APPENDIX C

Tree Inventory and Evaluation

Consulting Arborist's Report

Tree Inventory & Evaluation

For: 5001 Wilshire Boulevard

Prepared for: **Mr. Michael Knight**
Urban Arena
3195 Red Hill Avenue, Loft F
Costa Mesa CA 92626

Prepared by: **Arborgate Consulting, Inc.**
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1131 Lucinda Way
Tustin, CA 92780
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Date: **February 11, 2021**

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Summary

Urban Arena landscape architects are involved in the design of the new landscape for a new bulding replacing the existing mini-mall at 5001 Wilshire Boulevard, in Los Angeles. Michael Knight requested that I inventory and evaluate all street trees and all others of significant size trees inside the project area. He also requested that I determine their health and condition, and provide professional opinions regarding their future dispensation and report as appropriate.

There is only one street tree, and it is on Highland. There are no adjoining street trees on the other surrounding streets. The existing street tree is in a poor state of health and structure. The street tree in this report is a large Arizona ash. The main limb structure is codominant with included bark. It has been headed back and lion-tailed. The bark on the trunk below the limbs is popping off, which is considered a serious warning of possibly imminent limb or trunk failure.

Four other trees are listed herein due to being near or over 8-inch caliper, two are silver maple and two are compact brush cherry. The two silver maples are in a small planter near and below the ash. The compact brush cherry are with the dumpsters in an island behind 5001.

The amount of site work planned appeas to occupy nearly the entire site. The four trees on site will need to be removed. They are not protected species, only two are considered significant. There is no plan to remove the street tree, and if any work occurs near it, it will be protected.

Introduction

Assignment

Arborgate Consulting was asked to provide an arboricultural evaluation of five existing trees, one street tree and 4 site trees' health and condition, professional opinions and report as appropriate for the City of Los Angeles Urban Forestry division. The one street tree is on Highland, at the north edge of the site. There are no street trees on the Wilshire edge, the Citrus Avenue edge, or the Carling Way edge. Each tree was measured, photographed, and evaluated for health and structure. Recommendations are included to preserve the one street tree, but no others can be saved.

Background

This site has a large modern shopping center, with a number of small businesses. Along Wilshire there are other similar low-rise centers. The owner has plans to build a larger facility, suitable for this location on Wilshire Boulevard.

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Report

General Findings

The numbering of the trees begins with the #1 Arizona ash street tree and moves westward across the north edge of the site. There is only one street tree, and it is on Highland. It is in a 4.5' wide parkway. Street trees on the rest of the block are of different genera. Camphors and jacarandas are more common street trees on this section of Highland. Arizona ash is not a common street tree in southern California, and it is not listed in Street Trees Recommended for Southern California. The species and most of the genus is known for large shallow roots. This specimen has the typical large and shallow roots and is starting to lift the sidewalk. Its structure is poor, due to being codominant, with severe included bark, and then being headed and lion-tailed.

There are two silver maples (#2 &3) on the other side of the sidewalk, in a relatively small planter. The more northern tree is suppressed under the Arizona ash. Two old flush cuts are bleeding and there are many epicormic shoots, probably from over-pruning. The second maple is in front of the other in the same planter. This planter has far too little root space for even one silver maple. The second one is slightly larger, probably due to not being suppressed and having less competition with the ash tree. Silver maple is not even considered a good species in more northern climates. The are fast growing and would not survive long in this planter, even if the project was not built.

Trees #4 &5 are commonly grown as shrubs or hedges. Compact brush cherry could be a decent small tree, but both are in the same small finger island in the back parking area. Neither was trained to be a tree, but in their small size, it doesn't matter that much, but they would never have an adequate life span with two in such a small root space.

Plans for the site are not complete. However, it is fairly certain that the site trees will be removed and that the street tree will probably be retained.

Matrix of Findings

Tree #1 is a street tree on Highland. The others are all site trees in the north part of the site.

A lower case "m" preceding an abbreviation indicates a minor condition.

