9.2	1.4	5.0	0.2	0.3	0.02	0.37	0.01	1.26	0.00	0.48	25.05	0.24	25.29
701	London plane	0.5	9.2	1.4	5.0	0.2	0.3	0.02	0.37	0.01	1.26	0.00	0.48	25.05	0.24	25.29
702	Camphor tree	1.4	24.0	3.7	11.1	0.6	0.6	0.05	0.95	0.02	2.77	0.00	1.07	0.00	0.00	0.00
703	Camphor tree	1.3	22.4	3.5	10.2	0.6	0.5	0.05	0.89	0.02	2.55	0.00	0.98	0.00	0.00	0.00
704	Camphor tree	0.7	11.7	1.8	5.6	0.3	0.3	0.02	0.47	0.01	1.41	0.00	0.54	0.00	0.00	0.00
705	Camphor tree	0.2	3.3	0.5	1.7	0.1	0.1	0.01	0.13	0.00	0.43	0.00	0.16	0.00	0.00	0.00
706	Camphor tree	0.9	15.3	2.4	6.6	0.4	0.3	0.03	0.61	0.01	1.66	0.00	0.64	0.00	0.00	0.00
707	Camphor tree	0.9	14.7	2.3	8.0	0.4	0.4	0.03	0.59	0.01	2.00	0.00	0.77	0.00	0.00	0.00
709	Scarlet oak	0.4	6.2	1.0	3.5	0.2	0.2	0.01	0.25	0.00	0.87	0.00	0.34	32.64	0.31	32.95
710	Scarlet oak	0.5	9.0	1.4	5.0	0.2	0.3	0.02	0.36	0.01	1.26	0.00	0.49	47.30	0.45	47.74
711	Scarlet oak	0.5	9.4	1.5	4.1	0.2	0.2	0.02	0.37	0.01	1.02	0.00	0.39	49.48	0.47	49.95
712	Japanese zelkova	0.4	7.0	1.1	3.0	0.2	0.2	0.01	0.28	0.01	0.74	0.00	0.29	0.05	0.36	0.41
713	Scarlet oak	1.8	31.1	4.8	12.2	0.8	0.6	0.06	1.24	0.02	3.05	0.00	1.17	163.56	1.55	165.11
714	Scarlet oak	1.8	31.1	4.8	12.2	0.8	0.6	0.06	1.24	0.02	3.05	0.00	1.17	163.56	1.55	165.11

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
715	Scarlet oak	0.5	8.4	1.3	4.9	0.2	0.3	0.02	0.33	0.01	1.22	0.00	0.47	44.21	0.42	44.63
716	Scarlet oak	0.5	9.4	1.5	4.1	0.2	0.2	0.02	0.37	0.01	1.03	0.00	0.39	49.56	0.47	50.03
718	London plane	0.7	11.3	1.8	6.6	0.3	0.3	0.02	0.45	0.01	1.65	0.00	0.64	30.94	0.29	31.23
719	London plane	0.7	11.3	1.8	7.4	0.3	0.4	0.02	0.45	0.01	1.85	0.00	0.71	30.97	0.29	31.26
720	London plane	0.7	11.3	1.8	7.4	0.3	0.4	0.02	0.45	0.01	1.85	0.00	0.71	30.97	0.29	31.26
722	Tulip tree	2.2	37.2	5.8	15.4	1.0	0.8	0.08	1.48	0.03	3.86	0.00	1.49	0.29	1.92	2.21
723	Tulip tree	2.2	37.2	5.8	15.4	1.0	0.8	0.08	1.48	0.03	3.86	0.00	1.49	0.29	1.92	2.21
724	Tulip tree	2.2	37.2	5.8	15.4	1.0	0.8	0.08	1.48	0.03	3.86	0.00	1.49	0.29	1.92	2.21
725	Tulip tree	2.2	37.2	5.8	15.4	1.0	0.8	0.08	1.48	0.03	3.86	0.00	1.49	0.29	1.92	2.21
726	Scarlet oak	1.7	29.4	4.6	11.7	0.8	0.6	0.06	1.17	0.02	2.94	0.00	1.13	154.66	1.47	156.12
727	Common crapemyrtle	0.3	5.2	0.8	2.0	0.1	0.1	0.01	0.21	0.00	0.50	0.00	0.19	0.00	0.00	0.00
728	Common crapemyrtle	0.2	3.9	0.6	1.7	0.1	0.1	0.01	0.16	0.00	0.42	0.00	0.16	0.00	0.00	0.00
729	Common crapemyrtle	0.1	1.3	0.2	0.7	0.0	0.0	0.00	0.05	0.00	0.19	0.00	0.07	0.00	0.00	0.00
730	Scarlet oak	1.7	29.4	4.6	11.7	0.8	0.6	0.06	1.17	0.02	2.94	0.00	1.13	154.66	1.47	156.12
731	Scarlet oak	1.3	23.2	3.6	9.4	0.6	0.5	0.05	0.92	0.02	2.35	0.00	0.91	122.05	1.16	123.21
732	Scarlet oak	1.6	26.8	4.2	10.4	0.7	0.5	0.06	1.07	0.02	2.60	0.00	1.00	141.28	1.34	142.62
734	London plane	2.8	49.0	7.6	26.0	1.3	1.3	0.10	1.95	0.04	6.52	0.00	2.51	133.69	1.26	134.96
735	Callery pear	0.1	2.5	0.4	1.0	0.1	0.1	0.01	0.10	0.00	0.26	0.00	0.10	0.00	0.00	0.00
736	Callery pear	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.00	0.00	0.00
737	Callery pear	0.3	5.4	0.8	2.0	0.1	0.1	0.01	0.21	0.00	0.51	0.00	0.20	0.00	0.00	0.00
738	Callery pear	0.3	5.4	0.8	2.0	0.1	0.1	0.01	0.21	0.00	0.51	0.00	0.20	0.00	0.00	0.00
740	Caucasian ash	0.1	1.4	0.2	0.8	0.0	0.0	0.00	0.06	0.00	0.20	0.00	0.08	0.01	0.04	0.05
741	Caucasian ash	0.1	1.4	0.2	0.8	0.0	0.0	0.00	0.06	0.00	0.20	0.00	0.08	0.01	0.04	0.05
742	London plane	0.6	10.5	1.6	6.0	0.3	0.3	0.02	0.42	0.01	1.51	0.00	0.58	28.72	0.27	28.99
743	Callery pear	0.1	2.5	0.4	1.0	0.1	0.1	0.01	0.10	0.00	0.26	0.00	0.10	0.00	0.00	0.00
744	Callery pear	0.1	2.5	0.4	1.0	0.1	0.1	0.01	0.10	0.00	0.26	0.00	0.10	0.00	0.00	0.00
745	Callery pear	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.00	0.00	0.00
746	Callery pear	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.00	0.00	0.00
747	Callery pear	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.00	0.00	0.00
748	Callery pear	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.00	0.00	0.00
749	Callery pear	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.00	0.00	0.00
750	Camphor tree	0.0	0.7	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.09	0.00	0.04	0.00	0.00	0.00
751	Camphor tree	0.3	5.8	0.9	2.6	0.1	0.1	0.01	0.23	0.00	0.65	0.00	0.25	0.00	0.00	0.00
752	Camphor tree	0.5	8.0	1.2	3.5	0.2	0.2	0.02	0.32	0.01	0.87	0.00	0.33	0.00	0.00	0.00
753	Camphor tree	0.5	8.0	1.2	3.5	0.2	0.2	0.02	0.32	0.01	0.87	0.00	0.33	0.00	0.00	0.00
754	Camphor tree	0.5	8.0	1.2	3.5	0.2	0.2	0.02	0.32	0.01	0.87	0.00	0.33	0.00	0.00	0.00
755	Camphor tree	0.7	12.3	1.9	5.2	0.3	0.3	0.03	0.49	0.01	1.30	0.00	0.50	0.00	0.00	0.00
756	Camphor tree	0.8	14.3	2.2	5.8	0.4	0.3	0.03	0.57	0.01	1.44	0.00	0.56	0.00	0.00	0.00
757	Camphor tree	0.7	12.3	1.9	5.2	0.3	0.3	0.03	0.49	0.01	1.30	0.00	0.50	0.00	0.00	0.00
758	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
759	Camphor tree	0.2	3.1	0.5	2.1	0.1	0.1	0.01	0.13	0.00	0.52	0.00	0.20	0.00	0.00	0.00
760	Camphor tree	0.1	1.7	0.3	1.2	0.0	0.1	0.00	0.07	0.00	0.31	0.00	0.12	0.00	0.00	0.00
761	Camphor tree	0.0	0.1	0.0	0.2	0.0	0.0	0.00	0.00	0.00	0.05	0.00	0.02	0.00	0.00	0.00
762	Sweetgum	0.5	8.3	1.3	5.1	0.2	0.3	0.02	0.33	0.01	1.27	0.00	0.49	45.74	6.40	52.13
763	Sweetgum	0.5	8.3	1.3	5.1	0.2	0.3	0.02	0.33	0.01	1.27	0.00	0.49	45.74	6.40	52.13

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
764	Sweetgum	1.0	17.5	2.7	10.6	0.4	0.5	0.04	0.69	0.01	2.65	0.00	1.02	96.71	13.53	110.24
765	Sweetgum	1.1	19.3	3.0	11.4	0.5	0.6	0.04	0.77	0.02	2.85	0.00	1.10	107.06	14.97	122.03
766	Sweetgum	0.5	7.8	1.2	5.1	0.2	0.3	0.02	0.31	0.01	1.28	0.00	0.49	43.23	6.05	49.27
767	Sweetgum	0.4	6.5	1.0	5.4	0.2	0.3	0.01	0.26	0.01	1.34	0.00	0.52	35.82	5.01	40.83
768	Common crapemyrtle	0.1	1.1	0.2	0.5	0.0	0.0	0.00	0.04	0.00	0.12	0.00	0.05	0.00	0.00	0.00
769	Sweetgum	0.5	7.8	1.2	5.9	0.2	0.3	0.02	0.31	0.01	1.49	0.00	0.57	43.29	6.05	49.34
770	Scarlet oak	0.3	5.7	0.9	2.7	0.1	0.1	0.01	0.23	0.00	0.67	0.00	0.26	30.05	0.28	30.33
771	Scarlet oak	1.1	18.7	2.9	8.2	0.5	0.4	0.04	0.74	0.01	2.06	0.00	0.79	98.43	0.93	99.37
772	Sweetgum	0.5	7.8	1.2	5.9	0.2	0.3	0.02	0.31	0.01	1.49	0.00	0.57	43.29	6.05	49.34
773	Sweetgum	0.5	9.4	1.5	5.8	0.2	0.3	0.02	0.38	0.01	1.45	0.00	0.56	52.26	7.31	59.57
774	Sweetgum	0.5	8.4	1.3	5.3	0.2	0.3	0.02	0.33	0.01	1.34	0.00	0.52	46.26	6.47	52.73
775	Sweetgum	0.9	16.4	2.5	10.1	0.4	0.5	0.03	0.65	0.01	2.54	0.00	0.98	90.80	12.70	103.50
776	Sweetgum	1.1	19.8	3.1	12.3	0.5	0.6	0.04	0.79	0.02	3.07	0.00	1.18	109.87	15.37	125.24
777	Sweetgum	0.3	6.0	0.9	5.2	0.2	0.3	0.01	0.24	0.00	1.30	0.00	0.50	33.34	4.66	38.00
778	Sweetgum	0.5	8.4	1.3	5.3	0.2	0.3	0.02	0.33	0.01	1.34	0.00	0.52	46.26	6.47	52.73
779	Sweetgum	1.0	17.5	2.7	10.6	0.4	0.5	0.04	0.69	0.01	2.65	0.00	1.02	96.71	13.53	110.24
780	Sweetgum	0.8	13.8	2.1	8.4	0.4	0.4	0.03	0.55	0.01	2.11	0.00	0.81	76.26	10.67	86.93
782	Sweetgum	0.4	6.5	1.0	5.4	0.2	0.3	0.01	0.26	0.01	1.34	0.00	0.52	35.82	5.01	40.83
783	Sweetgum	0.3	5.9	0.9	3.7	0.2	0.2	0.01	0.24	0.00	0.92	0.00	0.35	32.88	4.60	37.48
784	Sweetgum	1.1	18.6	2.9	11.7	0.5	0.6	0.04	0.74	0.01	2.94	0.00	1.13	102.74	14.37	117.11
785	Sweetgum	1.1	18.6	2.9	11.7	0.5	0.6	0.04	0.74	0.01	2.94	0.00	1.13	102.74	14.37	117.11
786	Sweetgum	0.3	5.6	0.9	5.0	0.1	0.3	0.01	0.22	0.00	1.25	0.00	0.48	30.83	4.31	35.14
787	Sweetgum	1.1	19.8	3.1	12.3	0.5	0.6	0.04	0.79	0.02	3.07	0.00	1.18	109.87	15.37	125.24
788	Camphor tree	0.9	15.8	2.4	8.3	0.4	0.4	0.03	0.63	0.01	2.08	0.00	0.80	0.00	0.00	0.00
789	Camphor tree	0.9	15.8	2.4	8.3	0.4	0.4	0.03	0.63	0.01	2.08	0.00	0.80	0.00	0.00	0.00
790	Scarlet oak	0.3	5.5	0.9	3.1	0.1	0.2	0.01	0.22	0.00	0.77	0.00	0.30	28.91	0.27	29.19
791	Scarlet oak	0.6	10.1	1.6	4.3	0.3	0.2	0.02	0.40	0.01	1.07	0.00	0.41	53.00	0.50	53.50
792	Scarlet oak	0.7	11.6	1.8	4.9	0.3	0.3	0.02	0.46	0.01	1.23	0.00	0.47	60.79	0.58	61.37
793	Scarlet oak	1.2	20.1	3.1	8.6	0.5	0.4	0.04	0.80	0.02	2.15	0.00	0.83	105.79	1.00	106.79
794	Scarlet oak	1.3	22.9	3.5	9.3	0.6	0.5	0.05	0.91	0.02	2.33	0.00	0.90	120.48	1.14	121.62
795	Scarlet oak	1.3	22.9	3.5	9.3	0.6	0.5	0.05	0.91	0.02	2.33	0.00	0.90	120.48	1.14	121.62
798	London plane	0.5	8.3	1.3	5.1	0.2	0.3	0.02	0.33	0.01	1.28	0.00	0.49	22.74	0.22	22.96
799	London plane	0.6	10.5	1.6	6.3	0.3	0.3	0.02	0.42	0.01	1.57	0.00	0.60	28.79	0.27	29.07
800	London plane	0.5	8.6	1.3	6.2	0.2	0.3	0.02	0.34	0.01	1.56	0.00	0.60	23.35	0.22	23.57
801	London plane	0.8	14.5	2.3	9.4	0.4	0.5	0.03	0.58	0.01	2.35	0.00	0.90	39.70	0.38	40.08
802	London plane	1.4	24.0	3.7	13.3	0.6	0.7	0.05	0.96	0.02	3.34	0.00	1.29	65.56	0.62	66.18
806	Japanese zelkova	0.7	12.9	2.0	4.9	0.3	0.3	0.03	0.51	0.01	1.23	0.00	0.47	0.10	0.67	0.77
807	Camphor tree	0.7	12.3	1.9	5.2	0.3	0.3	0.03	0.49	0.01	1.30	0.00	0.50	0.00	0.00	0.00
808	London plane	0.6	10.5	1.6	6.3	0.3	0.3	0.02	0.42	0.01	1.57	0.00	0.60	28.79	0.27	29.07
809	London plane	1.7	29.3	4.5	16.2	0.8	0.8	0.06	1.17	0.02	4.07	0.00	1.57	80.10	0.76	80.86
810	London plane	0.5	8.3	1.3	5.1	0.2	0.3	0.02	0.33	0.01	1.28	0.00	0.49	22.74	0.22	22.96
811	English walnut	0.0	0.9	0.1	0.8	0.0	0.0	0.00	0.03	0.00	0.20	0.00	0.08	0.01	0.66	0.67
814	Scarlet oak	0.6	9.8	1.5	4.2	0.3	0.2	0.02	0.39	0.01	1.05	0.00	0.40	51.63	0.49	52.12
815	Scarlet oak	0.4	7.3	1.1	3.5	0.2	0.2	0.01	0.29	0.01	0.89	0.00	0.34	38.40	0.36	38.76
816	Scarlet oak	0.3	4.7	0.7	2.4	0.1	0.1	0.01	0.19	0.00	0.61	0.00	0.23	24.78	0.24	25.02

