

Protected Tree Report

December 5, 2016

Report Prepared on Behalf of:

**Mr. Elliot Kahn
1045 Olive LLC
1800 Century Park East, Suite 420
Los Angeles, California 90067**

Project Location:

**1045 S Olive St
Los Angeles, CA 90015**

Prepared by:

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1.0 Introduction

This arborist report discusses the impact of the proposed construction of a mixed used residential building near the trees on the property located at 1045 S Olive, Los Angeles, CA. The property has no trees existing on the site. However, there are four ficus microcarpa and 1 pink trumpet off-site (OS) street trees located on S Olive St (see Matrix of Trees). The ficus and pink trumpet trees are protected per Los Angeles Code Section 17.02. All five trees are proposed for removal. The project also includes installing 5 - 24" box pink trumpet trees or suitable species (see Attachment D - Landscape Plan).

Limits of Agreement

My examination of the trees is based on my visual inspection. My site examination and the information in this report is limited to the date and time the inspection occurred. The information in this report is limited to the condition of the trees at the time of my inspection. My examination is not considered as a tree risk assessment. This report is not intended as and does not represent legal advice and should not be relied upon to take the place of such advice.

Purpose and Use of Report

Mr. Kahn engaged the services of Michael Green to evaluate protected trees and prepare a report in accordance with the City of Los Angeles Tree Preservation Ordinance No. 177,404. This report presents my observations and opinions concerning the protected trees. Information in this report is limited to the condition of the trees during my inspection on October 15, 2016. The report is to be used by Mr. Kahn at his discretion.

2.0 Background and Project Description

The property is located on six lots combining for a total pre-dedicated square footage that is approximately 41,603 sq. ft. located in a commercial neighborhood. Post-dedicated, the property would be approximately 37,172 sq. ft. The site consists of existing mixed retail shops. The proposed footprint at grade is the entire property except for dedications along the alley, 11th St. and Olive St., as well as a 3 ft. wide easement along 11th St. extending 5 ft. below grade and 40 ft. above grade.

The ficus and pink trumpet trees are depicted on the attached Site Plan shown with tree I.D. numbers and are field tagged. All the trees are numbered as trees #OS-1 through #OS-5, with the ficus and pink trumpet trees listed as Protected Trees. Trees #OS-1 through #OS-5 are proposed for removal due to the construction of the building and reconstruction of the sidewalk for the project. There are also two empty tree wells along the 11th street frontage. The

topography of the site is flat. The proposed mixed use residential building was not under construction at the time of my inspection.

3.0 Observations

Each listed tree is assigned "Good," "Fair," "Poor" or "Dead/Dying" condition rating as a means to cumulatively measure their physiological health, structural integrity, anticipated life span, location, size, and specie type. A description of these ratings with the assigned tree numbers are presented below.

Good: These trees appear in overall good health, seem structurally stable, and have a high potential of providing long-term contribution to the site. They are the most suitable for retention and protection.

Applies to trees #OS-1 through #OS-5.

Fair: These trees require frequent care throughout their remaining life span, and provide less significance to the site than those assigned a high suitability. They may be worthy of retention, but not at the expense of significant design revisions.

Applies to no trees.

Poor: These trees are predisposed to irreparable health and structural problems that are expected to worsen regardless of measures employed. They are the most suitable for removal.

Applies to no trees.

Dead or dying: Applies to no trees.

Grading and construction

Construction is occurring near trees #OS-1 through #OS-5. The impact to the protected trees is very significant because the trees' structural roots will be disturbed¹ as a result of the proposed reconstruction of the existing sidewalk.