Tree#	Species	DBH	Ht.	Wd.	Health	Structure	Clearance radius	Comments
1	Fraxinus velutina	22.5	60	45	C	D	16	Hd Lt cod inc DL Sh
2	Acer saccharinum	7.6	20	15	C-	C-	6	Epi, FC-bleeds, Db sup
3	Acer saccharinum	10.6	20	15	C-	C	8	Cod epi Sh mDb
4	Syzygium paniculatum	5.8	15	9	B	C	4.5	CrR cod Xing Sh
5	Syzygium paniculatum	6+3	15	9	B	C	6	CrR cod Xing Sh

Abbreviations

1sRF = one-sided root flare
Cod = codominant
CrR = crowded roots
Db = dieback
DBH = diameter at breast height (4.5')
DL = dogleg
Epi = epicormic shoots
FC = flush cut
Hd = headed
Inc = included bark
Epi = epicormic shoots
Hd = headed
Sh = shallow rooted
Sup suppressed
Xing = crossing branches

Botanic name – common name cross-reference

Acer saccharinum	silver maple
Fraxinus velutina	Arizona ash
Syzygium paniculatum 'Newport Compacta'	compact brush cherry

Analysis

For this section of Highland, removal and replacement of most of the existing trees would be necessary soon. The parkway is narrow and the trees are big. In addition, the trees are of several mixed genera. The one particular tree adjoining this site is a pooly structured and shallow rooted Arizona ash. It is hard to believe Arizona ash was ever on the approved list of street trees, and certainly it would not be suggested for such narrow parkways. It is amazing to me that it lasted this long.

The Urban Forestry Division will be in charge of whether or not this tree should remain, and if not, what species tree will replace it and whether or not root barriers are used. Using plastic root barriers around the edge of tree wells limits the roots to the tree well, and that reduces longevity. One other concern is that if the barrier settles or soil is placed over the top edge, roots will able to grow over the root barriers, and eventually cause pavement damage. This is the most common reason for root barriers to not succeed in containing and directing the roots downward. Roots that do get to the bottom of the root barrier can eventually come up again and still damage the paving. The most reliable way to extend street tree life span is to specify small species and maximize their root space.

Recommendations

Removal Recommendations

All site trees will be removed. Only the street tree will remain, and the City should require that it be removed and replaced as well. For these reasons no clearance recommendations are offered. It is the recommendation of this consultant that the street tree be removed. It has now outgrown the space provided, and it may pose a high level of risk.

Pruning Recommendations

All new trees should be inspected at the nursery, and if they need pruning, reject them before they are delivered.

After establishment of new trees, at the end of 2021, follow International Society of Arboriculture Best Management Practices, Part 1 Pruning, and ANSI A300, part 1 pruning standards when they are pruned.

Appendix

A. Bibliography

B. Resume

C. Verification of Credentials

D. Photographic Documentation

E. Glossary

A. Bibliography

1. American Association of Nurserymen, ANSI Z60, 1990. American Standard for Nursery Stock. American Association of Nurserymen
2. Harris, R. W., and Clark, J. R., and Matheny, N. P.1999. *Arboriculture - Integrated Management of Landscape Trees, Shrubs, And Vines,* 3rd Edition. Prentice Hall 684
3. American National Standards Institute, A300, part 1 Pruning. Tree Care Industry Association, 136 Harvey Rd, Ste B101, Londonderry, NH 03053
4. Best Management Practices – Pruning, International Society of Arboriculture, P.O. Box 3129, Champaign IL 61826-3129
5. Whitcomb, Carl E. Establishment and Maintenance of Landscape Plants, 1987, Lacebark Inc., Stillwater, Ok.

B. Resume: Greg Applegate, RCA #365

PROFESSIONAL REGISTRATIONS:

American Society of Consulting Arborists #365
International Society of Arboriculture, Certified Arborist Number WE-0180a
American Society of Consulting Arborists – Tree & Plant Appraisal Qualified
International Society of Arboriculture, Tree Risk Assessment Qualified

EXPERIENCE:

Mr. Applegate is CEO of Arborgate Consulting, Inc. and principal consulting arborist. He has been in the horticulture field since 1963, providing professional arboricultural consulting since 1984 within both private and public sectors. His expertise includes appraisal, tree preservation, diagnosis of growth problems, construction impact mitigation, expert witness work, tree risk assessment, pruning supervision and specifications, species selection and construction monitoring.

Mr. Applegate has consulted for insurance companies, campuses, developers, theme parks, homeowners, homeowners' associations, landscape architects and contractors, property managers, attorneys and government.