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
817	London plane	0.5	8.8	1.4	5.5	0.2	0.3	0.02	0.35	0.01	1.38	0.00	0.53	23.99	0.23	24.22
818	London plane	0.7	11.3	1.8	6.6	0.3	0.3	0.02	0.45	0.01	1.65	0.00	0.64	30.94	0.29	31.23
831	Tulip tree	0.9	15.9	2.5	7.8	0.4	0.4	0.03	0.63	0.01	1.96	0.00	0.76	0.12	0.82	0.94
845	Tulip tree	1.8	30.8	4.8	13.3	0.8	0.7	0.06	1.23	0.02	3.34	0.00	1.29	0.24	1.59	1.83
846	Quercus suber	2.0	34.6	5.4	7.6	0.9	0.4	0.07	1.38	0.03	1.89	0.00	0.73	182.11	1.73	183.84
850	Japanese zelkova	0.5	9.1	1.4	3.9	0.2	0.2	0.02	0.36	0.01	0.99	0.00	0.38	0.07	0.47	0.54
852	Sweetgum	0.4	6.4	1.0	4.5	0.2	0.2	0.01	0.25	0.01	1.13	0.00	0.44	35.33	4.94	40.27
853	Sweetgum	0.9	16.0	2.5	10.0	0.4	0.5	0.03	0.64	0.01	2.50	0.00	0.96	88.60	12.39	100.99
856	Quercus suber	1.6	28.3	4.4	5.4	0.7	0.3	0.06	1.13	0.02	1.34	0.00	0.52	149.05	1.41	150.47
857	Quercus suber	1.8	31.4	4.9	7.2	0.8	0.4	0.06	1.25	0.02	1.80	0.00	0.70	165.12	1.57	166.69
858	Tulip tree	2.0	35.1	5.4	14.7	0.9	0.8	0.07	1.40	0.03	3.69	0.00	1.42	0.27	1.81	2.09
859	London plane	0.7	11.3	1.7	6.3	0.3	0.3	0.02	0.45	0.01	1.59	0.00	0.61	30.82	0.29	31.11
860	London plane	0.7	12.1	1.9	6.9	0.3	0.4	0.02	0.48	0.01	1.73	0.00	0.67	33.08	0.31	33.39
862	Quercus ilex	0.4	6.9	1.1	2.3	0.2	0.1	0.01	0.28	0.01	0.58	0.00	0.22	36.43	0.35	36.78
863	Tulip tree	0.9	15.7	2.4	6.7	0.4	0.3	0.03	0.63	0.01	1.69	0.00	0.65	0.12	0.81	0.94
866	Sweetgum	0.4	6.7	1.0	4.0	0.2	0.2	0.01	0.27	0.01	1.00	0.00	0.39	37.23	5.21	42.43
867	Sweetgum	0.4	6.7	1.0	4.0	0.2	0.2	0.01	0.27	0.01	1.00	0.00	0.39	37.23	5.21	42.43
868	Sweetgum	1.0	17.5	2.7	10.6	0.4	0.5	0.04	0.69	0.01	2.65	0.00	1.02	96.71	13.53	110.24
869	Sweetgum	1.0	17.5	2.7	10.6	0.4	0.5	0.04	0.69	0.01	2.65	0.00	1.02	96.71	13.53	110.24
870	Callery pear	0.1	2.3	0.4	1.0	0.1	0.1	0.00	0.09	0.00	0.25	0.00	0.10	0.00	0.00	0.00
871	Sweetgum	0.4	6.8	1.1	5.5	0.2	0.3	0.01	0.27	0.01	1.38	0.00	0.53	37.62	5.26	42.89
872	Sweetgum	0.4	6.8	1.1	5.5	0.2	0.3	0.01	0.27	0.01	1.38	0.00	0.53	37.62	5.26	42.89
873	Southern magnolia	0.3	5.3	0.8	1.3	0.1	0.1	0.01	0.21	0.00	0.33	0.00	0.13	0.03	3.23	3.27
874	Southern magnolia	1.4	23.5	3.6	5.0	0.6	0.3	0.05	0.94	0.02	1.26	0.00	0.49	0.14	14.24	14.38
875	Southern magnolia	0.7	11.6	1.8	2.6	0.3	0.1	0.02	0.46	0.01	0.65	0.00	0.25	0.07	7.05	7.12
876	Southern magnolia	1.4	23.5	3.6	5.0	0.6	0.3	0.05	0.94	0.02	1.26	0.00	0.49	0.14	14.24	14.38
877	Southern magnolia	1.6	27.0	4.2	5.5	0.7	0.3	0.06	1.08	0.02	1.39	0.00	0.53	0.16	16.36	16.52
878	Common crapemyrtle	0.0	0.1	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
879	Flowering dogwood	0.1	2.4	0.4	1.2	0.1	0.1	0.00	0.10	0.00	0.30	0.00	0.12	0.02	0.99	1.01
881	Flowering dogwood	0.1	2.4	0.4	1.2	0.1	0.1	0.00	0.10	0.00	0.30	0.00	0.12	0.02	0.99	1.01
882	Common crapemyrtle	0.0	0.1	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
883	Common crapemyrtle	0.0	0.1	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
884	Flowering dogwood	0.1	2.4	0.4	1.2	0.1	0.1	0.00	0.10	0.00	0.30	0.00	0.12	0.02	0.99	1.01
885	Common crapemyrtle	0.0	0.1	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
886	Common crapemyrtle	0.0	0.1	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
887	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
888	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
889	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
890	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
891	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
892	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
893	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
894	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
895	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
896	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
897	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
898	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
899	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
900	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
901	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
903	Flowering dogwood	0.1	2.4	0.4	1.2	0.1	0.1	0.00	0.10	0.00	0.30	0.00	0.12	0.02	0.99	1.01
904	Flowering dogwood	0.1	2.4	0.4	1.2	0.1	0.1	0.00	0.10	0.00	0.30	0.00	0.12	0.02	0.99	1.01
905	Flowering dogwood	0.1	2.4	0.4	1.2	0.1	0.1	0.00	0.10	0.00	0.30	0.00	0.12	0.02	0.99	1.01
906	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
907	Callery pear	0.1	1.7	0.3	0.8	0.0	0.0	0.00	0.07	0.00	0.21	0.00	0.08	0.00	0.00	0.00
908	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
909	Callery pear	0.1	1.7	0.3	0.8	0.0	0.0	0.00	0.07	0.00	0.21	0.00	0.08	0.00	0.00	0.00
910	Tulip tree	0.7	12.7	2.0	5.7	0.3	0.3	0.03	0.50	0.01	1.44	0.00	0.55	0.10	0.65	0.75
911	Callery pear	0.1	1.7	0.3	0.8	0.0	0.0	0.00	0.07	0.00	0.21	0.00	0.08	0.00	0.00	0.00
912	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
913	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
914	Callery pear	0.2	3.7	0.6	1.6	0.1	0.1	0.01	0.15	0.00	0.41	0.00	0.16	0.00	0.00	0.00
915	Tulip tree	0.8	14.0	2.2	7.2	0.4	0.4	0.03	0.56	0.01	1.81	0.00	0.70	0.11	0.72	0.83
916	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
917	London plane	0.7	11.3	1.7	6.3	0.3	0.3	0.02	0.45	0.01	1.59	0.00	0.61	30.82	0.29	31.11
918	London plane	0.4	6.4	1.0	3.9	0.2	0.2	0.01	0.25	0.01	0.96	0.00	0.37	17.42	0.16	17.58
919	Callery pear	0.1	2.1	0.3	0.9	0.1	0.0	0.00	0.08	0.00	0.23	0.00	0.09	0.00	0.00	0.00
921	Scarlet oak	0.5	9.0	1.4	5.0	0.2	0.3	0.02	0.36	0.01	1.26	0.00	0.49	47.30	0.45	47.74
922	Scarlet oak	1.2	21.5	3.3	9.0	0.5	0.5	0.04	0.86	0.02	2.24	0.00	0.86	113.12	1.07	114.19
923	Sweetgum	0.4	6.2	1.0	4.2	0.2	0.2	0.01	0.25	0.00	1.06	0.00	0.41	34.56	4.83	39.40
924	Sweetgum	0.4	7.8	1.2	4.9	0.2	0.3	0.02	0.31	0.01	1.22	0.00	0.47	43.07	6.02	49.10
927	Callery pear	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.00	0.00
928	Common crapemyrtle	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.00	0.00
929	Common crapemyrtle	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.00	0.00
930	Common crapemyrtle	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.00	0.00
931	Northern red oak	0.6	10.9	1.7	4.2	0.3	0.2	0.02	0.43	0.01	1.06	0.00	0.41	57.30	0.54	57.85
932	Northern red oak	0.2	4.3	0.7	1.7	0.1	0.1	0.01	0.17	0.00	0.42	0.00	0.16	22.48	0.21	22.70
933	Callery pear	0.6	9.7	1.5	4.1	0.2	0.2	0.02	0.39	0.01	1.03	0.00	0.40	0.00	0.00	0.00
934	Callery pear	0.5	9.1	1.4	3.9	0.2	0.2	0.02	0.36	0.01	0.99	0.00	0.38	0.00	0.00	0.00
935	Northern red oak	0.6	10.4	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.92	0.00	0.36	54.54	0.52	55.06
936	Callery pear	0.2	4.0	0.6	1.7	0.1	0.1	0.01	0.16	0.00	0.42	0.00	0.16	0.00	0.00	0.00
937	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
938	Tulip tree	0.9	15.8	2.4	6.8	0.4	0.3	0.03	0.63	0.01	1.69	0.00	0.65	0.12	0.82	0.94
939	Tulip tree	0.9	15.8	2.5	7.0	0.4	0.4	0.03	0.63	0.01	1.76	0.00	0.68	0.12	0.82	0.94
940	Tulip tree	0.8	13.7	2.1	6.1	0.4	0.3	0.03	0.54	0.01	1.52	0.00	0.59	0.11	0.71	0.81
941	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
942	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
943	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
944	Tulip tree	0.8	14.0	2.2	7.2	0.4	0.4	0.03	0.56	0.01	1.81	0.00	0.70	0.11	0.72	0.83
945	Tulip tree	0.9	15.8	2.4	6.8	0.4	0.3	0.03	0.63	0.01	1.69	0.00	0.65	0.12	0.82	0.94

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
946	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
947	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
948	Caucasian ash	0.1	1.5	0.2	0.7	0.0	0.0	0.00	0.06	0.00	0.18	0.00	0.07	0.01	0.04	0.05
949	Caucasian ash	0.1	1.5	0.2	0.7	0.0	0.0	0.00	0.06	0.00	0.18	0.00	0.07	0.01	0.04	0.05
951	Sweetgum	0.4	6.3	1.0	5.3	0.2	0.3	0.01	0.25	0.00	1.33	0.00	0.51	35.02	4.90	39.92
952	Sweetgum	0.3	5.9	0.9	4.3	0.2	0.2	0.01	0.24	0.00	1.08	0.00	0.42	32.88	4.60	37.48
953	Chinese elm	1.7	29.2	4.5	6.6	0.7	0.3	0.06	1.16	0.02	1.64	0.00	0.63	0.23	0.76	0.98
954	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
955	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
956	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
957	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
958	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
959	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
960	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
961	Northern red oak	0.1	1.3	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	6.95	0.07	7.02
962	Sweetgum	0.5	7.8	1.2	5.1	0.2	0.3	0.02	0.31	0.01	1.28	0.00	0.49	43.23	6.05	49.27
963	Sweetgum	0.4	7.4	1.1	5.7	0.2	0.3	0.02	0.29	0.01	1.44	0.00	0.55	40.78	5.70	46.48
964	Scarlet oak	0.6	10.8	1.7	4.7	0.3	0.2	0.02	0.43	0.01	1.18	0.00	0.45	57.07	0.54	57.61
965	Scarlet oak	0.6	10.8	1.7	4.7	0.3	0.2	0.02	0.43	0.01	1.18	0.00	0.45	57.07	0.54	57.61
966	Scarlet oak	0.5	8.6	1.3	4.1	0.2	0.2	0.02	0.34	0.01	1.03	0.00	0.40	45.20	0.43	45.63
967	Scarlet oak	2.1	36.3	5.6	15.1	0.9	0.8	0.07	1.45	0.03	3.79	0.00	1.46	191.19	1.81	193.00
968	London plane	3.6	62.0	9.6	33.8	1.6	1.7	0.13	2.47	0.05	8.47	0.00	3.26	169.40	1.60	171.00
969	London plane	0.1	1.5	0.2	1.0	0.0	0.1	0.00	0.06	0.00	0.26	0.00	0.10	4.23	0.04	4.27
970	London plane	3.4	58.1	9.0	31.7	1.5	1.6	0.12	2.31	0.05	7.94	0.00	3.06	158.64	1.50	160.14
973	Sweetgum	0.4	7.8	1.2	4.9	0.2	0.3	0.02	0.31	0.01	1.22	0.00	0.47	43.07	6.02	49.10
974	Sweetgum	0.3	5.5	0.9	3.5	0.1	0.2	0.01	0.22	0.00	0.88	0.00	0.34	30.74	4.30	35.04
975	London plane	1.3	22.7	3.5	12.8	0.6	0.7	0.05	0.90	0.02	3.20	0.00	1.23	61.90	0.59	62.49
976	London plane	0.1	1.8	0.3	1.9	0.0	0.1	0.00	0.07	0.00	0.48	0.00	0.19	4.84	0.05	4.89
977	London plane	0.4	6.9	1.1	4.5	0.2	0.2	0.01	0.27	0.01	1.12	0.00	0.43	18.76	0.18	18.94
978	London plane	0.1	2.3	0.3	1.6	0.1	0.1	0.00	0.09	0.00	0.40	0.00	0.16	6.16	0.06	6.22
979	London plane	0.5	9.4	1.5	6.6	0.2	0.3	0.02	0.37	0.01	1.65	0.00	0.64	25.62	0.24	25.87
980	London plane	0.2	2.9	0.4	1.9	0.1	0.1	0.01	0.11	0.00	0.47	0.00	0.18	7.86	0.07	7.94
981	London plane	0.1	1.1	0.2	0.8	0.0	0.0	0.00	0.04	0.00	0.21	0.00	0.08	2.91	0.03	2.94
982	London plane	0.1	1.8	0.3	1.4	0.0	0.1	0.00	0.07	0.00	0.36	0.00	0.14	4.96	0.05	5.01
983	Modesto ash	1.4	23.8	3.7	9.7	0.6	0.5	0.05	0.95	0.02	2.43	0.00	0.94	0.19	0.61	0.80
985	Camphor tree	0.4	6.7	1.0	2.9	0.2	0.1	0.01	0.27	0.01	0.72	0.00	0.28	0.00	0.00	0.00
987	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
988	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
989	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
990	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
991	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
992	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
993	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
994	Black locust	0.2	2.8	0.4	1.6	0.1	0.1	0.01	0.11	0.00	0.41	0.00	0.16	3.01	0.14	3.16
995	Chinese pistache	0.9	16.4	2.5	5.7	0.4	0.3	0.03	0.65	0.01	1.44	0.00	0.55	0.00	33.50	33.50

