

Preliminary Arborist Report

**6455 Owens Drive
Pleasanton, CA**

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Table of Contents

Introduction and Overview	1
Tree Assessment Methods	1
City of Pleasanton Urban Tree Protection Requirements	2
Description of Trees	2
Suitability for Preservation	4
Preliminary Evaluation of Impacts and Recommendations	5
Appraisal of Value	6
Preliminary Tree Preservation Guidelines	7

List of Tables

Table 1. Tree condition & frequency of occurrence.	2
Table 2. Suitability for preservation.	5
Table 3. Proposed action and estimate of value.	6

Exhibits

Tree Assessment Plan

Tree Assessment Form

Preliminary Arborist Report

6455 Owens Drive
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Introduction and Overview

FCGA is planning to redevelop the site at 6455 Owens Drive in Pleasanton, CA. Current site use consists of a portion of a strip mall with a building containing a bank, a parking lot with associated landscaping. HortScience, Inc. was asked to prepare a **Preliminary Arborist Report** for the site as part of the development application to the City of Pleasanton.

This report provides the following information:

1. An evaluation of the health and structural condition of the trees within the proposed project area based on a visual inspection from the ground.
2. An assessment of the development impacts to the trees based on the drawings provided by the client.
3. An appraisal of value of the trees according to the procedures described in the *Guide for Plant Appraisal* (Council of Tree and Landscape Appraisers).
4. Guidelines for tree preservation during the design, construction and maintenance phases of development.

Assessment Methods

Trees were assessed on and August 8, 2016. The assessment included all trees within and adjacent to the site measuring 6" and greater in diameter. The assessment procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with a numerically coded metal tag and recording its location on a map;
3. Measuring the trunk diameter at a point 54" above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
0 - Dead
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree species, and its potential to remain an asset to the site.

High: Trees with good health and structural stability that have the potential for longevity at the site.

Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'high' category.

Low: Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual tree may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Descriptions of each tree are found in the **Tree Assessment** and approximate locations are plotted on the **Tree Assessment Map** (see Exhibits).

City of Pleasanton Urban Tree Protection Requirements

The Pleasanton Municipal Code Chapter 17.16 controls the removal and preservation of *Heritage* trees within the City. *Heritage* trees are defined as:

1. Any single-trunked tree with a diameter of 18 inches or more measured four and one-half feet above ground level;
2. Any multi-trunked tree of which the two largest trunks have a diameter of 18 inches or more measured four and one-half feet above ground level;
3. Any tree 35 feet or more in height;
4. Any tree of particular historical significance specifically designated by official action;
5. A stand of trees, the nature of which makes each dependent upon the other for survival or the area's natural beauty.

Heritage trees may not be removed, destroyed or disfigured without a permit.

Description of Trees

Twelve (12) trees, representing two species, were evaluated (Table 1). The monoculture represented is not ideal for a thriving landscape, however the tree species selection was typical of those found in Tri-Valley landscapes.

Across all species, 50% of trees were in good condition, 20% were in fair condition and 30% were in poor condition. All trees on the site were planted.

**Table 1. Condition ratings and frequency of occurrence of trees
6455 Owens Drive, Pleasanton, CA.**

Common Name	Scientific Name				Protected	Total
		Poor (1-2)	Fair (3)	Good (4-5)		
Italian cypress	<i>Cupressus sempervirens</i>	-	-	4	-	4
Callery pear	<i>Pyrus calleryana</i>	4	1	2	1	8
Total		4	1	6	1	12

Eight Callery pear were present and ranged in size from 9" to 20". Pears #103 and 111 were in good condition with codominant trunks, multiple attachments, typical form and structure and good vigorous growth (Photo 1 and 2). Callery pear #111 was in fair condition with codominant leaders at 10'. The southern side of the canopy was growing into tree #110. Tree #112 also in fair condition with minor dieback in the canopy but typical form and structure. Tree #112 was located off-site and was 7".



Photo 1 (above). – Callery pear #103 was in good health and condition.



Photo 2 (right). – Callery pear #110 was in good health and condition.