¹ <http://www.gufo.org/wp-content/uploads/2009/08/Trees-Critical-Root-Zones-and-Construction.pdf>

Matrix of Trees

Tree no. Tag	Tree Species	Condition	DBH - Inches	Height - Feet	Canopy Width - Feet	Canopy Depth - Feet	Suitability for Fencing	Type	Dimensions	Recommendation	Mitigation
OS-1	Ficus microcarpa <i>Indian Laurel Fig</i>	Good	20"	40'	38' x 40'		Low	NA	NA	Remove	Replace with one 24" box Pink Trumpet <i>Handroanthus heptaphyllus</i> or suitable species
OS-2	Ficus microcarpa <i>Indian Laurel Fig</i>	Good	20"	40'	40' x 40'		Low	NA	NA	Remove	Replace with one 24" box Pink Trumpet <i>Handroanthus heptaphyllus</i> or suitable species
OS-3	Ficus microcarpa <i>Indian Laurel Fig</i>	Good	21"	40'	40' x 40'		Low	NA	NA	Remove	Replace with one 24" box Pink Trumpet <i>Handroanthus heptaphyllus</i> or suitable species
OS-4	Ficus microcarpa <i>Indian Laurel Fig</i>	Good	16"	40'	40' x 36'		Low	NA	NA	Remove	Replace with one 24" box Pink Trumpet <i>Handroanthus heptaphyllus</i> or suitable species
OS-5	Pink Trumpet Tree <i>Tabebuia impigginosa</i>	Good	1"	10'	5' x 5'		Low	NA	NA	Remove	Replace with one 24" box Pink Trumpet <i>Handroanthus heptaphyllus</i> or suitable species

No trees are proposed for perseveration; however, tree preservation guidelines are provided in this report.

4.0 Tree Preservation Guidelines

Construction activities near trees may have long-term effects on trees. Trees vary in their ability to adapt to altered growing conditions. Mature trees have established stable biological systems in the pre-existing physical environment. Disruption of this environment by construction activities interrupts the tree's physiological processes causing depletion of energy reserves and a decline in vigor, which may result in a tree's death. Typically, this reaction develops between one to three years but symptoms may not show for many years after disruption. The tree protection regulations are intended to guide a construction project to ensure that appropriate practices will be implemented in the field to eliminate undesirable consequences that may result from uninformed or careless acts, and preserve both trees and property values.

Best Management Practices (BMP) are designed to preserve and protect tree health by avoiding damage to tree roots, trunk, or crown. Site development and prior planning is an important component to avoid disturbance within the Tree Protection Zone (TPZ) for all trees designated for protection. BMP consists of avoiding any activity near protected tree that disturbs or harms the tree. Tree protection provides for the physical protective barriers during any site disturbance that may impact protected tree and their roots such as grading, building construction and maintenance, infrastructure and utility installation and maintenance, and other landscape changes. These impacts may affect the structural integrity and stability of protected trees.

The proposed trees designated for protection (Matrix of Trees) must be protected by the contractors in the TPZ. The trees listed in this report under "preserve" are suitable for preservation, and have the potential for longevity at the site. If all of my recommendations and City regulations are followed, the trees proposed for retention (Matrix of Trees) will be preserved and protected. The trees proposed for retention (Matrix of Trees) are rated for suitability for preservation based upon age, health, structural condition, and ability to safely coexist within a development environment.

5.0 Tree Protection Measures

Recommendations presented within this section serve as general design guidelines to help mitigate or avoid damage in conformance with the City requirements. They are subject to revision upon reviewing the project plans and the Project Arborist should be consulted in the event any cannot be feasibly implemented. Please note any referenced distances from trunks are intended from the closest edge (face) of their outermost perimeter at soil grade.

5.1 Design Guidelines

1. In the TPZ, all trenching, soil scraping, compaction, mass grading, finish-grading, over excavation, sub excavation, swales, bio swales, storm drains, equipment cleaning, stockpiling/dumping of materials, and equipment operation shall be avoided. Where an impact encroaches slightly within a setback, it can be reviewed on a case-by-case basis by the Project Arborist to determine appropriate mitigation measures.
2. All existing unused lines, pipes, and vaults within the TPZ should be abandoned and cut off at existing grade rather than being dug up and causing subsequent root damage.
3. The permanent and temporary drainage design, including downspouts, should not require water being discharged within the TPZ. The drainage should not require trenching for storm drains or swales within the TPZ.
4. Underground utilities and services should be routed beyond the TPZ. Where this is not feasible, the section of line(s) within the TPZ should be directionally bored by at least 4 feet below existing grade or installed by other means to avoid open trench.
5. The future staging area and route(s) of access should not be in TPZ.
6. Restrict spoils and runoff from traveling into root zones, the future erosion control design should establish any silt fencing or straw wattles away from the tree's trunk (not against it) and as close to the canopy's edge as possible.