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
996	Chinese pistache	0.9	16.4	2.5	5.7	0.4	0.3	0.03	0.65	0.01	1.44	0.00	0.55	0.00	33.50	33.50
998	Tulip tree	0.9	15.8	2.5	7.0	0.4	0.4	0.03	0.63	0.01	1.76	0.00	0.68	0.12	0.82	0.94
999	Tulip tree	0.9	15.8	2.4	6.8	0.4	0.3	0.03	0.63	0.01	1.69	0.00	0.65	0.12	0.82	0.94
1002	London plane	0.7	12.1	1.9	6.7	0.3	0.3	0.02	0.48	0.01	1.67	0.00	0.64	32.96	0.31	33.27
1003	Camphor tree	0.4	6.7	1.0	2.9	0.2	0.1	0.01	0.27	0.01	0.72	0.00	0.28	0.00	0.00	0.00
1004	Camphor tree	0.4	6.7	1.0	2.9	0.2	0.1	0.01	0.27	0.01	0.72	0.00	0.28	0.00	0.00	0.00
1005	Camphor tree	0.2	3.6	0.6	1.8	0.1	0.1	0.01	0.14	0.00	0.45	0.00	0.17	0.00	0.00	0.00
1006	Camphor tree	0.1	1.6	0.2	0.9	0.0	0.0	0.00	0.06	0.00	0.22	0.00	0.08	0.00	0.00	0.00
1007	Camphor tree	0.2	3.6	0.6	1.8	0.1	0.1	0.01	0.14	0.00	0.45	0.00	0.17	0.00	0.00	0.00
1009	Northern red oak	0.6	10.4	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.92	0.00	0.36	54.54	0.52	55.06
1011	Sweetgum	0.2	3.8	0.6	2.8	0.1	0.1	0.01	0.15	0.00	0.69	0.00	0.27	20.79	2.91	23.69
1012	Chinese pistache	1.4	24.5	3.8	9.1	0.6	0.5	0.05	0.98	0.02	2.29	0.00	0.88	0.00	49.99	49.99
1016	Northern red oak	0.6	9.7	1.5	3.5	0.2	0.2	0.02	0.39	0.01	0.88	0.00	0.34	51.22	0.49	51.71
1017	Scarlet oak	0.5	8.3	1.3	3.8	0.2	0.2	0.02	0.33	0.01	0.95	0.00	0.37	43.75	0.41	44.16
1018	Scarlet oak	0.5	8.6	1.3	4.1	0.2	0.2	0.02	0.34	0.01	1.03	0.00	0.40	45.20	0.43	45.63
1019	Scarlet oak	0.4	7.6	1.2	3.6	0.2	0.2	0.02	0.30	0.01	0.90	0.00	0.35	39.76	0.38	40.14
1022	Japanese zelkova	0.5	8.1	1.3	3.3	0.2	0.2	0.02	0.32	0.01	0.82	0.00	0.31	0.06	0.42	0.48
1023	Japanese zelkova	0.6	9.8	1.5	4.1	0.3	0.2	0.02	0.39	0.01	1.03	0.00	0.40	0.08	0.51	0.58
1024	Japanese zelkova	0.6	10.5	1.6	4.3	0.3	0.2	0.02	0.42	0.01	1.08	0.00	0.42	0.08	0.54	0.63
1025	Chinese pistache	1.4	24.5	3.8	9.1	0.6	0.5	0.05	0.98	0.02	2.29	0.00	0.88	0.00	49.99	49.99
1026	Chinese pistache	0.6	11.1	1.7	4.4	0.3	0.2	0.02	0.44	0.01	1.10	0.00	0.43	0.00	22.69	22.69
1027	Chinese pistache	0.6	11.1	1.7	4.4	0.3	0.2	0.02	0.44	0.01	1.10	0.00	0.43	0.00	22.69	22.69
1028	Scarlet oak	0.5	9.4	1.5	4.1	0.2	0.2	0.02	0.37	0.01	1.03	0.00	0.39	49.56	0.47	50.03
1029	Chinese pistache	0.7	11.7	1.8	4.1	0.3	0.2	0.02	0.47	0.01	1.04	0.00	0.40	0.00	23.91	23.91
1030	Chinese pistache	0.9	16.4	2.5	5.7	0.4	0.3	0.03	0.65	0.01	1.44	0.00	0.55	0.00	33.50	33.50
1031	Chinese pistache	0.9	16.4	2.5	5.7	0.4	0.3	0.03	0.65	0.01	1.44	0.00	0.55	0.00	33.50	33.50
1032	Chinese pistache	0.8	13.3	2.1	5.0	0.3	0.3	0.03	0.53	0.01	1.24	0.00	0.48	0.00	27.16	27.16
1033	Sweetgum	0.3	4.8	0.7	3.0	0.1	0.2	0.01	0.19	0.00	0.76	0.00	0.29	26.76	3.74	30.50
1034	Sweetgum	0.3	4.8	0.7	3.0	0.1	0.2	0.01	0.19	0.00	0.76	0.00	0.29	26.76	3.74	30.50
1035	Sweetgum	0.4	6.5	1.0	3.7	0.2	0.2	0.01	0.26	0.01	0.93	0.00	0.36	36.22	5.07	41.28
1036	Sweetgum	0.3	5.6	0.9	3.3	0.1	0.2	0.01	0.22	0.00	0.84	0.00	0.32	31.13	4.35	35.49
1037	Modesto ash	0.5	8.6	1.3	3.5	0.2	0.2	0.02	0.34	0.01	0.88	0.00	0.34	0.07	0.22	0.29
1038	Scarlet oak	0.5	9.4	1.5	4.1	0.2	0.2	0.02	0.37	0.01	1.03	0.00	0.39	49.56	0.47	50.03
1039	White mulberry	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.13	0.00	0.05	0.01	0.06	0.07
1040	Oleander	0.1	1.4	0.2	0.3	0.0	0.0	0.00	0.05	0.00	0.07	0.00	0.03	0.01	0.05	0.06
1041	Hind walnut	0.0	0.4	0.1	0.3	0.0	0.0	0.00	0.02	0.00	0.09	0.00	0.03	0.00	0.32	0.32
1042	Scarlet oak	0.5	9.4	1.5	4.3	0.2	0.2	0.02	0.38	0.01	1.09	0.00	0.42	49.68	0.47	50.15
1043	Scarlet oak	1.2	21.5	3.3	9.0	0.5	0.5	0.04	0.86	0.02	2.24	0.00	0.86	113.12	1.07	114.19
1044	Scarlet oak	0.5	8.8	1.4	3.9	0.2	0.2	0.02	0.35	0.01	0.98	0.00	0.38	46.13	0.44	46.57
1045	Scarlet oak	0.5	8.8	1.4	3.9	0.2	0.2	0.02	0.35	0.01	0.98	0.00	0.38	46.13	0.44	46.57
1046	Northern red oak	0.6	10.4	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.92	0.00	0.36	54.54	0.52	55.06
1047	Northern red oak	0.6	10.4	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.92	0.00	0.36	54.54	0.52	55.06
1048	Callery pear	0.1	1.6	0.3	0.8	0.0	0.0	0.00	0.06	0.00	0.20	0.00	0.08	0.00	0.00	0.00
1049	Callery pear	0.1	1.6	0.3	0.8	0.0	0.0	0.00	0.06	0.00	0.20	0.00	0.08	0.00	0.00	0.00
1050	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1051	Callery pear	0.1	1.6	0.3	0.8	0.0	0.0	0.00	0.06	0.00	0.20	0.00	0.08	0.00	0.00	0.00
1052	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88
1053	Callery pear	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.03	0.00	0.01	0.00	0.00	0.00
1054	Callery pear	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.10	0.00	0.04	0.00	0.00	0.00
1055	Northern red oak	0.2	4.2	0.7	1.7	0.1	0.1	0.01	0.17	0.00	0.42	0.00	0.16	22.08	0.21	22.29
1056	Sweetgum	0.1	2.4	0.4	1.7	0.1	0.1	0.00	0.09	0.00	0.41	0.00	0.16	13.10	1.83	14.94
1057	Sweetgum	0.1	1.1	0.2	0.9	0.0	0.0	0.00	0.04	0.00	0.21	0.00	0.08	6.00	0.84	6.84
1058	Sweetgum	0.3	5.5	0.9	3.5	0.1	0.2	0.01	0.22	0.00	0.88	0.00	0.34	30.74	4.30	35.04
1059	Sweetgum	0.4	7.8	1.2	4.9	0.2	0.3	0.02	0.31	0.01	1.22	0.00	0.47	43.07	6.02	49.10
1060	Sweetgum	0.3	6.0	0.9	4.1	0.2	0.2	0.01	0.24	0.00	1.04	0.00	0.40	33.46	4.68	38.14
1061	Sweetgum	0.3	5.8	0.9	4.0	0.1	0.2	0.01	0.23	0.00	1.01	0.00	0.39	32.02	4.48	36.50
1062	Sweetgum	0.1	1.6	0.3	1.3	0.0	0.1	0.00	0.07	0.00	0.34	0.00	0.13	9.06	1.27	10.33
1063	Sweetgum	0.3	4.4	0.7	3.0	0.1	0.2	0.01	0.17	0.00	0.75	0.00	0.29	24.15	3.38	27.53
1064	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1065	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1066	Northern red oak	0.3	4.8	0.7	1.8	0.1	0.1	0.01	0.19	0.00	0.46	0.00	0.18	25.36	0.24	25.60
1067	Callery pear	0.1	0.9	0.1	0.4	0.0	0.0	0.00	0.04	0.00	0.11	0.00	0.04	0.00	0.00	0.00
1068	Callery pear	0.1	0.9	0.1	0.4	0.0	0.0	0.00	0.04	0.00	0.11	0.00	0.04	0.00	0.00	0.00
1069	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88
1070	Callery pear	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.10	0.00	0.04	0.00	0.00	0.00
1071	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88
1072	Callery pear	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.10	0.00	0.04	0.00	0.00	0.00
1073	Callery pear	0.1	1.6	0.3	0.8	0.0	0.0	0.00	0.06	0.00	0.20	0.00	0.08	0.00	0.00	0.00
1074	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88
1075	Northern red oak	0.1	1.5	0.2	0.8	0.0	0.0	0.00	0.06	0.00	0.19	0.00	0.07	7.85	0.07	7.93
1076	Sweetgum	0.4	7.3	1.1	4.9	0.2	0.3	0.01	0.29	0.01	1.22	0.00	0.47	40.23	5.63	45.85
1077	Sweetgum	0.3	6.0	0.9	5.2	0.2	0.3	0.01	0.24	0.00	1.30	0.00	0.50	33.34	4.66	38.00
1078	Callery pear	0.1	1.0	0.2	0.5	0.0	0.0	0.00	0.04	0.00	0.12	0.00	0.04	0.00	0.00	0.00
1079	Callery pear	0.1	1.0	0.2	0.5	0.0	0.0	0.00	0.04	0.00	0.12	0.00	0.04	0.00	0.00	0.00
1080	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
1081	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
1082	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
1083	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
1084	Callery pear	0.3	4.6	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.00	0.00	0.00
1088	Tulip tree	0.9	15.8	2.4	6.8	0.4	0.3	0.03	0.63	0.01	1.69	0.00	0.65	0.12	0.82	0.94
1090	Common crapemyrtle	0.0	0.2	0.0	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.00	0.00	0.00
1091	Tulip tree	0.3	5.6	0.9	2.5	0.1	0.1	0.01	0.22	0.00	0.62	0.00	0.24	0.04	0.29	0.33
1092	Tulip tree	0.1	2.6	0.4	1.2	0.1	0.1	0.01	0.10	0.00	0.31	0.00	0.12	0.02	0.13	0.15
1093	Sweetgum	0.4	6.5	1.0	5.4	0.2	0.3	0.01	0.26	0.01	1.34	0.00	0.52	35.82	5.01	40.83
1094	Common crapemyrtle	0.1	1.0	0.2	0.5	0.0	0.0	0.00	0.04	0.00	0.12	0.00	0.04	0.00	0.00	0.00
1095	Cherry plum	0.1	1.6	0.3	0.9	0.0	0.0	0.00	0.07	0.00	0.23	0.00	0.09	0.01	0.04	0.06
1096	London plane	0.3	5.8	0.9	3.6	0.1	0.2	0.01	0.23	0.00	0.91	0.00	0.35	15.89	0.15	16.04
1097	London plane	0.6	9.7	1.5	5.7	0.2	0.3	0.02	0.39	0.01	1.42	0.00	0.55	26.55	0.25	26.80
1098	London plane	0.3	5.2	0.8	3.4	0.1	0.2	0.01	0.21	0.00	0.84	0.00	0.32	14.17	0.13	14.30
1099	London plane	0.3	5.2	0.8	3.4	0.1	0.2	0.01	0.21	0.00	0.84	0.00	0.32	14.17	0.13	14.30

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1101	London plane	0.6	9.8	1.5	5.7	0.3	0.3	0.02	0.39	0.01	1.43	0.00	0.55	26.73	0.25	26.98
1102	Tulip tree	0.9	14.7	2.3	6.4	0.4	0.3	0.03	0.59	0.01	1.60	0.00	0.62	0.11	0.76	0.87
1103	Japanese zelkova	0.5	8.1	1.3	3.3	0.2	0.2	0.02	0.32	0.01	0.82	0.00	0.31	0.06	0.42	0.48
1104	Sweetgum	0.4	6.7	1.0	4.4	0.2	0.2	0.01	0.27	0.01	1.11	0.00	0.43	37.35	5.22	42.57
1105	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88
1106	Northern red oak	0.8	13.5	2.1	4.9	0.3	0.3	0.03	0.54	0.01	1.22	0.00	0.47	71.21	0.68	71.88
1107	Camphor tree	0.2	3.3	0.5	1.7	0.1	0.1	0.01	0.13	0.00	0.43	0.00	0.16	0.00	0.00	0.00
1108	Chinese pistache	0.0	0.3	0.1	0.2	0.0	0.0	0.00	0.01	0.00	0.04	0.00	0.02	0.00	0.71	0.71
1109	Camphor tree	0.5	8.0	1.2	3.5	0.2	0.2	0.02	0.32	0.01	0.87	0.00	0.33	0.00	0.00	0.00
1110	Chinese pistache	0.6	11.0	1.7	3.9	0.3	0.2	0.02	0.44	0.01	0.99	0.00	0.38	0.00	22.36	22.36
1111	Chinese pistache	0.6	11.0	1.7	3.9	0.3	0.2	0.02	0.44	0.01	0.99	0.00	0.38	0.00	22.36	22.36
1112	Chinese pistache	1.5	25.8	4.0	9.8	0.7	0.5	0.05	1.03	0.02	2.45	0.00	0.94	0.00	52.56	52.56
1113	Chinese pistache	1.5	25.8	4.0	9.8	0.7	0.5	0.05	1.03	0.02	2.45	0.00	0.94	0.00	52.56	52.56
1114	Chinese pistache	1.5	25.8	4.0	9.8	0.7	0.5	0.05	1.03	0.02	2.45	0.00	0.94	0.00	52.56	52.56
1117	Camphor tree	0.5	8.7	1.3	3.6	0.2	0.2	0.02	0.35	0.01	0.91	0.00	0.35	0.00	0.00	0.00
1118	Camphor tree	0.3	5.8	0.9	2.6	0.1	0.1	0.01	0.23	0.00	0.65	0.00	0.25	0.00	0.00	0.00
1119	Camphor tree	0.3	5.8	0.9	2.6	0.1	0.1	0.01	0.23	0.00	0.65	0.00	0.25	0.00	0.00	0.00
1120	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1121	Tulip tree	0.0	0.5	0.1	0.3	0.0	0.0	0.00	0.02	0.00	0.06	0.00	0.02	0.00	0.03	0.03
1122	Tulip tree	0.0	0.5	0.1	0.3	0.0	0.0	0.00	0.02	0.00	0.06	0.00	0.02	0.00	0.03	0.03
1123	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1124	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1128	Chinese pistache	1.0	16.5	2.6	6.0	0.4	0.3	0.03	0.66	0.01	1.50	0.00	0.58	0.00	33.62	33.62
1132	Modesto ash	0.1	1.5	0.2	0.8	0.0	0.0	0.00	0.06	0.00	0.21	0.00	0.08	0.01	0.04	0.05
1133	English walnut	0.1	1.5	0.2	1.0	0.0	0.0	0.00	0.06	0.00	0.24	0.00	0.09	0.01	1.14	1.15
1134	London plane	0.1	2.0	0.3	1.5	0.1	0.1	0.00	0.08	0.00	0.38	0.00	0.15	5.55	0.05	5.61
1135	London plane	1.6	27.4	4.2	14.7	0.7	0.8	0.06	1.09	0.02	3.69	0.00	1.42	74.81	0.71	75.51
1136	London plane	1.6	27.4	4.2	14.7	0.7	0.8	0.06	1.09	0.02	3.69	0.00	1.42	74.81	0.71	75.51
1137	London plane	1.6	27.4	4.2	14.7	0.7	0.8	0.06	1.09	0.02	3.69	0.00	1.42	74.81	0.71	75.51
1138	London plane	0.8	13.6	2.1	7.3	0.3	0.4	0.03	0.54	0.01	1.83	0.00	0.71	37.24	0.35	37.60
1139	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1140	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1141	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1142	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1143	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1144	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1145	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1146	London plane	0.8	13.6	2.1	7.3	0.3	0.4	0.03	0.54	0.01	1.83	0.00	0.71	37.24	0.35	37.60
1147	London plane	0.8	13.6	2.1	7.3	0.3	0.4	0.03	0.54	0.01	1.83	0.00	0.71	37.24	0.35	37.60
1148	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1149	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1150	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1151	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1152	London plane	0.8	13.6	2.1	7.3	0.3	0.4	0.03	0.54	0.01	1.83	0.00	0.71	37.24	0.35	37.60
1153	London plane	0.8	13.6	2.1	7.3	0.3	0.4	0.03	0.54	0.01	1.83	0.00	0.71	37.24	0.35	37.60