Four pears (#106 – 109) were all but dead with very little live foliage (Photo 3). This group of trees ranged in size from 8" to – 10" in diameter. Tree #106 had wounds that had not healed properly. Tree #107 had a weak codominant branch attachment.

Photo 3. Trees #106 and 107 were all but dead (below).

Four Italian cypress trees (#101, 102, 104 and 105) were in good condition. The Italian cypresses were young trees ranging in diameter from six to eight inches. All four trees had good upright form and structure with good vigorous growth. However, trees #101 and 102 had a metal tree-tie embedded in the trunk (Photo 4, next page).

Photo 4 - Shows the embedded tree-tie in tree #101.

Callery pear #110 qualified as *Heritage* trees. Protected status of individual trees is provided in the **Tree Assessment**.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to provide greater assurance they survive development impacts, adapt to a new environment, and perform well in the landscape.



Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees. For instance, tree #106 was all but dead and should be removed regardless of construction plans.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. Neither species evaluated is tolerant of construction impacts and site changes or disturbances.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change. Italian cypress trees (#104 and 105) were good young trees that have good longevity.
- **Invasiveness**
Species that spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<http://www.cal-ipc.org/paf/>) lists species identified as being invasive. Pleasanton is part of the Central West Floristic Province. Neither of the species found at the site are listed as invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment. Table 2 provides a summary of suitability ratings. Suitability ratings for individual trees are provided in the **Tree Assessment** (see Exhibits).

We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

**Table 2: Tree suitability for preservation
6455 Owens Drive, Pleasanton, CA.**

High	These are trees with good health and structural stability that have the potential for longevity at the site. Callery pears #103 and 110 and Italian cypress #104 and 105 had high suitability for preservation.
Moderate	Trees in this category have fair health and/or structural defects that may be abated with treatment. These trees require more intense management and monitoring, and may have shorter life-spans than those in the "high" category. Callery pears #112 and 111 and Italian cypress #101 and 102 had moderate suitability for preservation.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Callery pear #106 – 109 had low suitability for preservation.

Preliminary Evaluation of Impacts and Recommendations

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The **Tree Assessment** was the reference point for tree health and condition. I referred to the Site Plan created by FCGA Architecture, provided on August 3, 2016 to evaluate the impacts to trees from the proposed development.

The plan proposes to construct a three new buildings one of which will be a restaurant with a drive through window and an associated parking lot. Due to the density of construction, tree preservation will not be possible.

Eleven trees, including Heritage tree #110, will be removed to accomplish the planned construction (Table 3). Callery pear #112, located off-site, should survive the impacts associated with site development.

**Table 3: Proposed action and estimate of value
 6455 Owens Drive, Pleasanton, CA.**

Tree No.	Species	Trunk Diameter (in.)	Heritage Tree?	Condition 1=poor 5=excel.	Estimate of Value	Proposed Action	Notes
101	Italian cypress	6	No	4	\$600	Remove	Within development area
102	Italian cypress	6	No	4	\$600	Remove	Within development area
103	Callery pear	11	No	4	\$2,200	Remove	Within development area
104	Italian cypress	6	No	4	\$350	Remove	Within development area
105	Italian cypress	6	No	4	\$350	Remove	Within development area
106	Callery pear	9	No	1	\$200	Remove	Within development area; low suitability
107	Callery pear	10	No	1	\$200	Remove	Within development area; low suitability
108	Callery pear	8,7	No	1	\$250	Remove	Within development area; low suitability
109	Callery pear	9	No	1	\$200	Remove	Within development area; low suitability
110	Callery pear	20	Yes	4	\$5,950	Remove	Within development area
111	Callery pear	11	No	3	\$1,300	Remove	Within development area
112	Callery pear	7	No	3	\$550	Preserve	Off-site

Trees that are recommended for preservation on site will require appropriate tree protection measures. The **Tree Preservation Guidelines** should be followed to ensure survival of retained trees. All of the trees recommended for preservation are located offsite.