The proposed landscape design should conform to the following additional guidelines:

7. Plant material installed beneath the canopies of the protected trees, if applicable, must be appropriate and planted at least 3 feet from the trunk.
8. Irrigation should not spray the trunk.
9. Irrigation, valves, and lighting features should be placed so that no trenching occurs within the TPZ.
10. New property fencing and fence posts should be placed at least 2 feet from the tree trunk.
11. Groundcover beneath the canopy should be comprised of a 5" layer of wood chips or other high quality mulch. Keep mulch at least 6 inches from trunk.
12. Tilling, ripping, and compaction within the TPZ should be avoided.

13. Bender board or other edging material proposed beneath the canopy should be placed at existing grade.
14. Roots with diameters of 2 inches or greater should not be damaged or cut without prior assessment of the Project Arborist. An hourly rate shall be charged for these inspections.

Required fencing should not be removed until completion of project.

5.2 During Demolition and Construction

1. Tree trunks shall not be used as winch supports for moving or lifting heavy loads.
2. The removal of existing features within the TPZ must be carefully performed to avoid excavating into root zones.
3. Roots with diameters of 2 inches or greater should not be damaged or cut without prior assessment of the Project Arborist. An hourly rate shall be charged for these inspections.
4. Supplemental water will be needed to help mitigate root loss/disturbance.
5. Spoils created during digging shall not be piled or spread on unpaved ground within the TPZ.
6. Digging holes for fence posts within the TPZ should be manually performed. In the event a root of 2 inches or greater in diameter is encountered, the process should be shifted over by 12 inches and the process repeated.
7. Great care must be taken by equipment operators to position their equipment to avoid the trunks of protected trees. The Project Arborist can be consulted to provide a feasible solution if needed.
8. Dust accumulating on trunks and canopies during dry weather periods and should be periodically washed away every 3 to 4 months. Dust accumulating on trunks and canopies after grading should also be washed at the completion of the grading.
9. The disposal of harmful products is prohibited beneath the canopies. Herbicide should not be used within a TPZ on site or should be labeled for safe use near trees.

5.3 Soil Compaction

Soil compaction is a complex set of physical, chemical, and biological constraints on tree growth. Principal components leading to limited growth are the loss of aeration and pore space, poor gas exchange with the atmosphere, lack of available water, and mechanical impedance of

root growth. Soil compaction is considered to be the largest single factor responsible for the decline of trees on construction sites.

5.4 Grading Limitations within the Tree Protection Zone

1. Lowering the grade around trees can have an immediate and long-term effect on trees. Typically, most roots are within the top 3 feet of soil, and most of the fine roots active in water and nutrient absorption are in the top 12 inches.
2. Grade changes within the TPZ are not permitted. Tilling, ripping, and compaction within the TPZ should be avoided.
3. Grade changes outside the TPZ shall not significantly alter drainage.
4. Grade changes under specifically approved circumstances shall not allow more than 6 inches of fill soil or allow more than 4 inches of existing soil to be removed from natural grade, unless mitigated.
5. Grade fills over 6 inches or impervious overlay shall incorporate an approved permanent aeration system, permeable material, or other approved mitigation.
6. Grade cuts exceeding 4 inches shall incorporate retaining walls or an appropriate transition equivalent.

6.0 Mitigation Plan

A total of four ficus trees, trees #OS-1 through OS-4, and one pink trumpet tree, #OS-5 are proposed for removal. The City of Los Angeles Tree Preservation Ordinance No. 177,404 calls for a protected street tree replacement of 1:1, I recommend five 24-inch box replacement mitigation pink trumpet trees or suitable species (see Attachment D- Landscape Plan).

7.0 Conclusions

In my professional opinion, the project may proceed if the following conditions are met:

1. Trees #OS-1 through #OS-5 will be significantly impacted by the proposed construction of the building and reconstruction of the sidewalk and are not suitable for preservation.
2. This report is part of the set of plans given to the contractor. The contractor should be familiar with the specific instructions and responsibilities pertaining to protected trees. It

is recommended that a professional arborist be retained and meet with the contractor and his personnel prior to commencement of the project.