Notable projects on which he has consulted are: Disneyland, Disneyland Hotel, DisneySeas-Tokyo, Disney's Wild Animal Kingdom, the New Tomorrowland, Disney's California Adventure, Disney Hong Kong project, Knott's Berry Farm, J. Paul Getty Museums, Tustin Ranch, Newport Coast, Crystal Court, Newport Fashion Island Palms, Bixby Ranch Country Club, Playa Vista, Laguna Canyon Road and Myford Road for The Irvine Company, Beverly Hilton Hotel, MWD-California Lakes, Paseo Westpark Palms, Loyola-Marymount campus, Cal Tech, Cal State Long Beach, Pierce College, The Irvine Concourse, UCI, USC, UCLA, LA City College, LA Trade Tech, Riverside City College, Crafton Hills College, MTA projects, and the State of California review of the Landscape Architecture License exam (re: plant materials)

EDUCATION:

Bachelor of Science in Landscape Architecture, California State Polytechnic University, Pomona 1973
Arboricultural Consulting Academy (by ASCA) Arbor-Day Farm, Kansas City 1995
Continuing Education Courses in Arboriculture, required to maintain Certified Arborist status and for ASCA registration

PROFESSIONAL AFFILIATIONS:

American Society of Landscape Architects (ASLA), Full Member
American Society of Consulting Arborists (ASCA), Full Member
International Society of Arboriculture (ISA), Regular Member
California Tree Failure Report Program, UC Davis, Participant
Street Tree Seminar (STS), Member
California Oak Foundation, Member

COMMUNITY AFFILIATIONS:

ASCA, Industry definitions committee and A3G committee	2009-2012
Landscape Architecture License Exam, Reviewer, Cal Poly Pomona	(1986-90)
American Institute of Landscape Architects (L.A.) Board of Directors	(1980-82)
California Landscape Architect Student Scholarship Fund - Chairman	(1985)
International Society of Arboriculture - Examiner-tree worker certification	(1990)
Guest lecturer at UCLA, UCI, Cal Poly, Saddleback College, & Palomar Junior College	
ASCA web site, west coast tree question responder	(2007 – 2015)

C. Verification of Current Registration and Certifications

The International Society of Arboriculture

Hereby Announces That

Gregory W. Applegate

Has Earned the Credential

ISA Certified Arborist ®

By successfully meeting ISA Certified Arborist certification requirements through demonstrated attainment of relevant competencies as supported by the ISA Credentialing Council

Caitlyn Pollihan
CEO & Executive Director

28 July 1997	30 June 2021	WE-0180A
Issue Date	Expiration Date	Certification Number

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17024
PERSONNEL CERTIFICATION BODY
#0847
ISA Certified Arborist