Appraisal of Value

The City of Pleasanton requires the value be established of all trees to be removed. To accomplish this we used the standard methods found in *Guide for Plant Appraisal*, 9th edition (published in 2000 by the International Society of Arboriculture, Champaign IL). In addition, we referred to *Species Classification and Group Assignment* (2004), a publication of the Western Chapter of the International Society of Arboriculture. These two documents outline the methods employed in tree appraisal.

The value of landscape trees is based upon four factors: size, species, condition and location. Size is measured as trunk diameter, normally 54" above grade. A multi-branched tree which has major branches below 54" above the natural grade is measured just below the first major trunk fork.

The species factor considers the adaptability and appropriateness of the plant in the Bay area. The *Species Classification and Group Assignment* lists recommended species ratings and evaluations. Condition reflects the health and structural integrity of the individual, as noted in the *Tree Assessment Form*. Location considers the site, placement and contribution of the tree in its surrounding landscape.

The estimated value of the 11 trees recommended for removal is \$12,200. For Callery pear #112, the estimate of value is \$550.

Preliminary Tree Preservation Guidelines

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

Design recommendations

1. Project plans affecting the trees shall be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, demolition plans, site plans, improvement plans, utility and drainage plans, grading plans and landscape and irrigation plans.

Establish the Tree Protection Zone at the project perimeter. The project's security fence shall serve as protective fencing for off-site Callery pear #112.

2. Irrigation systems must be designed so that no trenching severs roots larger than 1" in diameter will occur within the **TREE PROTECTION ZONE**.
3. **Tree Preservation Guidelines** prepared by the Consulting Arborist, which include specifications for tree protection during demolition and construction, should be included on all plans.
4. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
5. Do not lime the subsoil within 50' of any tree. Lime is toxic to tree roots.
6. As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees should be designed to withstand differential displacement.

7. Ensure adequate but not excessive water is supplied to trees; in most cases occasional irrigation will be required. Avoid directing runoff toward trees.

Pre-construction treatments and recommendations

1. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503 & 3503.5 to not disturb nesting birds. Tree pruning and removal should be scheduled outside of the breeding season to avoid scheduling delays. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Recommendations for tree protection during construction

1. All contractors shall conduct operations in a manner that will prevent damage to the off-site tree to be preserved.
2. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.
3. Any root pruning required for construction purposes shall receive the prior approval of and be supervised by the Consulting Arborist.
4. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
5. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.

If you have any questions about my observations or recommendations, please contact me.

HortScience, Inc.