8.0 Recommendations

1. This report is part of the set of plans given to the contractor. The contractor should be familiar with the specific instructions and responsibilities pertaining to protected trees.
2. Trees #OS-1 through #OS-5 will be significantly impacted by the proposed construction of the building and reconstruction of the sidewalk and are not suitable for preservation; as a result, they should be removed. Their removal should be mitigated by five replacement 24-inch box pink trumpet trees or suitable species.
3. Protected trees should not be removed until approval is granted by the City of Los Angeles' Urban Forestry Division.
4. If additional site inspections by the Project Arborist are required, an hourly rate is charged.

Fenced enclosures should be erected around trees to be protected. This will achieve three primary goals:

- (1) Keep crowns and branching structure clear from contact by equipment, materials, and activities.
- (2) Preserve roots and soil condition in an intact and non-compacted state.
- (3) Identify the Tree Protection Zone in which no soil disturbance is permitted and activities are restricted, unless otherwise approved by the Project Arborist.

A 'Warning' sign should be prominently displayed on each protective enclosure. The sign will be a minimum of 8.5 inches x 11 inches and clearly state the following:

TREE PROTECTION ZONE
This Fence Shall Not be Removed

A Type II Tree Protection Fence should be preserved throughout the duration of the project. The fences should enclose the area under the canopy drip line or TPZ.

9.0 Definitions

1. Basal flair or root crown means the tree trunk where it emerges from the root system and flairs out to create the base of the tree.
2. Canopy means the area of a tree that consists primarily of branches and leaves.
3. Drip line means the outermost area of the tree canopy (leafy area of tree).
4. Root Protection Zone means the area within a circle with a radius equal to the greatest distance from the trunk to any overhanging foliage in the tree canopy.
5. Diameter at Breast Height (DBH) or Diameter at Standard Height means the diameter of the perimeter tree trunk at 4.5 feet (or 54 inches) above natural grade level. The diameter may be calculated by using the following formula: $DBH = \text{circumference at 4.5 feet} \times 3.142$ ($D=C \times \text{Pi}$).
6. Disturbance refers to all of the various activities from construction or development that may damage trees.
7. Drip line area means the area within X distance from the trunk of a tree, measured from the perimeter of the trunk of the tree at 54 inches above natural grade, where X equals a distance ten times the diameter of the trunk at 54 inches above natural grade.
8. Excessive Pruning means: removing in excess, one-fourth (25 percent) or greater, of the functioning leaf, stem or root area. Pruning in excess of 25 percent is injurious to the tree and is a prohibited act. Excessive pruning typically results in the tree appearing as a 'bonsai', 'lion's-tailed', 'lolly-popped' or overly thinned.
9. Root pruning may include the cutting of any root 2 inches or greater in diameter and/or severing in excess of 25 percent of the roots. Roots can only be pruned outside the drip line.
10. Structural defect means any structural weakness or deformity of a tree or its parts. A tree with a structural defect can be verified to be hazardous by a certified arborist.

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Fencing

The fence should enclose the area under the canopy drip line or TPZ of the tree to be saved throughout the life of the project, or until final improvement work within the area is required, typically near the end of the project. Tree fencing should be erected before demolition, grading or construction begins.



WARNING SIGN POSTED TO FENCING

This warning sign shall be posted to the fencing. A warning sign shall be prominently displayed on the fence. The sign shall be a minimum of 8.5 x 11 inches and clearly state: **WARNING - Tree Protection Zone - This fence shall not be removed according to Los Angeles Municipal Code (LAMC) Section 17.02.** For illustration purposes only

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Type II Tree Protection. For trees situated within a narrow planting strip, only the planting strip shall be enclosed with the require protective fencing in order to keep the sidewalk and street open for public use. Contractor is responsible for protecting roots.

For illustration purposes only.