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1154	London plane	0.8	13.6	2.1	7.3	0.3	0.4	0.03	0.54	0.01	1.83	0.00	0.71	37.24	0.35	37.60
1155	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1156	London plane	0.7	12.7	2.0	6.9	0.3	0.4	0.03	0.51	0.01	1.73	0.00	0.67	34.71	0.33	35.04
1157	Modesto ash	0.1	1.7	0.3	0.9	0.0	0.0	0.00	0.07	0.00	0.21	0.00	0.08	0.01	0.04	0.06
1158	Modesto ash	0.6	9.7	1.5	4.2	0.2	0.2	0.02	0.39	0.01	1.06	0.00	0.41	0.08	0.25	0.33
1160	Modesto ash	0.5	9.2	1.4	3.7	0.2	0.2	0.02	0.37	0.01	0.92	0.00	0.35	0.07	0.24	0.31
1161	Modesto ash	0.4	7.2	1.1	3.1	0.2	0.2	0.01	0.29	0.01	0.78	0.00	0.30	0.06	0.19	0.24
1162	Sweetgum	0.0	0.7	0.1	0.5	0.0	0.0	0.00	0.03	0.00	0.12	0.00	0.05	3.77	0.53	4.29
1163	Sweetgum	0.0	0.7	0.1	0.5	0.0	0.0	0.00	0.03	0.00	0.12	0.00	0.05	3.77	0.53	4.29
1164	Sweetgum	0.0	0.7	0.1	0.5	0.0	0.0	0.00	0.03	0.00	0.12	0.00	0.05	3.77	0.53	4.29
1165	London plane	0.3	5.8	0.9	3.6	0.1	0.2	0.01	0.23	0.00	0.91	0.00	0.35	15.89	0.15	16.04
1166	California palm	0.4	6.3	1.0	1.0	0.2	0.1	0.01	0.25	0.00	0.24	0.00	0.09	5.25	0.13	5.38
1167	Sweetgum	0.2	3.1	0.5	2.0	0.1	0.1	0.01	0.12	0.00	0.49	0.00	0.19	17.36	2.43	19.79
1168	Sweetgum	0.1	1.4	0.2	1.0	0.0	0.1	0.00	0.06	0.00	0.25	0.00	0.10	7.96	1.11	9.07
1169	Sweetgum	0.0	0.7	0.1	0.5	0.0	0.0	0.00	0.03	0.00	0.12	0.00	0.05	3.77	0.53	4.29
1170	Sweetgum	1.1	18.5	2.9	11.0	0.5	0.6	0.04	0.74	0.01	2.76	0.00	1.06	102.59	14.35	116.94
1171	Cherry plum	0.0	0.7	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.02	0.02
1177	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1178	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1179	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1180	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1181	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1182	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1185	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1186	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1187	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1188	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1189	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1190	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1191	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1192	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1193	Sweetgum	0.4	7.3	1.1	4.6	0.2	0.2	0.01	0.29	0.01	1.16	0.00	0.45	40.17	5.62	45.78
1194	Chinese hackberry	0.1	2.1	0.3	1.0	0.1	0.1	0.00	0.08	0.00	0.25	0.00	0.09	0.02	0.11	0.13
1195	Sweetgum	0.1	1.4	0.2	1.0	0.0	0.1	0.00	0.06	0.00	0.25	0.00	0.10	7.96	1.11	9.07
1196	Modesto ash	0.5	8.6	1.3	3.5	0.2	0.2	0.02	0.34	0.01	0.88	0.00	0.34	0.07	0.22	0.29
1197	Chinese pistache	0.7	12.5	1.9	4.3	0.3	0.2	0.03	0.50	0.01	1.08	0.00	0.42	0.00	25.46	25.46
1198	Chinese pistache	0.2	2.8	0.4	1.1	0.1	0.1	0.01	0.11	0.00	0.28	0.00	0.11	0.00	5.78	5.78
1199	Chinese pistache	0.2	2.8	0.4	1.1	0.1	0.1	0.01	0.11	0.00	0.28	0.00	0.11	0.00	5.78	5.78
1200	Chinese pistache	0.2	2.8	0.4	1.1	0.1	0.1	0.01	0.11	0.00	0.28	0.00	0.11	0.00	5.78	5.78
1201	Chinese pistache	0.2	2.8	0.4	1.1	0.1	0.1	0.01	0.11	0.00	0.28	0.00	0.11	0.00	5.78	5.78
1202	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1203	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1204	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1205	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1206	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1207	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1208	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1209	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1210	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1211	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1212	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1213	London plane	0.2	3.4	0.5	2.1	0.1	0.1	0.01	0.14	0.00	0.53	0.00	0.20	9.39	0.09	9.48
1214	Sweetgum	0.3	5.9	0.9	3.7	0.2	0.2	0.01	0.24	0.00	0.92	0.00	0.35	32.88	4.60	37.48
1215	Sweetgum	0.3	5.9	0.9	3.7	0.2	0.2	0.01	0.24	0.00	0.92	0.00	0.35	32.88	4.60	37.48
1216	Sweetgum	0.3	5.9	0.9	3.7	0.2	0.2	0.01	0.24	0.00	0.92	0.00	0.35	32.88	4.60	37.48
1217	Sweetgum	0.3	5.9	0.9	3.7	0.2	0.2	0.01	0.24	0.00	0.92	0.00	0.35	32.88	4.60	37.48
1219	Tulip tree	0.1	2.2	0.3	1.1	0.1	0.1	0.00	0.09	0.00	0.28	0.00	0.11	0.02	0.11	0.13
1220	Tulip tree	0.1	2.2	0.3	1.1	0.1	0.1	0.00	0.09	0.00	0.28	0.00	0.11	0.02	0.11	0.13
1221	Tulip tree	0.1	2.2	0.3	1.1	0.1	0.1	0.00	0.09	0.00	0.28	0.00	0.11	0.02	0.11	0.13
1222	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1223	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1224	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1225	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1226	Northern red oak	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.12	0.00	0.05	6.22	0.06	6.28
1228	Northern red oak	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.12	0.00	0.05	6.22	0.06	6.28
1229	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1230	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1232	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1233	Modesto ash	0.2	3.1	0.5	1.5	0.1	0.1	0.01	0.12	0.00	0.37	0.00	0.14	0.02	0.08	0.10
1234	Modesto ash	0.2	3.1	0.5	1.5	0.1	0.1	0.01	0.12	0.00	0.37	0.00	0.14	0.02	0.08	0.10
1236	Common crapemyrtle	0.1	1.3	0.2	0.6	0.0	0.0	0.00	0.05	0.00	0.14	0.00	0.05	0.00	0.00	0.00
1244	London plane	0.1	1.3	0.2	1.0	0.0	0.0	0.00	0.05	0.00	0.24	0.00	0.09	3.61	0.03	3.64
1249	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1250	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1251	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1252	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1253	Ginkgo	0.2	3.0	0.5	2.0	0.1	0.1	0.01	0.12	0.00	0.50	0.00	0.19	0.00	2.33	2.33
1254	Ginkgo	0.2	3.0	0.5	2.0	0.1	0.1	0.01	0.12	0.00	0.50	0.00	0.19	0.00	2.33	2.33
1255	Ginkgo	0.2	3.0	0.5	2.0	0.1	0.1	0.01	0.12	0.00	0.50	0.00	0.19	0.00	2.33	2.33
1256	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1257	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1259	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1260	Northern red oak	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.12	0.00	0.05	6.22	0.06	6.28
1261	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1262	Northern red oak	0.1	1.2	0.2	0.5	0.0	0.0	0.00	0.05	0.00	0.12	0.00	0.05	6.22	0.06	6.28
1263	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1264	Callery pear	0.1	2.2	0.3	1.0	0.1	0.1	0.00	0.09	0.00	0.24	0.00	0.09	0.00	0.00	0.00
1265	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1266	Norway maple	0.0	0.8	0.1	0.4	0.0	0.0	0.00	0.03	0.00	0.11	0.00	0.04	0.01	0.34	0.34
1267	Camphor tree	0.8	13.3	2.1	5.5	0.3	0.3	0.03	0.53	0.01	1.37	0.00	0.53	0.00	0.00	0.00

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1268	Camphor tree	0.3	5.8	0.9	2.6	0.1	0.1	0.01	0.23	0.00	0.65	0.00	0.25	0.00	0.00	0.00
1269	Camphor tree	0.3	5.8	0.9	2.6	0.1	0.1	0.01	0.23	0.00	0.65	0.00	0.25	0.00	0.00	0.00
1270	Camphor tree	0.5	8.7	1.3	3.6	0.2	0.2	0.02	0.35	0.01	0.91	0.00	0.35	0.00	0.00	0.00
1271	Scarlet oak	0.2	3.3	0.5	1.5	0.1	0.1	0.01	0.13	0.00	0.39	0.00	0.15	17.48	0.17	17.65
1273	White mulberry	0.3	4.4	0.7	1.8	0.1	0.1	0.01	0.18	0.00	0.46	0.00	0.18	0.03	0.23	0.26
1274	Northern catalpa	0.1	1.7	0.3	1.2	0.0	0.1	0.00	0.07	0.00	0.30	0.00	0.12	0.13	0.09	0.22
1276	London plane	0.2	3.7	0.6	2.2	0.1	0.1	0.01	0.15	0.00	0.56	0.00	0.21	10.14	0.10	10.24
1277	California palm	0.0	0.4	0.1	0.1	0.0	0.0	0.00	0.01	0.00	0.02	0.00	0.01	0.30	0.01	0.30
1283	London plane	1.7	29.3	4.5	16.2	0.8	0.8	0.06	1.17	0.02	4.07	0.00	1.57	80.10	0.76	80.86
1284	London plane	1.1	19.5	3.0	11.4	0.5	0.6	0.04	0.78	0.02	2.87	0.00	1.10	53.32	0.50	53.82
1285	London plane	0.1	1.4	0.2	1.2	0.0	0.1	0.00	0.06	0.00	0.31	0.00	0.12	3.79	0.04	3.82
1286	Chinese pistache	0.0	0.3	0.1	0.2	0.0	0.0	0.00	0.01	0.00	0.04	0.00	0.02	0.00	0.71	0.71
1287	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1288	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1289	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1290	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1291	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1292	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1293	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1294	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1295	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1296	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1298	London plane	0.7	11.3	1.7	6.3	0.3	0.3	0.02	0.45	0.01	1.58	0.00	0.61	30.73	0.29	31.02
1299	Callery pear	0.1	1.1	0.2	0.5	0.0	0.0	0.00	0.04	0.00	0.12	0.00	0.05	0.00	0.00	0.00
1300	Callery pear	0.1	1.1	0.2	0.5	0.0	0.0	0.00	0.04	0.00	0.12	0.00	0.05	0.00	0.00	0.00
1301	Sweetgum	0.4	6.3	1.0	3.8	0.2	0.2	0.01	0.25	0.00	0.96	0.00	0.37	35.02	4.90	39.92
1302	Sweetgum	0.4	6.3	1.0	3.8	0.2	0.2	0.01	0.25	0.00	0.96	0.00	0.37	35.02	4.90	39.92
1307	Scarlet oak	0.1	2.6	0.4	1.3	0.1	0.1	0.01	0.10	0.00	0.34	0.00	0.13	13.58	0.13	13.71
1308	Scarlet oak	0.1	2.6	0.4	1.3	0.1	0.1	0.01	0.10	0.00	0.34	0.00	0.13	13.58	0.13	13.71
1309	Scarlet oak	0.1	2.6	0.4	1.3	0.1	0.1	0.01	0.10	0.00	0.34	0.00	0.13	13.58	0.13	13.71
1310	Callery pear	0.5	8.6	1.3	3.4	0.2	0.2	0.02	0.34	0.01	0.85	0.00	0.33	0.00	0.00	0.00
1311	Common crapemyrtle	0.1	1.3	0.2	0.6	0.0	0.0	0.00	0.05	0.00	0.14	0.00	0.05	0.00	0.00	0.00
1314	Cherry plum	0.1	1.1	0.2	0.6	0.0	0.0	0.00	0.04	0.00	0.14	0.00	0.05	0.01	0.03	0.04
1315	Cherry plum	0.1	1.1	0.2	0.6	0.0	0.0	0.00	0.04	0.00	0.14	0.00	0.05	0.01	0.03	0.04
1316	Cherry plum	0.1	1.1	0.2	0.6	0.0	0.0	0.00	0.04	0.00	0.14	0.00	0.05	0.01	0.03	0.04
1318	Japanese zelkova	0.2	4.3	0.7	1.8	0.1	0.1	0.01	0.17	0.00	0.44	0.00	0.17	0.03	0.22	0.25
1319	Japanese zelkova	0.2	4.3	0.7	1.8	0.1	0.1	0.01	0.17	0.00	0.44	0.00	0.17	0.03	0.22	0.25
1320	London plane	0.1	2.3	0.3	1.6	0.1	0.1	0.00	0.09	0.00	0.40	0.00	0.16	6.16	0.06	6.22
1321	London plane	0.5	9.2	1.4	6.5	0.2	0.3	0.02	0.37	0.01	1.63	0.00	0.63	25.08	0.24	25.32
1322	London plane	0.5	9.2	1.4	6.5	0.2	0.3	0.02	0.37	0.01	1.63	0.00	0.63	25.08	0.24	25.32
1323	London plane	0.1	2.3	0.3	1.6	0.1	0.1	0.00	0.09	0.00	0.40	0.00	0.16	6.16	0.06	6.22
1324	Sweetgum	0.2	2.9	0.5	1.9	0.1	0.1	0.01	0.12	0.00	0.47	0.00	0.18	16.29	2.28	18.56
1325	Camphor tree	0.3	5.1	0.8	2.6	0.1	0.1	0.01	0.20	0.00	0.66	0.00	0.25	0.00	0.00	0.00
1326	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1327	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1328	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1329	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1330	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1331	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1332	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1335	London plane	0.3	4.5	0.7	2.6	0.1	0.1	0.01	0.18	0.00	0.64	0.00	0.25	12.40	0.12	12.52
1336	Modesto ash	0.1	2.1	0.3	1.0	0.1	0.0	0.00	0.08	0.00	0.24	0.00	0.09	0.02	0.05	0.07
1337	Ginkgo	0.0	0.3	0.0	0.2	0.0	0.0	0.00	0.01	0.00	0.05	0.00	0.02	0.00	0.20	0.20
1338	Ginkgo	0.0	0.7	0.1	0.5	0.0	0.0	0.00	0.03	0.00	0.12	0.00	0.05	0.00	0.52	0.52
1339	London plane	0.1	2.1	0.3	1.3	0.1	0.1	0.00	0.08	0.00	0.32	0.00	0.12	5.69	0.05	5.74
1340	Ginkgo	0.0	0.3	0.0	0.2	0.0	0.0	0.00	0.01	0.00	0.05	0.00	0.02	0.00	0.20	0.20
1341	Sweetgum	0.3	5.5	0.9	3.5	0.1	0.2	0.01	0.22	0.00	0.88	0.00	0.34	30.74	4.30	35.04
1342	Modesto ash	0.2	3.4	0.5	1.6	0.1	0.1	0.01	0.13	0.00	0.39	0.00	0.15	0.03	0.09	0.11
1343	Modesto ash	0.2	2.8	0.4	1.4	0.1	0.1	0.01	0.11	0.00	0.35	0.00	0.14	0.02	0.07	0.09
1344	Modesto ash	0.5	8.9	1.4	4.0	0.2	0.2	0.02	0.35	0.01	1.00	0.00	0.39	0.07	0.23	0.30
1345	Tulip tree	0.8	14.7	2.3	6.4	0.4	0.3	0.03	0.58	0.01	1.60	0.00	0.62	0.11	0.76	0.87
1346	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.30	0.00	0.50	0.00	29.15	29.15
1347	Black locust	0.4	6.1	0.9	3.3	0.2	0.2	0.01	0.24	0.00	0.84	0.00	0.32	6.62	0.31	6.93
1348	Scarlet oak	0.4	7.2	1.1	3.1	0.2	0.2	0.01	0.29	0.01	0.77	0.00	0.30	37.96	0.36	38.32
1349	Scarlet oak	0.6	9.6	1.5	5.2	0.2	0.3	0.02	0.38	0.01	1.30	0.00	0.50	50.35	0.48	50.83
1350	Chinese pistache	1.0	17.6	2.7	6.3	0.4	0.3	0.04	0.70	0.01	1.57	0.00	0.60	0.00	35.81	35.81
1354	Chinese pistache	0.8	14.3	2.2	5.5	0.4	0.3	0.03	0.57	0.01	1.37	0.00	0.53	0.00	29.26	29.26
1355	Chinese pistache	0.2	3.4	0.5	1.5	0.1	0.1	0.01	0.14	0.00	0.38	0.00	0.15	0.00	7.02	7.02
1356	Chinese pistache	0.6	10.2	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.94	0.00	0.36	0.00	20.80	20.80
1357	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.31	0.00	0.50	0.00	29.19	29.19
1358	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.31	0.00	0.50	0.00	29.19	29.19
1359	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.31	0.00	0.50	0.00	29.19	29.19
1360	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.31	0.00	0.50	0.00	29.19	29.19
1362	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.31	0.00	0.50	0.00	29.19	29.19
1363	Chinese pistache	0.8	14.3	2.2	5.2	0.4	0.3	0.03	0.57	0.01	1.31	0.00	0.50	0.00	29.19	29.19
1364	London plane	0.5	9.4	1.5	6.6	0.2	0.3	0.02	0.37	0.01	1.65	0.00	0.64	25.62	0.24	25.87
1365	Chinese pistache	1.0	16.5	2.6	6.0	0.4	0.3	0.03	0.66	0.01	1.50	0.00	0.58	0.00	33.62	33.62
1366	Chinese pistache	0.9	15.3	2.4	5.5	0.4	0.3	0.03	0.61	0.01	1.37	0.00	0.53	0.00	31.22	31.22
1367	Chinese pistache	0.3	5.1	0.8	1.9	0.1	0.1	0.01	0.20	0.00	0.48	0.00	0.19	0.00	10.31	10.31
1368	Chinese pistache	0.6	10.2	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.94	0.00	0.36	0.00	20.80	20.80
1369	Chinese pistache	0.1	2.3	0.4	1.0	0.1	0.1	0.00	0.09	0.00	0.25	0.00	0.10	0.00	4.72	4.72
1370	Deodar cedar	0.2	2.8	0.4	0.5	0.1	0.0	0.01	0.11	0.00	0.13	0.00	0.05	0.02	0.91	0.92
1372	Sweetgum	0.1	1.3	0.2	0.9	0.0	0.0	0.00	0.05	0.00	0.23	0.00	0.09	6.98	0.98	7.96
1373	Japanese zelkova	0.2	3.4	0.5	1.5	0.1	0.1	0.01	0.14	0.00	0.39	0.00	0.15	0.03	0.18	0.20
1374	Modesto ash	0.4	7.4	1.1	3.2	0.2	0.2	0.02	0.29	0.01	0.80	0.00	0.31	0.06	0.19	0.25
1375	Caucasian ash	0.6	10.6	1.6	4.3	0.3	0.2	0.02	0.42	0.01	1.06	0.00	0.41	0.08	0.27	0.36
1376	Caucasian ash	0.5	8.6	1.3	3.5	0.2	0.2	0.02	0.34	0.01	0.88	0.00	0.34	0.07	0.22	0.29
1377	Tulip tree	0.3	4.8	0.7	2.2	0.1	0.1	0.01	0.19	0.00	0.56	0.00	0.22	0.04	0.25	0.29
1378	Tulip tree	0.3	4.8	0.7	2.2	0.1	0.1	0.01	0.19	0.00	0.56	0.00	0.22	0.04	0.25	0.29
1382	Tulip tree	0.3	5.6	0.9	2.5	0.1	0.1	0.01	0.22	0.00	0.62	0.00	0.24	0.04	0.29	0.33