The American Society
of
Consulting Arborists

in recognition of fulfillment of the requirements for

Registered Consulting Arborist® status

confers upon

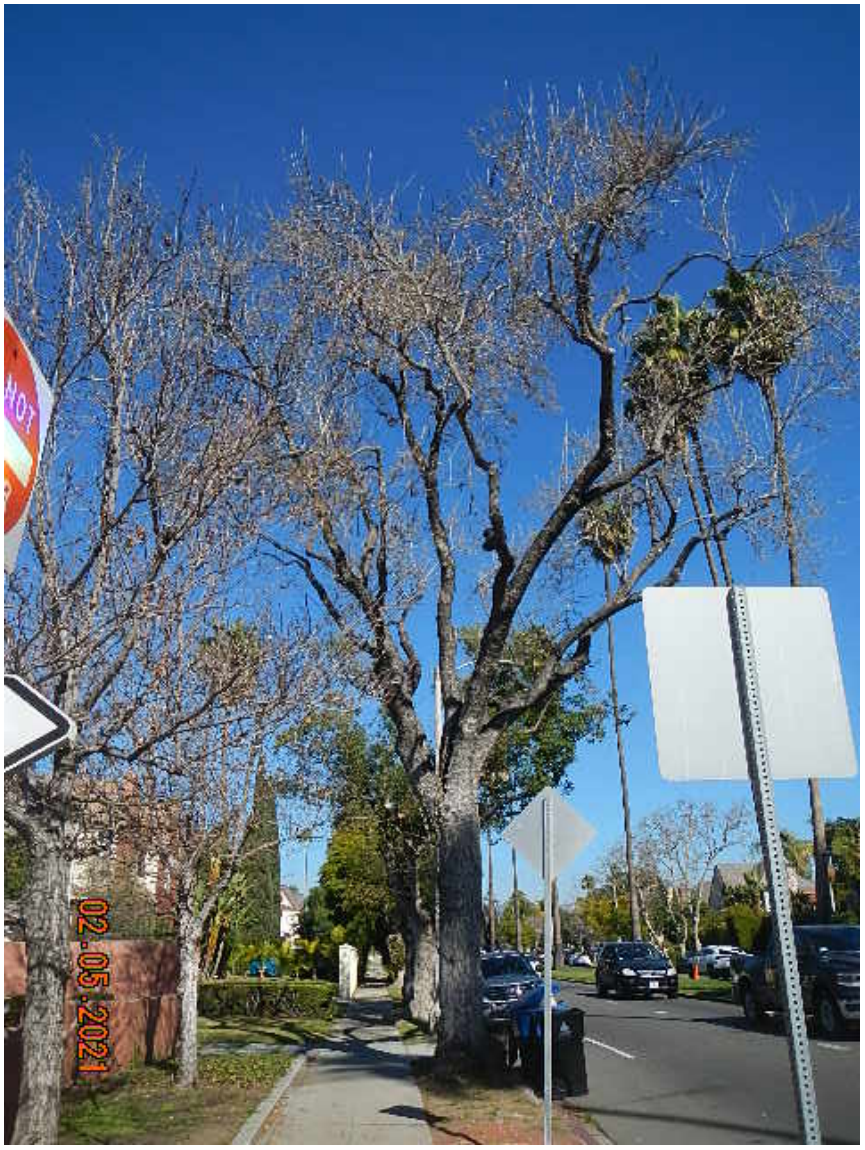
Gregory W. Applegate, RCA #365