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No Dumping Allowed Around the Protected Tree



USE OF HERBICIDE IS NOT ALLOWED WITHIN 20 FEET OF THE TREE'S DRIPLINE. Storage or parking vehicles, building materials, refuse, excavated materials spoils or dumping of poisonous materials on or around trees and roots. Poisonous materials include, but are not limited to, paint, petroleum products, concrete or stucco mix, dirty water or any other material which may be deleterious to tree health.

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Attachment A – Aerial Image



Figure 1. Google Earth Aerial April 23, 2014 depicting the four ficus trees (yellow circles) that existed prior to my site inspection on October 15, 2016 but were removed to allow for new construction. A very large ficus tree with destructive roots existed at the location of tree #OS-5, pink trumpet tree. The tree appears to have been removed to accommodate the construction of a renovated sidewalk. Approximate property boundary outlined in red.

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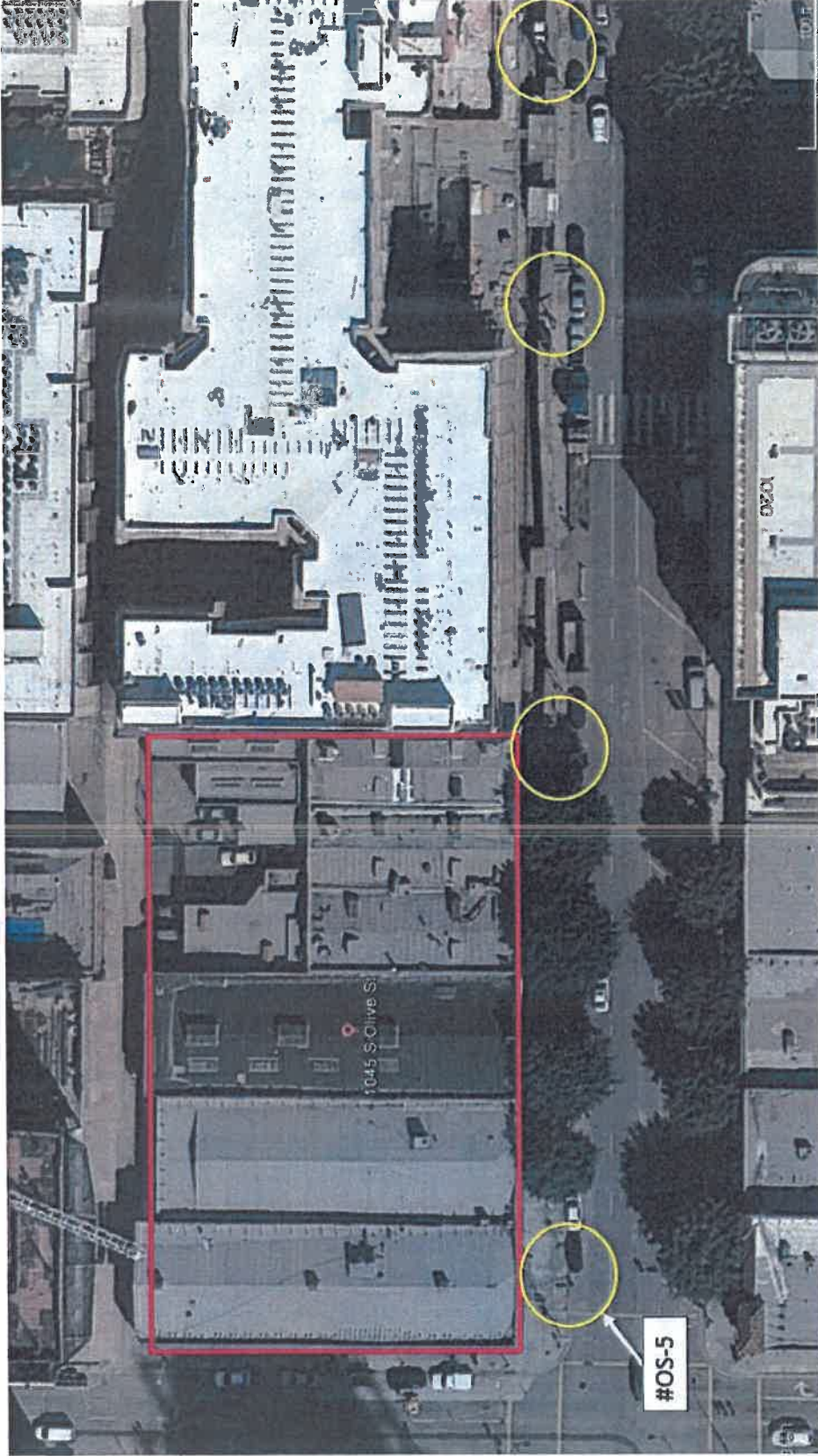
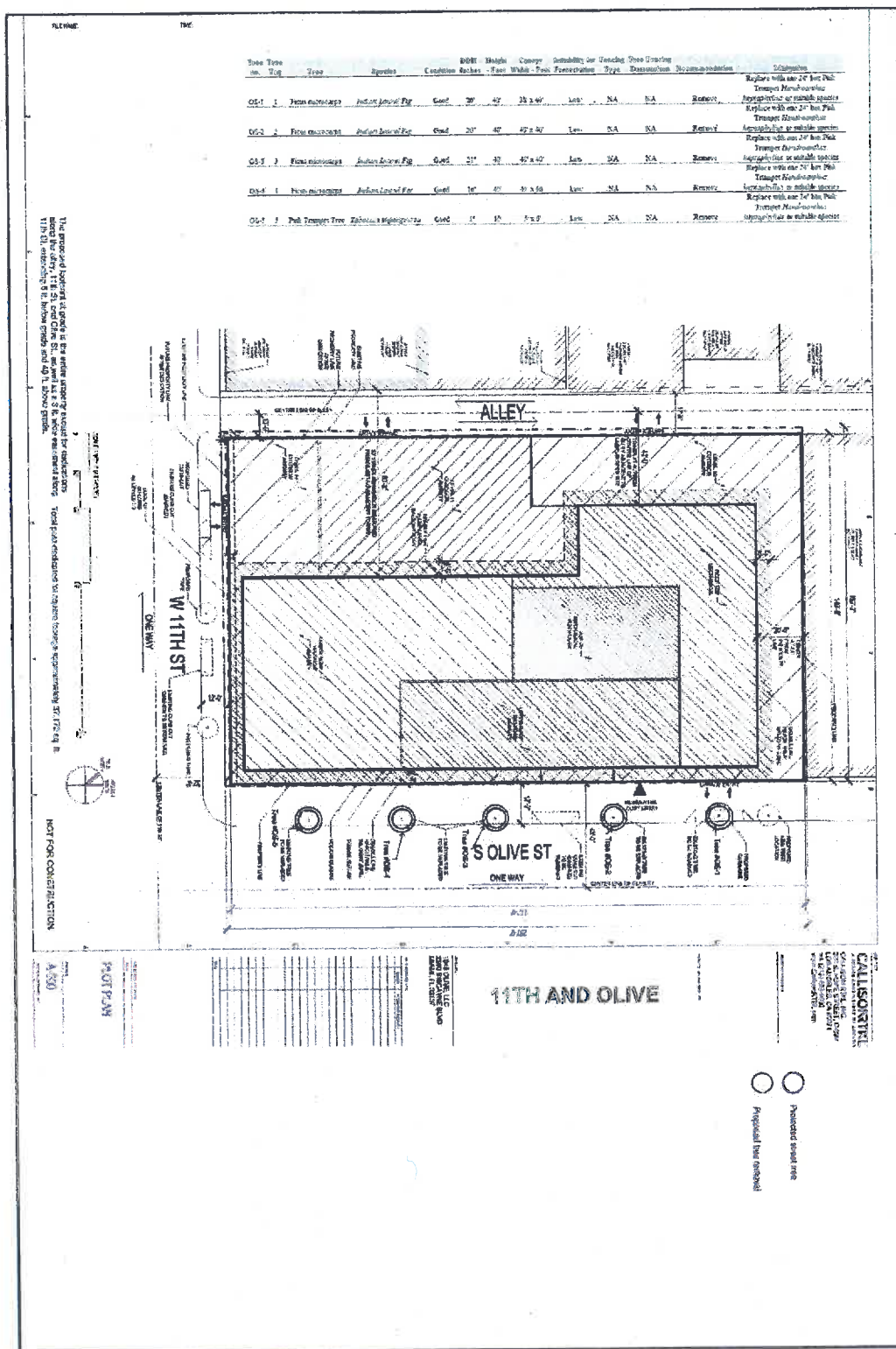


Figure 2. Google Earth Aerial February 2, 2016 depicting the location of the four prior existing ficus trees (yellow circles). A very large ficus tree with destructive roots existed at the location of tree #OS-5, pink trumpet tree. The tree appears to have been removed to accommodate the construction of a renovated sidewalk. Approximate property boundary outlined in red.