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1383	Sweetgum	0.1	1.3	0.2	0.9	0.0	0.0	0.00	0.05	0.00	0.23	0.00	0.09	6.98	0.98	7.96
1384	Sweetgum	0.1	1.3	0.2	0.9	0.0	0.0	0.00	0.05	0.00	0.23	0.00	0.09	6.98	0.98	7.96
1385	Sweetgum	0.1	1.3	0.2	0.9	0.0	0.0	0.00	0.05	0.00	0.23	0.00	0.09	6.98	0.98	7.96
1386	Sweetgum	0.1	1.3	0.2	0.9	0.0	0.0	0.00	0.05	0.00	0.23	0.00	0.09	6.98	0.98	7.96
1387	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.01	0.00	0.04	0.00	0.02	0.00	0.00	0.00
1388	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.01	0.00	0.04	0.00	0.02	0.00	0.00	0.00
1389	Common crapemyrtle	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.01	0.00	0.04	0.00	0.02	0.00	0.00	0.00
1392	Tulip tree	0.3	5.6	0.9	2.5	0.1	0.1	0.01	0.22	0.00	0.62	0.00	0.24	0.04	0.29	0.33
1393	Tulip tree	0.3	5.6	0.9	2.5	0.1	0.1	0.01	0.22	0.00	0.62	0.00	0.24	0.04	0.29	0.33
1394	Tulip tree	0.7	11.3	1.7	4.9	0.3	0.3	0.02	0.45	0.01	1.22	0.00	0.47	0.09	0.58	0.67
1395	Sweetgum	0.3	5.5	0.9	3.5	0.1	0.2	0.01	0.22	0.00	0.88	0.00	0.34	30.74	4.30	35.04
1396	London plane	0.4	6.9	1.1	4.1	0.2	0.2	0.01	0.28	0.01	1.02	0.00	0.39	18.94	0.18	19.12
1397	London plane	0.4	6.9	1.1	4.1	0.2	0.2	0.01	0.28	0.01	1.02	0.00	0.39	18.94	0.18	19.12
1398	London plane	0.4	6.9	1.1	4.1	0.2	0.2	0.01	0.28	0.01	1.02	0.00	0.39	18.94	0.18	19.12
1399	London plane	0.4	6.9	1.1	4.1	0.2	0.2	0.01	0.28	0.01	1.02	0.00	0.39	18.94	0.18	19.12
1400	Caucasian ash	0.2	4.3	0.7	1.8	0.1	0.1	0.01	0.17	0.00	0.45	0.00	0.18	0.03	0.11	0.14
1401	Caucasian ash	0.2	4.3	0.7	1.8	0.1	0.1	0.01	0.17	0.00	0.45	0.00	0.18	0.03	0.11	0.14
1402	Caucasian ash	0.2	4.3	0.7	1.8	0.1	0.1	0.01	0.17	0.00	0.45	0.00	0.18	0.03	0.11	0.14
1403	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1404	English walnut	0.1	1.9	0.3	1.1	0.0	0.1	0.00	0.07	0.00	0.29	0.00	0.11	0.01	1.44	1.45
1406	Sweetgum	0.1	1.6	0.3	1.3	0.0	0.1	0.00	0.07	0.00	0.34	0.00	0.13	9.06	1.27	10.33
1407	Sweetgum	0.1	1.6	0.3	1.3	0.0	0.1	0.00	0.07	0.00	0.34	0.00	0.13	9.06	1.27	10.33
1408	Sweetgum	0.4	6.9	1.1	5.6	0.2	0.3	0.01	0.28	0.01	1.39	0.00	0.54	38.30	5.36	43.65
1409	Sweetgum	0.4	6.9	1.1	5.6	0.2	0.3	0.01	0.28	0.01	1.39	0.00	0.54	38.30	5.36	43.65
1414	Black locust	0.4	7.5	1.2	3.9	0.2	0.2	0.02	0.30	0.01	0.97	0.00	0.37	8.23	0.39	8.61
1415	Honeylocust	0.3	5.7	0.9	2.2	0.1	0.1	0.01	0.23	0.00	0.56	0.00	0.22	0.00	0.00	0.00
1416	Tulip tree	1.0	16.9	2.6	7.1	0.4	0.4	0.03	0.67	0.01	1.78	0.00	0.69	0.13	0.87	1.00
1417	London plane	0.3	5.2	0.8	3.4	0.1	0.2	0.01	0.21	0.00	0.84	0.00	0.32	14.17	0.13	14.30
1418	London plane	0.3	5.2	0.8	3.4	0.1	0.2	0.01	0.21	0.00	0.84	0.00	0.32	14.17	0.13	14.30
1419	Scarlet oak	0.4	6.2	1.0	3.2	0.2	0.2	0.01	0.24	0.00	0.81	0.00	0.31	32.37	0.31	32.68
1420	Scarlet oak	0.6	10.8	1.7	4.7	0.3	0.2	0.02	0.43	0.01	1.18	0.00	0.45	57.07	0.54	57.61
1421	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1422	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1423	Common crapemyrtle	0.0	0.5	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.00	0.00
1424	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1425	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1426	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1427	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1428	London plane	0.2	3.2	0.5	2.0	0.1	0.1	0.01	0.13	0.00	0.50	0.00	0.19	8.63	0.08	8.71
1431	Caucasian ash	0.1	1.5	0.2	0.8	0.0	0.0	0.00	0.06	0.00	0.21	0.00	0.08	0.01	0.04	0.05
1432	Caucasian ash	0.7	12.0	1.9	5.6	0.3	0.3	0.02	0.48	0.01	1.41	0.00	0.54	0.09	0.31	0.40
1433	Glossy privet	1.3	22.2	3.4	7.0	0.6	0.4	0.05	0.88	0.02	1.75	0.00	0.68	0.00	0.00	0.00
1434	Caucasian ash	0.7	12.0	1.9	5.6	0.3	0.3	0.02	0.48	0.01	1.41	0.00	0.54	0.09	0.31	0.40
1435	Glossy privet	1.3	22.2	3.4	7.0	0.6	0.4	0.05	0.88	0.02	1.75	0.00	0.68	0.00	0.00	0.00
1436	Glossy privet	0.5	8.4	1.3	2.7	0.2	0.1	0.02	0.34	0.01	0.68	0.00	0.26	0.00	0.00	0.00

		Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Tree ID	Species Name	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	Vocs
1437	Glossy privet	0.5	8.4	1.3	2.7	0.2	0.1	0.02	0.34	0.01	0.68	0.00	0.26	0.00	0.00	0.00
1438	Chinese pistache	0.4	6.6	1.0	2.3	0.2	0.1	0.01	0.26	0.01	0.58	0.00	0.22	0.00	13.38	13.38
1439	Chinese pistache	0.4	6.6	1.0	2.3	0.2	0.1	0.01	0.26	0.01	0.58	0.00	0.22	0.00	13.38	13.38
1440	Chinese pistache	0.2	3.0	0.5	1.2	0.1	0.1	0.01	0.12	0.00	0.29	0.00	0.11	0.00	6.13	6.13
1441	Caucasian ash	0.6	9.9	1.5	4.1	0.3	0.2	0.02	0.39	0.01	1.02	0.00	0.39	0.08	0.26	0.33
1442	Callery pear	0.1	2.0	0.3	0.9	0.1	0.0	0.00	0.08	0.00	0.23	0.00	0.09	0.00	0.00	0.00
1443	Callery pear	0.1	2.0	0.3	0.9	0.1	0.0	0.00	0.08	0.00	0.23	0.00	0.09	0.00	0.00	0.00
1444	Chinese pistache	0.4	6.6	1.0	2.3	0.2	0.1	0.01	0.26	0.01	0.58	0.00	0.22	0.00	13.38	13.38
1445	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1446	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1447	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1448	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1449	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1450	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1451	California palm	0.5	8.8	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.38	0.18	7.55
1452	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1453	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1454	California palm	0.5	8.8	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.38	0.18	7.55
1455	California palm	0.5	8.8	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.38	0.18	7.55
1456	California palm	0.5	8.9	1.4	1.3	0.2	0.1	0.02	0.35	0.01	0.32	0.00	0.12	7.39	0.18	7.57
1457	Green indian laurel fig	0.1	0.9	0.1	0.4	0.0	0.0	0.00	0.04	0.00	0.11	0.00	0.04	1.77	0.05	1.83
1458	apple spp	0.0	0.4	0.1	0.2	0.0	0.0	0.00	0.02	0.00	0.04	0.00	0.02	0.00	0.00	0.00
1459	Sweetgum	0.2	2.8	0.4	1.8	0.1	0.1	0.01	0.11	0.00	0.45	0.00	0.18	15.25	2.13	17.38
1460	Chinese pistache	0.1	1.4	0.2	0.6	0.0	0.0	0.00	0.06	0.00	0.14	0.00	0.05	0.00	2.91	2.91
1463	Sweetgum	0.1	2.6	0.4	1.7	0.1	0.1	0.01	0.10	0.00	0.43	0.00	0.17	14.17	1.98	16.16
1464	Sweetgum	0.1	2.6	0.4	1.7	0.1	0.1	0.01	0.10	0.00	0.43	0.00	0.17	14.17	1.98	16.16
1465	Sweetgum	0.1	2.6	0.4	1.7	0.1	0.1	0.01	0.10	0.00	0.43	0.00	0.17	14.17	1.98	16.16
1466	Sweetgum	0.1	2.6	0.4	1.7	0.1	0.1	0.01	0.10	0.00	0.43	0.00	0.17	14.17	1.98	16.16
1467	Tulip tree	0.6	10.5	1.6	4.6	0.3	0.2	0.02	0.42	0.01	1.15	0.00	0.44	0.08	0.54	0.62
1468	Tulip tree	0.6	10.5	1.6	4.6	0.3	0.2	0.02	0.42	0.01	1.15	0.00	0.44	0.08	0.54	0.62
1469	Chinese pistache	0.6	10.2	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.94	0.00	0.36	0.00	20.80	20.80
1470	Chinese pistache	0.6	10.2	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.94	0.00	0.36	0.00	20.80	20.80
1471	Chinese pistache	0.6	10.2	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.94	0.00	0.36	0.00	20.80	20.80
1472	Chinese pistache	0.6	10.2	1.6	3.7	0.3	0.2	0.02	0.41	0.01	0.94	0.00	0.36	0.00	20.80	20.80
1474	Tulip tree	0.9	14.7	2.3	6.4	0.4	0.3	0.03	0.59	0.01	1.60	0.00	0.62	0.11	0.76	0.87
1476	Tulip tree	0.3	5.6	0.9	2.5	0.1	0.1	0.01	0.22	0.00	0.62	0.00	0.24	0.04	0.29	0.33
1478	Chinese pistache	0.8	13.3	2.1	5.0	0.3	0.3	0.03	0.53	0.01	1.24	0.00	0.48	0.00	27.16	27.16
1479	Chinese pistache	0.2	3.7	0.6	1.6	0.1	0.1	0.01	0.15	0.00	0.40	0.00	0.16	0.00	7.64	7.64
1480	Chinese pistache	0.8	13.3	2.1	5.0	0.3	0.3	0.03	0.53	0.01	1.24	0.00	0.48	0.00	27.16	27.16
	TOTAL	332.2	5,747.1	890.5	2,684.8	146.9	138.7	11.80	228.62	4.51	672.53	0.25	259.1	14,715.96	2,196.07	16,912.03

[1]Pollution Removal value is calculated based on the prices of $1136 per ton (CO), $1273 per ton (O3),$162 per ton (NO2), $54 per ton (SO2), $8016 per ton (PM10), $59784 per ton (PM2.5)

[2]PM10 consists of particulate matter less than 10 microns and greater than 2.5 microns. As PM2.5 is also estimated, the sum of PM10 and PM2.5 provides the total pollution removal and value for particulate matter less than 10 microns.

APPENDIX E

i-Tree Tree Population Summaries

Tree Characteristics in Redding Downtown Core Street Trees by Species

Series: Street Trees, Time Period: 2017

	Tree Count		Canopy Cover (ft2)		Leaf Area (ft2)		Leaf Biomass (lb)		Carbon Storage (lb)		Gross Carbon Seq (lb/year)		Structural Tree Value ($)	
Species Name	**Value**	**%**	**Value**	**%**	**Value**	**%**	**Value**	**%**	**Value**	**%**	**Value**	**%**	**Value**	**%**
apple spp	2	0.28	101.2	0.02	214.0	0.01	3.8	0.02	177.5	0.03	28.4	0.08	2,228.0	0.06
Black locust	10	1.41	4,591.9	0.89	12,901.6	0.73	142.2	0.65	7,861.6	1.47	655.9	1.77	38,139.0	1.01
California palm	14	1.97	1,034.4	0.20	9,947.8	0.56	314.7	1.44	2,370.8	0.44	50.4	0.14	8,616.0	0.23
Callery pear	54	7.59	14,425.8	2.78	36,632.9	2.08	561.7	2.56	6,831.2	1.28	1,080.8	2.91	94,245.0	2.50
Camphor tree	39	5.49	25,653.6	4.95	72,716.9	4.13	1,006.4	4.59	51,930.8	9.73	3,044.6	8.20	253,702.0	6.73
Caucasian ash	16	2.25	9,378.6	1.81	26,003.8	1.48	379.2	1.73	8,129.1	1.52	662.6	1.78	66,851.0	1.77
Cherry plum	5	0.70	730.9	0.14	1,797.4	0.10	22.4	0.10	1,098.5	0.21	154.6	0.42	10,900.0	0.29
Chinese elm	1	0.14	962.3	0.19	5,012.1	0.28	116.6	0.53	822.9	0.15	65.2	0.18	6,991.0	0.19
Chinese hackberry	1	0.14	176.5	0.03	695.0	0.04	8.4	0.04	151.7	0.03	26.5	0.07	2,152.0	0.06
Chinese pistache	53	7.45	45,064.2	8.69	163,989.7	9.30	2,563.9	11.70	58,483.9	10.96	4,028.4	10.85	339,686.0	9.01
Common crapemyrtle	71	9.99	4,392.8	0.85	10,648.6	0.60	163.2	0.74	1,880.9	0.35	594.3	1.60	55,488.0	1.47
Deodar cedar	1	0.14	78.6	0.02	243.7	0.01	7.8	0.04	82.5	0.02	5.5	0.01	2,444.0	0.06
English walnut	3	0.42	593.1	0.11	1,933.6	0.11	16.7	0.08	3,159.1	0.59	179.5	0.48	12,660.0	0.34
Flowering dogwood	6	0.84	1,440.2	0.28	4,808.9	0.27	57.3	0.26	892.2	0.17	158.2	0.43	12,415.0	0.33
Ginkgo	6	0.84	1,415.5	0.27	4,513.3	0.26	40.8	0.19	1,936.7	0.36	186.0	0.50	14,800.0	0.39
Glossy privet	4	0.56	2,719.0	0.52	9,170.6	0.52	170.8	0.78	5,201.3	0.97	337.0	0.91	19,975.0	0.53
Green indian laurel fig	1	0.14	122.7	0.02	236.4	0.01	3.6	0.02	465.1	0.09	50.4	0.14	3,113.0	0.08
Hind walnut	1	0.14	122.7	0.02	145.5	0.01	1.7	0.01	583.5	0.11	25.1	0.07	3,656.0	0.10
Honeylocust	1	0.14	707.2	0.14	1,067.6	0.06	22.9	0.10	830.3	0.16	70.9	0.19	4,809.0	0.13
Japanese zelkova	16	2.25	16,822.9	3.24	37,956.7	2.15	582.1	2.66	19,688.5	3.69	1,383.3	3.73	125,955.0	3.34
London plane	105	14.77	102,807.2	19.83	458,173.9	25.99	4,310.6	19.67	137,598.7	25.78	8,581.8	23.11	814,477.0	21.61
Modesto ash	15	2.11	9,732.7	1.88	27,637.8	1.57	403.0	1.84	10,593.2	1.98	738.9	1.99	72,012.0	1.91
Northern catalpa	1	0.14	397.2	0.08	536.6	0.03	6.7	0.03	1,232.7	0.23	89.1	0.24	4,651.0	0.12
Northern red oak	30	4.22	14,845.6	2.86	48,212.2	2.73	786.7	3.59	10,959.6	2.05	1,142.3	3.08	95,875.0	2.54
Norway maple	7	0.98	550.0	0.11	2,055.5	0.12	22.7	0.10	1,465.6	0.27	212.3	0.57	15,834.0	0.42
Oleander	1	0.14	50.6	0.01	123.5	0.01	3.8	0.02	12.1	0.00	3.2	0.01	354.0	0.01
Quercus ilex	2	0.28	519.9	0.10	1,133.8	0.06	22.9	0.10	1,900.8	0.36	154.3	0.42	12,343.0	0.33
Quercus suber	5	0.70	6,504.6	1.25	14,392.5	0.82	524.1	2.39	17,155.0	3.21	750.3	2.02	83,867.0	2.23
Quercus wislizeni	1	0.14	240.0	0.05	377.0	0.02	11.5	0.05	681.1	0.13	74.1	0.20	4,935.0	0.13
Scarlet oak	67	9.42	92,645.0	17.87	241,986.3	13.73	3,611.5	16.48	99,291.5	18.60	6,677.6	17.99	679,726.0	18.03
Southern magnolia	6	0.84	2,881.5	0.56	9,427.6	0.53	260.7	1.19	3,132.1	0.59	301.7	0.81	31,705.0	0.84
Sweetgum	122	17.16	117,305.1	22.62	364,889.1	20.70	3,431.1	15.65	42,438.1	7.95	2,990.7	8.06	597,086.0	15.84
Tulip tree	42	5.91	38,948.1	7.51	191,741.9	10.88	2,315.1	10.56	33,058.6	6.19	2,496.2	6.72	268,223.0	7.12
White mulberry	2	0.28	519.9	0.10	1,505.1	0.09	22.5	0.10	1,597.0	0.30	126.5	0.34	9,388.0	0.25
TOTAL	**711**	**100**	**518,481**	**100**	**1,762,829**	**100**	**21,919**	**100**	**533,694**	**100**	**37,127**	**100**	**3,769,301**	**100**