Darya Barar
Certified Arborist WE-6757A



Exhibits

Tree Assessment Map

Tree Assessment



Tree Assessment Plan

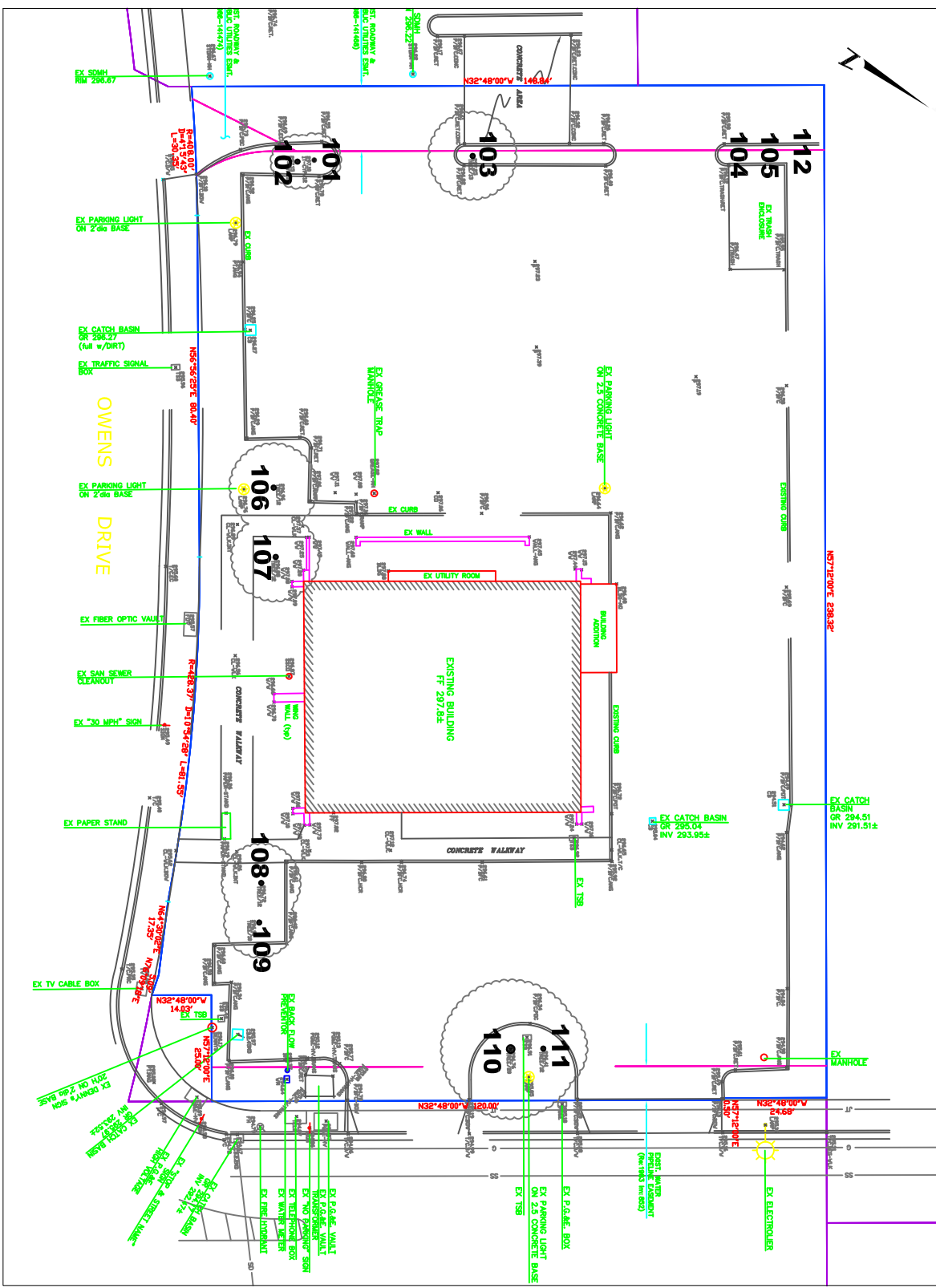
6455 Owens Drive
Pleasanton, CA

Prepared for:
Abbas Mash
Pleasanton, CA

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No Scale

Notes:
Base map provided by:
Debot Civil Engineering
Danville, CA
Numbered tree locations
are approximate.



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Tree Assessment

6455 Owens Drive
Pleasanton, CA
August 19, 2016



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Comments
101	Italian cypress	8	No	4	Moderate	Trunk girdled at 6'; great upright form and structure; tag on nursery stake at base.
102	Italian cypress	8	No	4	Moderate	Trunk girdled at 6'; great upright form and structure; tag on nursery stake at base.
103	Callery pear	11	No	4	High	Multiple attachments arise from 6'; history of branch failure; good vigor; typical form and structure.
104	Italian cypress	6	No	4	High	Good upright form and structure.
105	Italian cypress	6	No	4	High	Good upright form and structure.
106	Callery pear	9	No	1	Low	All but dead very little live foliage.
107	Callery pear	10	No	1	Low	All but dead; little live foliage.
108	Callery pear	8,7	No	1	Low	All but dead; codominant leaders at 2'.
109	Callery pear	9	No	1	Low	All but dead; little live foliage.
110	Callery pear	20	Yes	4	High	Codominant leaders at 8' and at 10'; typical form and structure.
111	Callery pear	11	No	3	Moderate	Codominant leaders at 10'; been canopy growing into tree #110.
112	Callery pear	7	No	3	Moderate	Off-site no tag; tree has typical form and structure; twig dieback in the crown.