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Attachment C – Site Plan



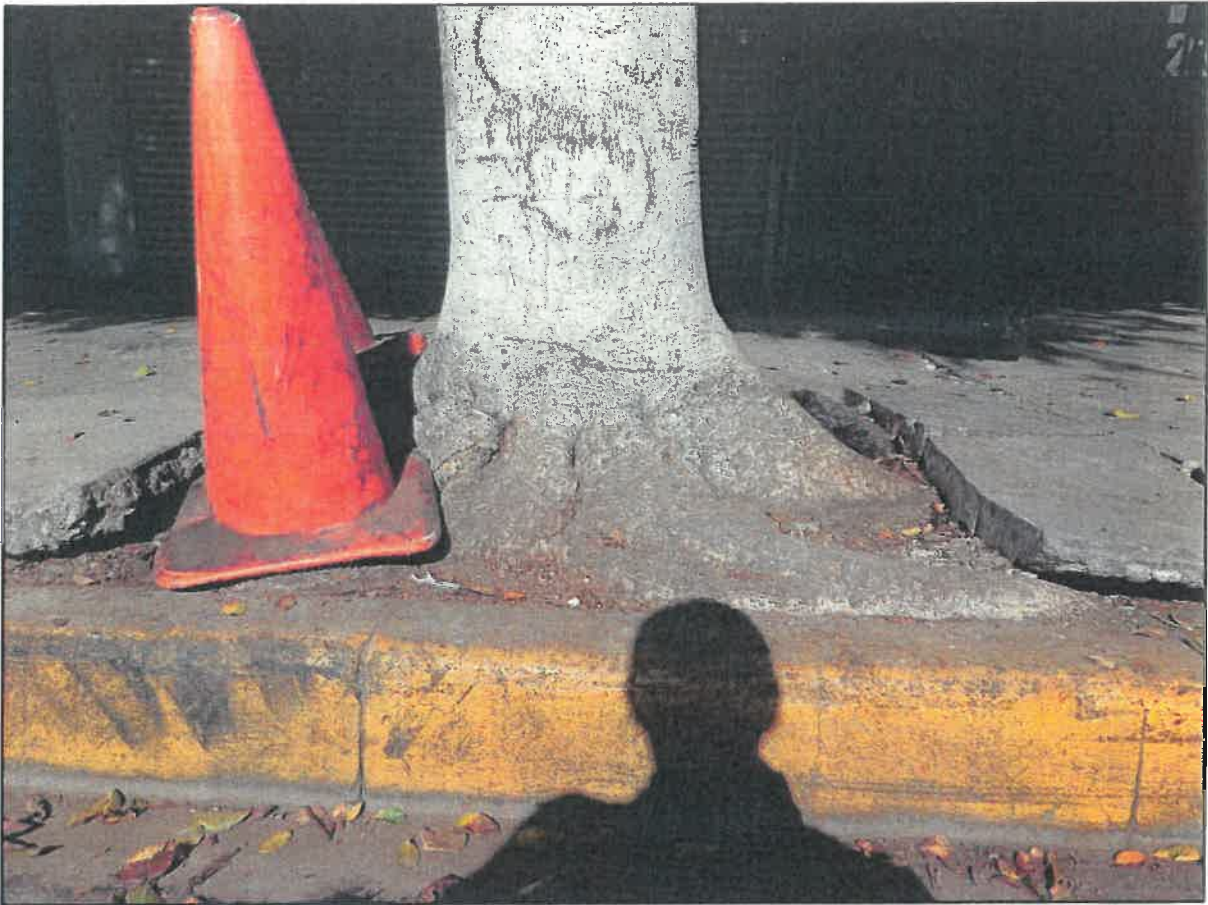
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Attachment E – Site Photos