Pollution Effects in Redding Downtown Core Street Trees by Species

Series: Street Trees, Time Period: 2017

	Trees	Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Species Name	Count	CO	O3	NO2	[2]PM10	SO2	PM2.5	CO	O3	NO2	[2]PM10	SO2	PM2.5	Isoprene	Mono-terpene	VOCs
apple spp	2 0.28%	0.1 0.02%	0.9 0.02%	0.1 0.02%	0.4 0.01%	0.0 0.02%	0.0 0.01%	0.00 0.02%	0.04 0.02%	0.00 0.02%	0.10 0.01%	0.00 0.02%	0.04 0.01%	0.00 0.00%	0.00 0.00%	0.00 0.00%
Black locust	10 1.41%	2.1 0.62%	35.7 0.62%	5.5 0.62%	20.4 0.76%	0.9 0.62%	1.1 0.76%	0.07 0.62%	1.42 0.62%	0.03 0.62%	5.11 0.76%	0.00 0.62%	1.97 0.76%	38.95 0.26%	1.84 0.08%	40.79 0.24%
California palm	14 1.97%	6.5 1.97%	112.9 1.97%	17.5 1.97%	16.5 0.62%	2.9 1.97%	0.9 0.62%	0.23 1.97%	4.49 1.97%	0.09 1.97%	4.14 0.62%	0.00 1.97%	1.59 0.62%	94.18 0.64%	2.28 0.10%	96.46 0.57%
Callery pear	54 7.59%	8.1 2.45%	140.8 2.45%	21.8 2.45%	60.3 2.25%	3.6 2.45%	3.1 2.25%	0.29 2.45%	5.60 2.45%	0.11 2.45%	15.10 2.25%	0.01 2.45%	5.82 2.25%	0.00 0.00%	0.00 0.00%	0.00 0.00%
Camphor tree	39 5.49%	20.9 6.28%	361.2 6.28%	56.0 6.28%	164.1 6.11%	9.2 6.28%	8.5 6.11%	0.74 6.28%	14.37 6.28%	0.28 6.28%	41.11 6.11%	0.02 6.28%	15.84 6.11%	0.00 0.00%	0.00 0.00%	0.00 0.00%
Caucasian ash	16 2.25%	5.5 1.65%	95.1 1.65%	14.7 1.65%	41.3 1.54%	2.4 1.65%	2.1 1.54%	0.20 1.65%	3.78 1.65%	0.07 1.65%	10.36 1.54%	0.00 1.65%	3.99 1.54%	0.74 0.01%	2.45 0.11%	3.20 0.02%
Cherry plum	5 0.70%	0.3 0.10%	5.6 0.10%	0.9 0.10%	3.0 0.11%	0.1 0.10%	0.2 0.11%	0.01 0.10%	0.22 0.10%	0.00 0.10%	0.75 0.11%	0.00 0.10%	0.29 0.11%	0.04 0.00%	0.14 0.01%	0.19 0.00%
Chinese elm	1 0.14%	1.7 0.51%	29.2 0.51%	4.5 0.51%	6.6 0.24%	0.7 0.51%	0.3 0.24%	0.06 0.51%	1.16 0.51%	0.02 0.51%	1.64 0.24%	0.00 0.51%	0.63 0.24%	0.23 0.00%	0.76 0.03%	0.98 0.01%
Chinese hackberry	1 0.14%	0.1 0.04%	2.1 0.04%	0.3 0.04%	1.0 0.04%	0.1 0.04%	0.1 0.04%	0.00 0.04%	0.08 0.04%	0.00 0.04%	0.25 0.04%	0.00 0.04%	0.09 0.04%	0.02 0.00%	0.11 0.00%	0.13 0.00%
Chinese pistache	53 7.45%	37.2 11.19%	642.9 11.19%	99.6 11.19%	237.1 8.83%	16.4 11.19%	12.2 8.83%	1.32 11.19%	25.57 11.19%	0.50 11.19%	59.40 8.83%	0.03 11.19%	22.88 8.83%	0.00 0.00%	1,311.28 59.71%	1,311.28 7.75%
Common crapemyrtle	71 9.99%	2.4 0.71%	40.9 0.71%	6.3 0.71%	17.9 0.67%	1.0 0.71%	0.9 0.67%	0.08 0.71%	1.63 0.71%	0.03 0.71%	4.47 0.67%	0.00 0.71%	1.72 0.67%	0.00 0.00%	0.00 0.00%	0.00 0.00%
Deodar cedar	1 0.14%	0.2 0.05%	2.8 0.05%	0.4 0.05%	0.5 0.02%	0.1 0.05%	0.0 0.02%	0.01 0.05%	0.11 0.05%	0.00 0.05%	0.13 0.02%	0.00 0.05%	0.05 0.02%	0.02 0.00%	0.91 0.04%	0.92 0.01%
English walnut	3 0.42%	0.2 0.07%	4.2 0.07%	0.6 0.07%	2.9 0.11%	0.1 0.07%	0.1 0.11%	0.01 0.07%	0.17 0.07%	0.00 0.07%	0.73 0.11%	0.00 0.07%	0.28 0.11%	0.03 0.00%	3.24 0.15%	3.27 0.02%
Flowering dogwood	6 0.84%	0.8 0.25%	14.4 0.25%	2.2 0.25%	7.2 0.27%	0.4 0.25%	0.4 0.27%	0.03 0.25%	0.57 0.25%	0.01 0.25%	1.79 0.27%	0.00 0.25%	0.69 0.27%	0.11 0.00%	5.93 0.27%	6.04 0.04%
Ginkgo	6 0.84%	0.6 0.18%	10.2 0.18%	1.6 0.18%	6.8 0.25%	0.3 0.18%	0.4 0.25%	0.02 0.18%	0.41 0.18%	0.01 0.18%	1.71 0.25%	0.00 0.18%	0.66 0.25%	0.00 0.00%	7.92 0.36%	7.92 0.05%
Glossy privet	4 0.56%	3.5 1.07%	61.3 1.07%	9.5 1.07%	19.5 0.72%	1.6 1.07%	1.0 0.72%	0.13 1.07%	2.44 1.07%	0.05 1.07%	4.87 0.72%	0.00 1.07%	1.88 0.72%	0.00 0.00%	0.00 0.00%	0.00 0.00%
Green indian laurel fig	1 0.14%	0.1 0.02%	0.9 0.02%	0.1 0.02%	0.4 0.02%	0.0 0.02%	0.0 0.02%	0.00 0.02%	0.04 0.02%	0.00 0.02%	0.11 0.02%	0.00 0.02%	0.04 0.02%	1.77 0.01%	0.05 0.00%	1.83 0.01%
Hind walnut	1 0.14%	0.0 0.01%	0.4 0.01%	0.1 0.01%	0.3 0.01%	0.0 0.01%	0.0 0.01%	0.00 0.01%	0.02 0.01%	0.00 0.01%	0.09 0.01%	0.00 0.01%	0.03 0.01%	0.00 0.00%	0.32 0.01%	0.32 0.00%
Honeylocust	1 0.14%	0.3 0.10%	5.7 0.10%	0.9 0.10%	2.2 0.08%	0.1 0.10%	0.1 0.08%	0.01 0.10%	0.23 0.10%	0.00 0.10%	0.56 0.08%	0.00 0.10%	0.22 0.08%	0.00 0.00%	0.00 0.00%	0.00 0.00%
Japanese zelkova	16 2.25%	8.4 2.54%	146.0 2.54%	22.6 2.54%	65.6 2.44%	3.7 2.54%	3.4 2.44%	0.30 2.54%	5.81 2.54%	0.11 2.54%	16.43 2.44%	0.01 2.54%	6.33 2.44%	1.14 0.01%	7.54 0.34%	8.68 0.05%
London plane	105 14.77%	62.5 18.81%	1,080.8 18.81%	167.5 18.81%	623.8 23.24%	27.6 18.81%	32.2 23.24%	2.22 18.81%	43.00 18.81%	0.85 18.81%	156.27 23.24%	0.05 18.81%	60.20 23.24%	2,950.71 20.05%	27.90 1.27%	2,978.62 17.61%

	Trees	Pollution Removed (ounce/yr)						Removal Value ($/yr)[1]						VOC Emission (ounce/yr)		
Species Name	**Count**	**CO**	**O3**	**NO2**	**[2]PM10**	**SO2**	**PM2.5**	**CO**	**O3**	**NO2**	**[2]PM10**	**SO2**	**PM2.5**	**Isoprene**	**Mono-terpene**	**VOCs**
Modesto ash	15	5.8	101.1	15.7	43.5	2.6	2.2	0.21	4.02	0.08	10.91	0.00	4.20	0.79	2.61	3.40
	2.11%	1.76%	1.76%	1.76%	1.62%	1.76%	1.62%	1.76%	1.76%	1.76%	1.62%	1.76%	1.62%	0.01%	0.12%	0.02%
Northern catalpa	1	0.1	1.7	0.3	1.2	0.0	0.1	0.00	0.07	0.00	0.30	0.00	0.12	0.13	0.09	0.22
	0.14%	0.03%	0.03%	0.03%	0.04%	0.03%	0.04%	0.03%	0.03%	0.03%	0.04%	0.03%	0.04%	0.00%	0.00%	0.00%
Northern red oak	30	11.4	197.3	30.6	72.4	5.0	3.7	0.40	7.85	0.15	18.13	0.01	6.99	1,037.95	9.84	1,047.80
	4.22%	3.43%	3.43%	3.43%	2.70%	3.43%	2.70%	3.43%	3.43%	3.43%	2.70%	3.43%	2.70%	7.05%	0.45%	6.20%
Norway maple	7	0.3	5.7	0.9	2.9	0.1	0.2	0.01	0.23	0.00	0.74	0.00	0.28	0.04	2.35	2.40
	0.98%	0.10%	0.10%	0.10%	0.11%	0.10%	0.11%	0.10%	0.10%	0.10%	0.11%	0.10%	0.11%	0.00%	0.11%	0.01%
Oleander	1	0.1	1.4	0.2	0.3	0.0	0.0	0.00	0.05	0.00	0.07	0.00	0.03	0.01	0.05	0.06
	0.14%	0.02%	0.02%	0.02%	0.01%	0.02%	0.01%	0.02%	0.02%	0.02%	0.01%	0.02%	0.01%	0.00%	0.00%	0.00%
Quercus ilex	2	0.5	8.2	1.3	2.8	0.2	0.1	0.02	0.33	0.01	0.71	0.00	0.27	43.26	0.41	43.67
	0.28%	0.14%	0.14%	0.14%	0.11%	0.14%	0.11%	0.14%	0.14%	0.14%	0.11%	0.14%	0.11%	0.29%	0.02%	0.26%
Quercus suber	5	10.9	188.1	29.1	35.9	4.8	1.9	0.39	7.48	0.15	8.99	0.01	3.46	989.70	9.39	999.09
	0.70%	3.27%	3.27%	3.27%	1.34%	3.27%	1.34%	3.27%	3.27%	3.27%	1.34%	3.27%	1.34%	6.73%	0.43%	5.91%
Quercus wislizeni	1	0.2	4.1	0.6	1.1	0.1	0.1	0.01	0.16	0.00	0.28	0.00	0.11	21.65	0.21	21.86
	0.14%	0.07%	0.07%	0.07%	0.04%	0.07%	0.04%	0.07%	0.07%	0.07%	0.04%	0.07%	0.04%	0.15%	0.01%	0.13%
Scarlet oak	67	52.3	905.5	140.3	393.7	23.1	20.3	1.86	36.02	0.71	98.63	0.04	37.99	4,764.88	45.19	4,810.07
	9.42%	15.76%	15.76%	15.76%	14.67%	15.76%	14.67%	15.76%	15.76%	15.76%	14.67%	15.76%	14.67%	32.38%	2.06%	28.44%
Southern magnolia	6	5.4	93.6	14.5	20.2	2.4	1.0	0.19	3.72	0.07	5.06	0.00	1.95	0.56	56.65	57.21
	0.84%	1.63%	1.63%	1.63%	0.75%	1.63%	0.75%	1.63%	1.63%	1.63%	0.75%	1.63%	0.75%	0.00%	2.58%	0.34%
Sweetgum	122	49.7	860.3	133.3	556.2	22.0	28.7	1.77	34.22	0.67	139.32	0.04	53.67	4,764.47	666.34	5,430.81
	17.16%	14.97%	14.97%	14.97%	20.72%	14.97%	20.72%	14.97%	14.97%	14.97%	20.72%	14.97%	20.72%	32.38%	30.34%	32.11%
Tulip tree	42	33.5	580.5	89.9	254.2	14.8	13.1	1.19	23.09	0.46	63.69	0.03	24.53	4.53	29.97	34.50
	5.91%	10.10%	10.10%	10.10%	9.47%	10.10%	9.47%	10.10%	10.10%	10.10%	9.47%	10.10%	9.47%	0.03%	1.36%	0.20%
White mulberry	2	0.3	5.6	0.9	2.4	0.1	0.1	0.01	0.22	0.00	0.59	0.00	0.23	0.04	0.29	0.34
	0.28%	0.10%	0.10%	0.10%	0.09%	0.10%	0.09%	0.10%	0.10%	0.10%	0.09%	0.10%	0.09%	0.00%	0.01%	0.00%
TOTAL	**711**	**332.2**	**5747.1**	**890.5**	**2,684.8**	**146.9**	**138.7**	**11.80**	**228.62**	**4.51**	**672.53**	**0.25**	**259.1**	**14,715.96**	**2,196.07**	**16,912.03**
	100.00%	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

[1]Pollution Removal value is calculated based on the prices of $1136 per ton (CO), $1273 per ton (O3),$162 per ton (NO2), $54 per ton (SO2), $8016 per ton (PM10), $59784 per ton (PM2.5)
[2]PM10 consists of particulate matter less than 10 microns and greater than 2.5 microns. As PM2.5 is also estimated, the sum of PM10 and PM2.5 provides the total pollution removal and value for particulate matter less than 10 microns.

APPENDIX F

Potential Planting Site Attributes

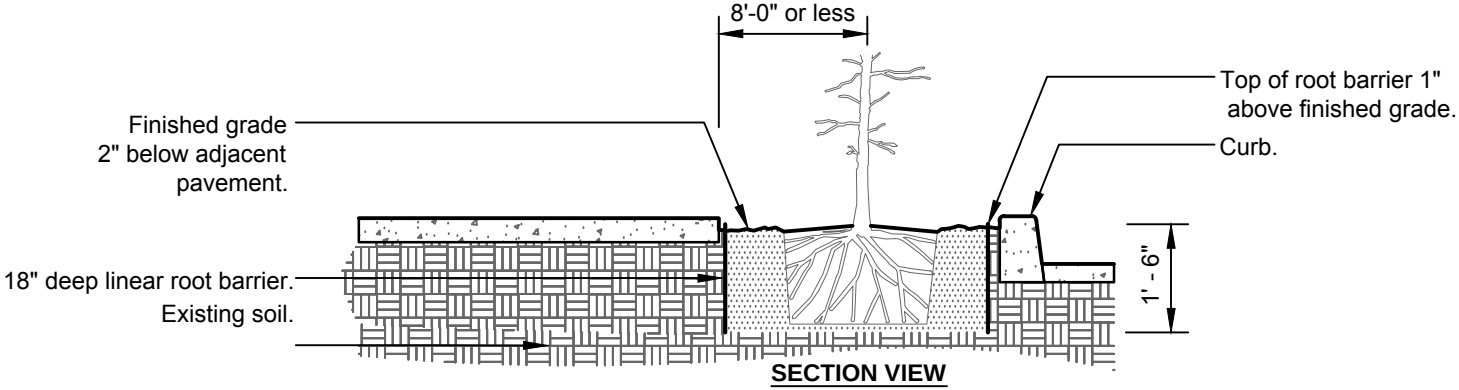
Planting Site Information Matrix										
Site Number	Potential Clearance or Visibility Issues	Street Name	Cal Trans ROW	Overhead Utility Lines Present	Growing Space Type	Space Size (ft.)	Concrete Removal Required	Existing Irrigation	Underground Utility	Notes
801	None	Yuba Street	NA	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
802	Visibility	East Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal. Possibly obstructs view of business sign.
803	None	Placer Street	NA	No	Tree well	4	N	No	Unknown	
804	None	Placer Street	NA	No	Tree well	4	N	No	Unknown	
805	None	Placer Street	NA	No	Tree well	4	N	No	Unknown	
806	None	Pine Street	273	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
807	None	Pine Street	273	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
808	Clearance	Pine Street	273	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal. Possible conflict with overhang.
809	Clearance	Pine Street	273	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal. Possible conflict with overhang.
810	Clearance	Pine Street	273	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal. Possible conflict with overhang.
811	None	California Street	NA	No	Tree well	5.5	N	No	Unknown	
812	None	California Street	NA	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
813	None	Shasta Street	NA	No	Tree well	5	N	Yes	Unknown	
814	None	Market Street	44	No	Tree well	3	Y	No	Unknown	Requires concrete removal.
815	None	Market Street	44	No	Tree well	3	Y	No	Unknown	Requires concrete removal.
816	None	Market Street	44	No	Tree well	3	Y	No	Unknown	Requires concrete removal.
817	None	Market Street	44	No	Tree well	3	Y	No	Unknown	Requires concrete removal.
818	None	Tehama Street	44	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
819	None	Tehama Street	44	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
820	None	East Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
821	None	East Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
822	None	East Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
823	None	Shasta Street	44	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
824	None	Pine Street	44	Yes	Tree well	4	N	No	Unknown	
825	None	Eureka Way	NA	No	Tree well	3.5	N	No	Unknown	
826	None	East Street	NA	No	Tree well	4	N	No	Unknown	
827	None	Eureka Way	NA	No	Tree well	4	N	No	Unknown	
828	None	Pine Street	44	No	Tree well	3.5	N	No	Unknown	
829	None	Pine Street	44	No	Tree well	4	Y	No	Unknown	Requires brick removal
830	None	Market Street	44	Yes	Tree well	3.5	N	No	Unknown	
831	None	Market Street	44	Yes	Tree well	3.5	N	No	Unknown	
832	None	Market Street	44	Yes	Tree well	3.5	N	No	Unknown	
833	None	Trinity Street	NA	Yes	Tree well	4	N	No	Unknown	
834	None	Pine Street	NA	Yes	Tree well	3.5	N	No	Unknown	
835	None	Pine Street	NA	Yes	Tree well	3.5	N	No	Unknown	Dealership view
836	None	Pine Street	NA	Yes	Tree well	3.5	N	No	Unknown	Dealership view
837	None	Pine Street	NA	Yes	Tree well	3.5	N	No	Unknown	Dealership view
838	None	Eureka Way	44	Yes	Tree well	3.5	N	No	Unknown	Dealership view
839	None	Trinity Street	NA	No	Tree well	4.5	Y	No	Unknown	Requires concrete removal.
840	None	Trinity Street	NA	No	Tree well	4.5	N	No	Unknown	
841	None	Trinity Street	NA	No	Tree well	4.5	N	No	Unknown	
842	Visibility	California Street	NA	No	Tree well	3.5	N	Yes	Unknown	
843	None	California Street	NA	No	Tree well	3.5	N	Yes	Unknown	
844	None	California Street	NA	No	Tree well	3.5	N	Yes	Unknown	
845	None	California Street	NA	No	Tree well	3.5	N	Yes	Unknown	
846	None	California Street	NA	No	Tree well	3.5	N	Yes	Unknown	
847	None	Eureka Way	44	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
848	None	Trinity Street	NA	No	Tree well	4	N	No	Unknown	
849	None	Trinity Street	NA	No	Tree well	4	N	No	Unknown	
850	None	Trinity Street	NA	No	Tree well	4	N	No	Unknown	
851	None	Trinity Street	NA	No	Tree well	4	N	No	Unknown	
852	None	Center Street	NA	No	Tree well	4	N	No	Unknown	City row?
853	None	Division Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
854	None	California Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
855	None	Division Street	NA	Yes	Tree well	4	Y	No	Unknown	Requires concrete removal.
856	None	California Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
857	None	California Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
858	None	California Street	NA	No	Tree well	4	N	No	Unknown	
859	None	California Street	NA	Yes	Tree well	4	N	No	Unknown	
860	None	California Street	NA	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
861	None	Shasta Street	NA	No	Tree well	2.5	N	Yes	Unknown	Dealership view
862	None	Shasta Street	NA	Yes	Tree well	2.5	N	Yes	Unknown	
863	Visibility	Market Street	44	Yes	Tree well	4	N	No	Unknown	Traffic camera
864	Visibility	Market Street	44	Yes	Tree well	4	N	No	Unknown	
965	None	Market Street	44	No	Tree well	4	N	No	Unknown	

Planting Site Information Matrix										
Site Number	Potential Clearance or Visibility Issues	Street Name	Cal Trans ROW	Overhead Utility Lines Present	Growing Space Type	Space Size (ft.)	Concrete Removal Required	Existing Irrigation	Underground Utility	Notes
866	None	California Street	NA	No	Tree well	2.5	N	Yes	Unknown	Dealership view
867	None	California Street	NA	Yes	Tree well	4	N	No	Unknown	
868	None	California Street	NA	No	Tree well	4	N	No	Unknown	
869	None	California Street (Parking Lot)	NA	No	Tree well	8.5	N	No	Unknown	
870	None	California Street (Parking Lot)	NA	No	Tree well	8.5	N	No	Unknown	
871	None	California Street	273	No	Tree well	4	N	No	Unknown	
872	None	California Street	273	Yes	Tree well	3.5	N	No	Unknown	
873	None	California Street	273	Yes	Tree well	4	N	No	Unknown	
874	Visibility	California Street	273	No	Tree well	4.5	N	No	Unknown	
875	None	Placer Street	NA	No	Tree well	4	N	No	Unknown	
876	None	Placer Street	NA	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
877	None	Market Street	273	No	Tree well	4	Y	No	Unknown	Requires concrete removal.
878	None	Market Street	273	No	Tree well	4	N	No	Unknown	
879	None	Pine Street	273	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
880	None	Pine Street	273	Yes	Tree well	3.5	N	No	Unknown	
881	None	Pine Street	273	No	Tree well	3.5	N	No	Unknown	
882	Clearance	Market Street	NA	No	Tree well	3.5	N	No	Unknown	Union Bank overhang
883	None	Sacramento Street	NA	Yes	Tree well	3.5	N	No	Unknown	Adjacent tree crown in growing space
884	None	South Street	NA	No	Tree well	3.5	N	No	Unknown	
885	None	South Street	NA	No	Tree well	3.5	N	No	Unknown	
886	None	South Street	NA	No	Tree well	3.5	N	No	Unknown	
887	None	South Street	NA	Yes	Tree well	3.5	N	No	Unknown	Adjacent tree crown in growing space
888	None	Sacramento Street	NA	Yes	Tree well	3.5	N	No	Unknown	
889	None	Placer Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
890	None	Placer Street	NA	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
891	None	Placer Street	NA	No	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
892	None	California Street	273	No	Tree well	4	N	No	Unknown	
893	None	South Street	NA	No	Tree well	3.5	N	No	Unknown	
894	None	California Street	273	No	Tree well	3.5	N	No	Unknown	
895	None	California Street	273	No	Tree well	3.5	N	No	Unknown	
896	None	Oregon Street	NA	Yes	Tree well	4.5	N	No	Unknown	
897	None	Oregon Street	NA	Yes	Tree well	4.5	N	No	Unknown	
898	None	Oregon Street	NA	Yes	Tree well	4.5	N	No	Unknown	
899	None	Court Street	NA	No	Tree well	4.5	N	No	Unknown	
900	None	Court Street	NA	Yes	Tree well	4.5	N	No	Unknown	
901	None	Court Street	NA	Yes	Tree well	4.5	N	No	Unknown	
902	None	Shasta Street	NA	No	Tree well	2.5	N	No	Unknown	
903	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
904	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
905	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
906	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
907	Visibility	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
908	None	Oregon Street	NA	Yes	Tree well	5	N	No	Unknown	
909	None	Oregon Street	NA	Yes	Tree well	5	N	No	Unknown	
910	None	Butte Street	NA	No	Tree well	3.5	N	No	Unknown	Occupied by shrubs
911	None	Yuba Street	NA	No	Tree well	6	N	No	Unknown	
912	Visibility	Yuba Street	NA	No	Tree well	8.5	N	Yes	Unknown	
913	None	Court Street	NA	Yes	Tree well	4	Y	No	Unknown	Requires concrete removal.
914	None	Butte Street	NA	Yes	Tree well	3.5	N	No	Unknown	
915	None	Butte Street	NA	Yes	Tree well	3.5	N	No	Unknown	
916	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
917	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
918	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
919	None	Yuba Street	NA	Yes	Tree well	4	Y	No	Unknown	Requires concrete removal.
920	None	Shasta Street	NA	Yes	Tree well	4	Y	No	Unknown	Requires concrete removal.
921	None	Court Street	NA	Yes	Tree well	4	Y	No	Unknown	Requires concrete removal.
922	None	Court Street	NA	Yes	Tree well	3.5	N	No	Unknown	
923	None	Placer Street	NA	No	Tree well	3.5	N	No	Unknown	
924	None	Placer Street	NA	No	Tree well	3.5	N	No	Unknown	Adjacent tree crown in growing space
925	Visibility	Yuba Street	NA	No	Tree well	8.5	N	Yes	Unknown	
926	None	Placer Street	NA	Yes	Tree well	4	N	No	Unknown	
927	Visibility	Sacramento Street	NA	No	Tree well	3.5	N	No	Unknown	
928	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
929	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
930	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	

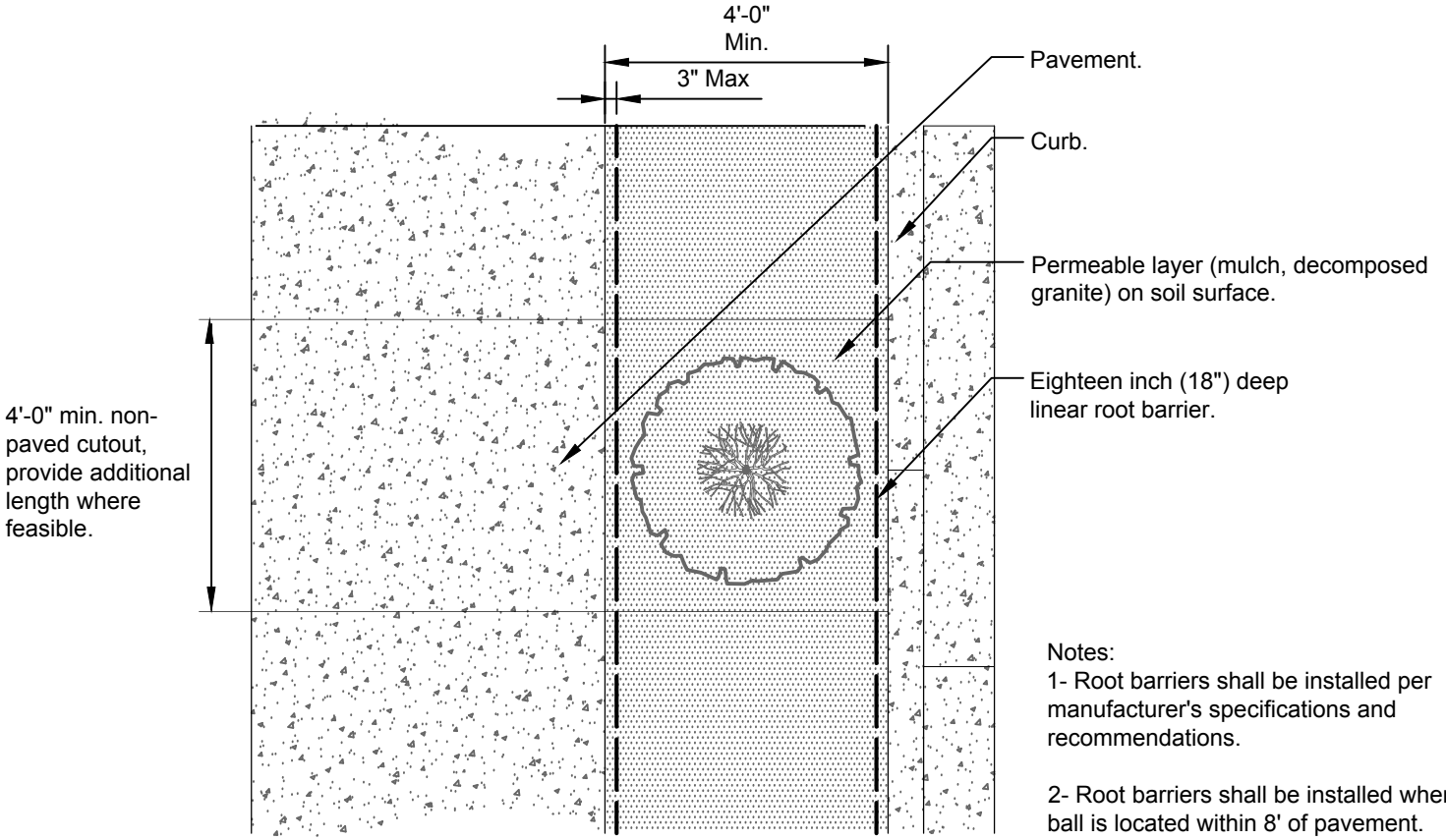
Planting Site Information Matrix										
Site Number	Potential Clearance or Visibility Issues	Street Name	Cal Trans ROW	Overhead Utility Lines Present	Growing Space Type	Space Size (ft.)	Concrete Removal Required	Existing Irrigation	Underground Utility	Notes
931	None	Placer Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
932	None	Placer Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
933	None	Court Street	NA	Yes	Tree well	3.5	N	No	Unknown	
934	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
935	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
936	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
937	None	Oregon Street	NA	Yes	Tree well	3.5	N	No	Unknown	
938	None	South Street	NA	Yes	Tree well	3.5	N	No	Unknown	
939	None	South Street	NA	Yes	Tree well	3.5	N	No	Unknown	
940	None	Court Street	NA	Yes	Tree well	3.5	N	No	Unknown	
941	None	Court Street	NA	No	Tree well	3.5	N	No	Unknown	
942	None	Court Street	NA	No	Tree well	3.5	N	No	Unknown	
943	None	Pine Street	273	Yes	Tree well	3.5	N	No	Unknown	
944	None	Pine Street	273	Yes	Tree well	3.5	N	No	Unknown	
945	None	Pine Street	273	Yes	Tree well	3.5	N	No	Unknown	
946	None	Pine Street	273	Yes	Tree well	3.5	N	No	Unknown	
947	None	South Street	NA	Yes	Tree well	3.5	N	No	Unknown	
948	None	East Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
949	None	East Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
950	None	East Street	NA	Yes	Tree well	3.5	Y	No	Unknown	Requires concrete removal.
951	None	East Street	NA	Yes	Tree well	4	N	No	Unknown	
952	None	East Street	NA	Yes	Tree well	4	N	No	Unknown	
953	None	East Street	NA	No	Tree well	4	N	No	Unknown	Adjacent tree crown in growing space
954	None	East Street	NA	No	Tree well	4	N	No	Unknown	
955	None	East Street	NA	No	Tree well	3.5	N	No	Unknown	
956	None	Trinity Street	NA	No	Tree well	3.5	N	No	Unknown	
957	Visibility	Trinity Street	NA	No	Tree well	3.5	N	No	Unknown	Adjacent tree crown in growing space
958	None	Trinity Street	NA	Yes	Tree well	3.5	N	No	Unknown	
959	None	Trinity Street	NA	Yes	Tree well	3.5	N	No	Unknown	
960	None	California Street	273	Yes	Tree well	3.5	N	No	Unknown	
961	None	California Street	273	Yes	Tree well	3.5	N	No	Unknown	
962	None	Market Street	273	Yes	Tree well	4	N	No	Unknown	
963	None	Market Street	273	No	Tree well	3.5	N	No	Unknown	
964	None	Market Street	273	No	Tree well	3.5	N	No	Unknown	

APPENDIX G

Standard Tree Planting Site Design



SECTION VIEW



PLAN VIEW

Notes:
1- Root barriers shall be installed per manufacturer's specifications and recommendations.

2- Root barriers shall be installed when root ball is located within 8' of pavement.