Tree no. OS-1

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Extensive surface roots from ficus tree no. OS-1 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Tree no. OS-2

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Extensive surface roots from ficus tree no. OS-2 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Extensive surface roots from ficus tree no. OS-2 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Tree no. OS-3

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Extensive surface roots from ficus tree no. OS-3 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Extensive surface roots from ficus tree no. OS-3 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Extensive surface roots from ficus tree no. OS-3 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Tree no. OS-4

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Extensive surface roots from ficus tree no. OS-4 that are causing destructive damage to surrounding sidewalk and city hardscape.

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Tree no. OS-5.

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This photo, dated March 2015, depicts the ficus tree that existed prior to the planting of the current street tree no. OS-5 pink trumpet tree. The previously existing ficus tree had extensive surface roots that were causing damage to surrounding sidewalk and city hardscape.

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Report Prepared by:

Michael Green

This arborist report is prepared by Michael Green. He has over 10 years of experience in the landscape industry. His background includes hands-on experience in tree care, plant health care, landscape maintenance, landscape construction, and irrigation design and water management. His experience in the landscape industry makes him an excellent choice for preserving trees during construction. He has a bachelor's of science degree in agribusiness from California State Polytechnic University, San Luis Obispo.

Certifications, Licenses, and Professional Associations

Registered Consulting Arborist No.: 602, American Society of Consulting Arborists (ASCA)
Certified Arborist, International Society of Arboriculture (ISA)
Certified Irrigation Auditor (IA)
Licensed California Landscape Contractor (C-27)
California Licensed Pesticide Applicator, (QAL)
Tree Risk Assessment Qualified (ISA)

Assumptions and Limitations

My field methods are evaluated with a 100 percent ground visual survey. No climbing, excavating, coring, boring, sounding of the trunk, or drilling was performed. Trees that require an additional inspection for risk and hazard evaluation beyond the visual ground inspection will be billed under a separate proposal. All inspections are visual ground inspections and are not considered as a risk inspection. No digging, root collar excavation, drilling, coring, or climbing was performed. A risk assessment includes but not be limited to a root collar excavation, climbing the tree, and further examining the upper side of branches and upper trunk and stems. My site examination and the information in this report are limited to the date and time the inspection occurred. The information in this report was limited to the condition of the trees during my inspection.

Additional inspection(s) require a separate agreement between both parties in writing. Site inspections only provide a "snapshot" of the tree. Changes in environmental conditions such as but not limited to construction, surrounding site changes, flooding, root damage, fires, pruning practices, lack of maintenance, grade changes, and wind can impact the tree's conditions, structure, safety, risk factor, and health, etc. A consulting arborist cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and/or below ground under the tree. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for a specified period of time. Likewise, remedial treatment does not guarantee

outcome or results. The web provides numerous tree risk assessment sites that offer tips for tree care and detecting and/or identifying potential tree hazards. If the client believes the tree's condition has changed since the date of this inspection, the arborist should be contacted ASAP. Future inspections, canopy inspections, and root collar examinations are under the client's discretion.

Evergreen Arborists Consultants, Inc., its employees, or related companies, makes no guaranties, express or implied to the trees health, risk, hazard, condition, potential for failure or future condition. Evergreen Arborists Consultants, Inc., its employees shall not be liable to client/owner or any other party(s) for loss of property, loss of life, loss of use, loss of profits or income(s), special damages, incidental damages, consequential damages, incidental damages, or damages arising from the failure of inspection(s) or weather conditions. The client shall hold this arborist harmless against any and all claims for injuries to persons or property on the premises.

A consulting arborist is a tree specialist who uses 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. Clients may choose to accept or disregard the recommendations of the arborist or seek additional advice. Any treatment(s), such as pruning and removal of trees, but not limited to, property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. are beyond the scope of this work. This arborist relies and accepts information from his client to be complete and accurate. The client hiring this arborist accepts full responsibility for authorizing the recommended treatment(s) or remedial measure(s) and holds this arborist harmless. Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.