Appendix G - Standard Tree Planting Site Design

SOURCE: URBAN TREE FOUNDATION © 2014

APPENDIX H

Recommended Tree Planting List

Recommended Tree Planting List								
Latin Name	**Common Name**	**Mature Height (feet)**	**Mature Canopy Diameter (feet)**	**Mature Canopy Shape**	**Root Damage Potential**	**WUCOLS***	**UFEI Nursery Connection**	**Redding Original List**
Small - Deciduous								
Acer palmatum Varieties	Japanese Maple Varieties	15-25	15-25	Erect or spreading with a low canopy	low	Moderate	Yes	Yes
Acer tataricum ginnalla	Amur Maple	20-25	20-25	Oval	low	Moderate	No	Yes
Acer truncatum	Shantung Maple	20-30	20-30	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Cercis canadensis 'Forest Pansy'	Purple Leaf Eastern Redbud	20-30	20-25	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Cercis canadensis var. texensis 'Oklahoma'	Oklahoma Redbud	15	15	Round or vase	Low	Moderate	No	No
Cercis occidentalis	Western Redbud	10-20	10-20	Erect or spreading with a low canopy	Low	Very low	Yes	Yes
Chilopsis linearis	Desert Willow	15-30	10-20	Spreading low or high canopy	Low	Very low	Yes	No
Crataegus ambigua	Russian Hawthorn	15-25	15-25	Erect or spreading with a low canopy	Low	Moderate	No	Yes
Gleditsia triacanthos inermis 'Rubylace'	Rubylace Locust	20-30	18-20	Erect or spreading with a low canopy	Moderate	Unknown	No	Yes
Koelreuteria paniculata	Fastigiata Goldenrain Tree	20-30	4-7	Columnar	Low	Moderate	No	No
Lagerstroemia fauriei	Japanese Crape Myrtle	20-30	20-30	Vase	Low	Low	Yes	No
Lagerstroemia indica	Crape Myrtle	25	25	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Lagerstroemia indica 'Biloxi'	Biloxi Crape Myrtle	25	25	Vase	Low	Low	No	No
Lagerstroemia indica 'Catawaba'	Catawaba Crape Myrtle	5-15	5-15	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Lagerstroemia indica 'Cherokee'	Cherokee Crape Myrtle	10-15	10-15	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Lagerstroemia indica 'Potomac'	Potomac Crape Myrtle	10-20	8-10	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Lagerstroemia indica 'Powhatan'	Powhatan Crape Myrtle	14-20	8-12	Erect or spreading with a low canopy	Low	Low	No	Yes
Lagerstroemia indica 'Seminole'	Seminole Crape Myrtle	15	6-15	Erect or spreading with a low canopy	Low	Low	No	Yes
Lagerstroemia 'Natchez'	Natchez Hybrid Crape Myrtle	20-25	15-25	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Lagerstroemia 'Tuscarora'	Tuscarora Hybrid Crape Myrtie	18-25	15-18	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Lagerstroemia'Muskogee'	Muskogee Hybrid Crape Myrtle	20-25	15-25	Erect or spreading with a low canopy	Low	Low	Yes	Yes
Magnolia x 'Spectrum'	Spectrum Hybrid Magnolia	20-30	15-30	Erect with a low canopy	Low	Moderate	No	Yes
Magnolia x soulangeana	Saucer Magnolia	25-30	25-30	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Magnolia x soulangeana 'Alexandrina'	Alexandrina Saucer Magnolia	20-25	20-25	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Magnolia x soulangeana 'Brozzonii'	Brozzoni Saucer Magnolia	25	25	Erect or spreading with a low canopy	Low	Moderate	No	Yes
Magnolia x soulangeana 'Rustica Rubra'	Rustica Rubra Saucer Magnolia	25	25	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Malus coronaria ioensis 'Plena'	Bechtel Crabapple	15-20	15-20	Erect or spreading with a low canopy	Low	Moderate	No	Yes
Parkinsonia x 'Desert Museum'	Desert Museum Palo Verde	25	25	Erect or spreading with a low canopy	Low	Very low	No	No
Prunus x blireana	Flowering Plum	12-15	12-15	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Prunus x incamp 'Okame'	Okame Cherry	15-20	15-20	Oval	Low	Moderate	No	No
Syringa reticulata	Japanese Lilac	20-30	15-25	Erect or spreading with a low canopy	Moderate	Moderate	No	Yes
Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree	20-30	15-20	Rounded or vase shape	Low	Moderate	No	No
Ulmus 'Frontier'	Frontier Elm	25	15	Pyramidal	Unknown	Unknown	No	No
Small - Evergreen								
Acacia aneura	Mulga	15-20	15-20	Oval or umbrella	Low	Low	No	No
Acacia stenophylla	Shoestring Acacia	20-30	10-20	Spreading with a high canopy	Low	Low	Yes	No
Butia capitata	Pindo Palm	15-25	10-15	Palm	Low	Low	Yes	No
Callistemon citrinus	Lemon Bottlebrush	20-25	25	Erect or spreading with a low canopy	Low	Low	Yes	No
Callistemon viminalis	Weeping Bottlebrush	15-20	15-20	Spreading or weeping with low canopy	Low	Low	Yes	No
Callistemon viminalis 'Red Cascade'	Red Cascade Weeping Bottlebrush	15-20	15-20	Weeping or rounded	Low	Low	No	No
Camelia oleifera	Tea-oil Camelia	10-20	6-12	Round or vase	Low	Unknown	No	No
Eriobotrya japonica	Loquat	15-30	15-30	Erect or spreading with a low canopy	Low	Low	No	No
Geijera parviflora	Australian Willow	30	20	Erect or weeping with a low canopy	Low	Moderate	Yes	No
Ilex opaca 'Stewart's Silver Crown'	Stewart's Silver Crown American Holly	15-25	15-25	Conical	Low	Unknown	No	No
Juniperus virginiana 'Burkii'	Burk Eastern Red Cedar	20-25	8-15	Conical	Low	Low	No	No
Juniperus virginiana 'Elegantissima'	Elegantissima Eastern Red Cedar	20-30	8-15	Oval, conical, or columnar	Low	Low	No	No
Juniperus virginiana 'Glauca'	Silver Eastern Red Cedar	25	6-8	Columnar	Low	Low	No	No
Photinia glabra	Red Leaf Photinia	15-20	10-15	Oval, round, or vase	Low	Unknown	No	No
Photinia serrulata var. aculeata	Aculeata Chinese Photinia	10-15	6-10	Rounded or vase shape	Low	Moderate	No	No
Photinia serrulata 'Nova'	Nova Chinese Photinia	10-15	7-8	Rounded or vase shape	Low	Moderate	No	No

Recommended Tree Planting List								
Latin Name	**Common Name**	**Mature Height (feet)**	**Mature Canopy Diameter (feet)**	**Mature Canopy Shape**	**Root Damage Potential**	**WUCOLS***	**UFEI Nursery Connection**	**Redding Original List**
Photinia x fraseri	Fraser Photinia	12-20	8-12	Oval	Low	Moderate	Yes	No
Quercus acuta	Japanese Evergreen Oak	20-30	15-20	Oval or Rounded	Low	Unknown	No	No
Medium - Deciduous								
Acer capillipes	Japanese Snakebark Maple	30-35	30-35	Erect or spreading with a low canopy	Low	Unknown	No	Yes
Acer rubrum 'October Glory'	October Glory Red Maple	40-50	25-35	Oval or Rounded	Low	Moderate	Yes	No
Albizia julibrissin	Silk Tree	20-35	20	Spreading with low canopy	moderate	Low	Yes	No
Carpinus betulus 'Fastigata'	Erect European Hornbeam	25-35	40-50	Columnar or conical	Low	Moderate	Yes	Yes
Carpinus caroliniana	American Homlbeam	20-35	20-30	Erect with a low canopy	Low	Unknown	No	Yes
Celtis reticulata	Netleaf Hackberry	25-35	25-30	Spreading or weeping with low canopy	Low	Low	No	No
Cercis canadensis	Eastern Redbud	25-35	25-35	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Cercis canadensis 'Silver Cloud'	Silver Cloud Eastern Redbud	25-35	25-35	Round or vase	Low	Moderate	No	No
Cercis canadensis var. texensis	Texas Redbud	25-35	35	Round or vase	Low	Moderate	No	No
Catalpa bignonioides	Common Catalpa	30-40	30-40	Spreading with a high canopy	Moderate	Moderate	No	No
x Chitalpa tashkentensis	Chitalpa	25-35	30	Low canopy	Low	Low	No	No
Crataegus phaenopynun (C. Cordata)	Washington Hawthorn	20-35	20-25	Erect or spreading with a low canopy	Low	Moderate	Yes	Yes
Fraxinus oxycarpa 'Flame'	Flame Ash	25-35	25-35	Rounded	low mod	Unknown	No	Yes
Fraxinus oxycarpa 'Raywood'	Raywood Ash	40-50	20-30	Erect or spreading with a low canopy	moderate	Moderate	Yes	Yes
Fraxinus pennsylvanica (F.lanceolata)	Green Ash., Red Ash	30-50	35-50	Erect or spreading with a high canopy	Moderate	Moderate	Yes	Yes
Fraxinus pennsylvanica 'Marshall'	Marshall Seedless Green Ash	30-50	30-50	Erect or spreading with a high canopy	moderate	Moderate	No	Yes
Ginkgo biloba 'Autumn Gold'	Autumn Gold Maidenhair Tree	25-50	25-35	Erect or spreading and requires ample growing space	Moderate	Unknown	Yes	Yes
Gleditsia triacanthos inermis 'Shademaster'	Shademaster Locust	45	35	Erect or spreading with a high canopy	moderate	Unknown	Yes	Yes
Gleditsia triacanthos inermis 'Skyline'	Skyline Locust	45	40	Erect or spreading with a high canopy	Moderate	Unknown	Yes	Yes
Gleditsia triacanthos inermis 'Sunburst'	Sunburst Locust	40	30	Erect or spreading with a low canopy	Moderate	Unknown	Yes	Yes
Maclura pomifera 'White Shield'	White Shield Osage Orange	30-35	30-35	Rounded or vase shape	Moderate	Unknown	No	No
Melia azedarach 'Umbraculifera'	Texas Umbrella Tree	30-50	15-25	Erect or spreading with a high canopy	Moderate	Low	No	Yes
Nyssa sylvatica	Sour Gum, Tupelo	35-50	20-30	Erect or spreading with a high canopy	Low	Moderate	Yes	Yes
Prosopis glandulosa x Maverick	Thornless Honey Mesquite	25-35	25-35	Rounded	Low	Low	No	No
Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	30-40	20	Erect or spreading with a high canopy	Moderate	Moderate	Yes	Yes
Pyrus calleryana 'Redspire'	Redspire Ornamental Pear	35	20	Erect with a high canopy	Moderate	Moderate	Yes	Yes
Pyrus calleryana 'Whitehouse'	Whitehouse Ornamental Pear	40	15	Erect or spreading with a high canopy	Moderate	Moderate	No	Yes
Pyrus calleryana 'Capital'	Capital Ornamental Pear	40	15	Erect with a low canopy	Moderate	Moderate	Yes	Yes
Quercus buckleyi	Texas Red Oak	30-50	30-50	Oval or Rounded	Low	Low	No	No
Quercus cerris	Turkey Oak	30-50	30-50	Rounded	Low	Low	No	No
Quercus lyrata	Overcup Oak	30-40	30-40	Erect with a high canopy	Low	Unknown	No	No
Quercus muehlenbergii	Chinquapin Oak	40-50	50-60	Rounded	Low	Moderate	No	No
Triadica sebifera	Chinese Tallow Tree	30-40	25-30	Erect or spreading with a low canopy	Moderate	Moderate	Yes	Yes
Sophora japonica 'Regent'	Regent Japanese Pagoda Tree	40-50	30-40	Rounded	Low	Low	No	No
Tilia cordata	Little-Leaf Linden	30-50	15-30	Erect or spreading with a high canopy	Moderate	Moderate	Yes	Yes
Ulmus parvifolia 'Dynasty'	Dynasty Chinese Elm	40-50	35-50	Vase	Low	Moderate	No	No
Ulmus propinqua	Emerald Sunshine Elm	25-35	25	Vase	Low	Unknown	No	No
Zelkova serrata 'Musashino'	Musashino Sawleaf Zelkova	40-45	10-15	Erect with a high canopy	Low	Moderate	Yes	No
Medium - Evergreen								
Corymbia papuana	Ghost Gum	30-50	20-35	Erect or spreading and requires ample growing space	Moderate	Unknown	No	No
Ebenopsis ebano	Texas Ebony	30-40	30-40	Oval or vase	High	Unknown	No	No
Juniperus virginiana 'Canaertii'	Canaertii Eastern Red Cedar	30-40	8-15	Conical	Low	Low	No	No
Laurus nobilis	Sweet Bay	15-40	15-30	Compact and erect with a low canopy	Moderate	Low	Yes	No
Laurus 'Saratoga'	Saratoga Laurel	15-40	15-30	Compact and erect with a low canopy	Low	Low	Yes	No
Ligustrum lucidum 'Davidson Hardy'	Davidson Hardy Glossy Privet	25-40	25-35	Rounded or vase shape	Low	Low	No	No
Magnolia grandiflora 'Bracken's Brown Beauty'	Bracken's Brown Beauty Southern Magnolia	30-50	15-20	Oval	Low	Moderate	No	No

Recommended Tree Planting List								
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Magnolia grandiflora 'Hasse'	Hasse Southern Magnolia	20-35	6-10	Conical or oval	Low	Moderate	No	No
Magnolia grandiflora 'Majestic Beauty'	Majestic Beauty Southern Magnolia	40-50	20-25	Conical or oval	Low	Moderate	No	No
Magnolia virginiana 'Henry Hicks'	Henry Hicks Sweetbay Magnolia	40-50	15-25	Columnar or vase	Low	Unknown	No	No
Podocarpus macrophyluus	Yew Pine	40-50	20	Erect with a high canopy	Low	Moderate	Yes	No
Prunus caroliniana 'Bright N Tight'	Bright N Tight Cherry Laurel	25-35	15-25	Oval or rounded	Low	Low	Yes	No
Quercus canbyi	Canby's Oak	40-50	40-50	Erect or spreading and requires ample growing space	Moderate	Unknown	No	No
Quercus glauca	Ring Cupped Oak	25-40	25-35	Oval or Rounded	Low	Unknown	No	No
Arbutus unedo	Strawberry Tree	20-35	20-35	Erect or spreading with a low canopy	Low	Low	Yes	No
Large - Deciduous								
Acer platanoides	Norway Maple	40-60	35-40	Erect or spreading and requires ample growing space	High	Moderate	Yes	No
Acer saccharinum	Silver Maple	40-100	50	Oval or Rounded	High	Moderate	No	No
Betula nigra	River Birch	50-90	40-60	Erect or spreading, needs ample growing space	moderate	High	Yes	No
Betula nigra 'Heritage'	Heritage River Birch (Cully)	40-70	40-60	Conical or oval	Low	Unknown	No	No
Celtis laevigata 'All Seasons'	All Seasons Sugarberry	40-60	35-55	Round or vase	High	Unknown	No	No
Celtis occidentalis 'Prairie Pride'	Prarie Pride Common Hackberry	40-55	40-50	Oval or Rounded	High	Low	No	No
Diospyros virginiana	American Persimmon	40-60	20-35	Erect or spreading with a high canopy	moderate	Moderate	No	Yes
Fraxinus latifolia (F.oregona)	Oregon Ash	65-85	50	Erect or spreading and requires ample growing space	Low	Moderate	No	Yes
Ginkgo biloba	Maiidenhair Tree	35-65	25	Erect or spreading and requires ample growing space	Moderate	Moderate	Yes	Yes
Ginkgo biloba 'Fairmont'	Fairmont Maidenhair Tree	50-75	12-25	Erect or spreading and requires ample growing space	Moderate	Unknown	Yes	Yes
Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Maidenhair Tree	50-65	15-20	Columnar	Low	Unknown	Yes	No
Gleditsia triacanthos	Honey Locust	35-70	25-35	Oval or umbrella	moderate	Low	Yes	No
Gleditsia triacanthos inermis 'Moraine'	Moraine Locust	35-65	30-50	Spreading with a high canopy	Moderate	Unknown	No	Yes
Liquidambar styraciflua	American Sweetgum	80	40	Erect or spreading and requires ample growing space	High	Moderate	Yes	No
Liquidambar styraciflua 'Rotundiloba'	Rotundiloba Sweetgum	40-60	35-40	Conical or oval	High	Moderate	Yes	No
Liriodendron tulipifera	Tulip Tree	60-90	40	Erect or spreading and requires ample growing space	Moderate	Moderate	Yes	Yes
Pistacia chinensis	Chinese Pistache	25-60	25-60	Erect or spreading with a high canopy	Low	Low	Yes	Yes
Platanus orientalis	Oriental Plane Tree	70-80	50-70	Erect or spreading and requires ample growing space	Moderate	Unknown	No	Yes
Platanus x hispanica 'Liberty'	Liberty London Plane Tree	70-85	50-70	Conical or rounded	High	Moderate	No	No
Pyrus calleryana	Flowering Ornamental Pear	50	50	Erect or spreading low or high canopy	Moderate	Moderate	Yes	Yes
Pyrus calleryana 'Bradford'	Bradford Pear	50	35	Erect or spreading with a high canopy	Moderate	Moderate	Yes	Yes
Quercus coccinea	Scarlet Oak	70	50	Erect or spreading and requires ample growing space	Moderate	Moderate	Yes	Yes
Quercus douglasii	Blue Oak	50-65	40-50	Erect or spreading with a high canopy	Low	Very low	Yes	Yes
Quercus falcata	Southern Red Oak	50-80	40-50	Oval or Rounded	Low	Unknown	No	No
Quercus macrocarpa	Burr Oak	60-80	30	Erect or spreading and requires ample growing space	Moderate	Moderate	No	Yes
Quercus palustris	Pin Oak	50-70	30-40	Spreading and requires ample growing space	Low	Moderate	Yes	Yes
Quercus phellos	Willow Oak	50-90	30-50	Erect or spreading and requires ample growing space	Moderate	Unknown	No	Yes
Quercus rubra (Q.Boreaiis)	Red Oak	60-80	50-70	Erect or spreading and requires ample growing space	Moderate	Moderate	Yes	Yes

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Quercus shumardii	Shumard Red Oak	70	40	Erect or spreading and requires ample growing space	Moderate	Moderate	Yes	Yes
Taxodium distichum var. imbricatum	Pond Cypress	30-70	10-20	Columnar or conical	Low	Moderate	No	No
Taxodium distichum 'Monarch of Illinois'	Monarch of Illinois Bald Cypress	60-90	60-70	Conical	Low	Moderate	No	No
Taxodium distichum 'Pendens'	Pendens Bald Cypress	50-75	25-35	Conical	Low	Moderate	No	No
Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	40-60	35-50	Erect or spreading with a low canopy	Moderate	Moderate	Yes	Yes
Ulmus americana 'Princeton'	Princeton American Elm	50-65	40-50	Vase	Low	Moderate	No	No
Ulmus parvifolia 'Allee'	Allee Chinese Elm	60-70	35-55	Erect, Spreading, or Weeping and requires ample growing space	Moderate	Moderate	Yes	No
Zelkova serrata	Sawleaf Zelkova	50-65	50-65	Erect or spreading and requires ample growing space	Moderate	Moderate	Yes	Yes
Zelkova serrata 'Green Vase'	Green Vase Sawleaf Zelkova	50-65	50-65	Vase	Low	Moderate	No	No
Zelkova serrata 'Village Green'	Village Green Sawleaf Zelkova	50-60	45-50	Vase	Low	Moderate	Yes	No
Larix kaempferi	Japanese Larch	60-80	20-30	Erect and requires ample growing space	Moderate	Unknown	No	No
Metasequoia glyptostroboides	Dawn Redwood	70-90	12-20	Erect and requires ample growing space	Moderate	High	No	No
Large - Evergreen								
Cinnamomum camphora	Camphor	50-65	50-60	Erect or spreading and requires ample growing space	High	Moderate	Yes	No
Dalbergia sissoo	Rosewood	45-65	30-40	Oval	High	Unknown	No	No
Quercus suber	Cork Oak	70	70	Erect or spreading and requires ample growing space	Moderate	Low	Yes	No
Cedrus deodara	Deodar Cedar	40-60	20-30	Spreading and weeping and requires ample growing space	Moderate	Low	Yes	No
Sequoia sempervirens	Redwood	70-100	15-30	Conical	Low	High	Yes	No
Sequoiadendron giganteum	Giant Sequoia	60-100	30-50	Conical	Moderate	Moderate	No	No

Irrigation water need as derived from Water Use Classification of Land Use Species (WUCOLS), online at: http://ucanr.edu/sites/WUCOLS/WUCOLS_IV_User_Manual/