Registered Membership

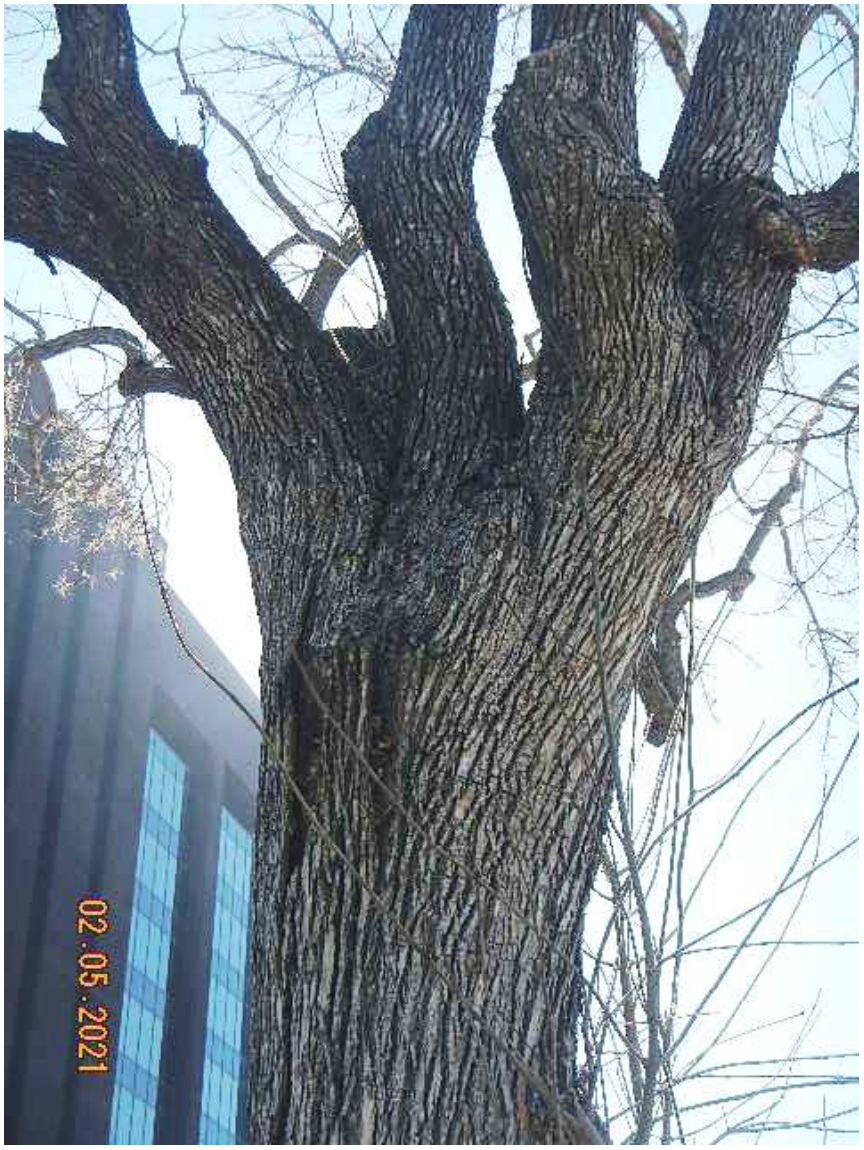
Dr. James R. Clark, RCA #357
President

Beth W. Palys, FASAE,CAE
Executive Director

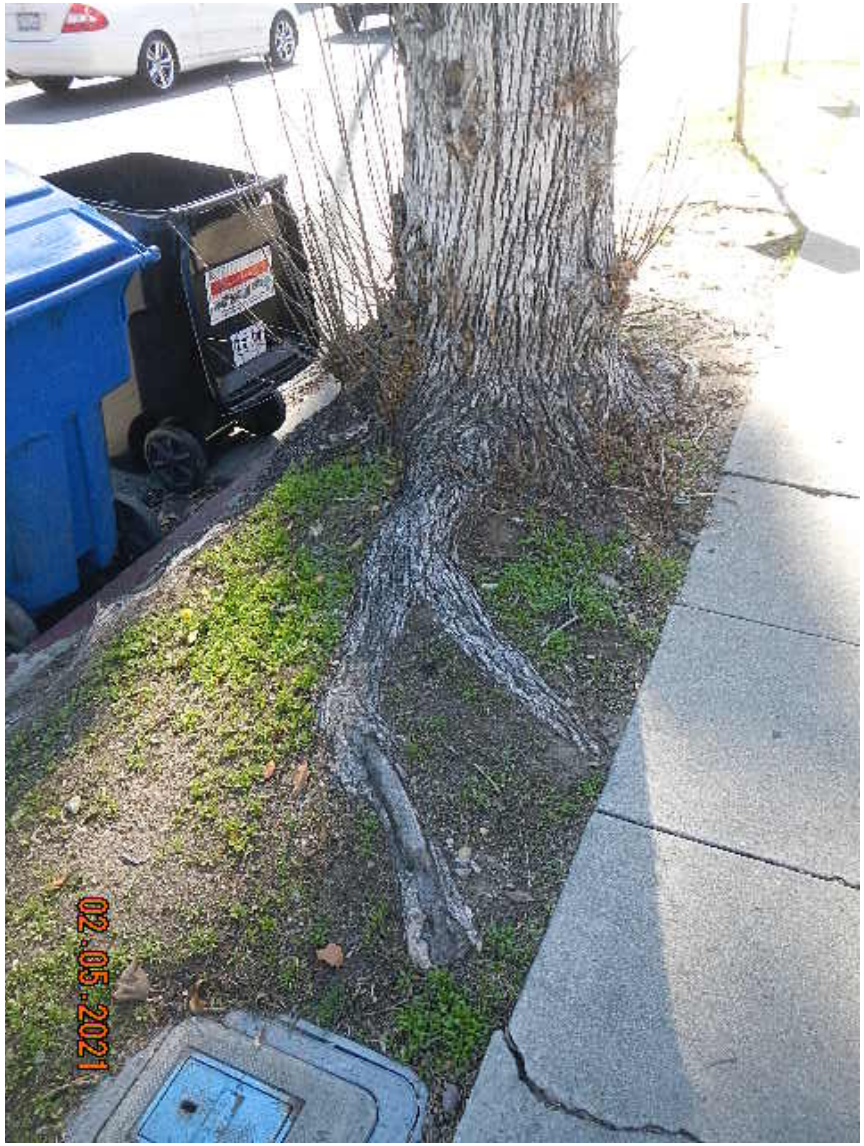
D. Photographs



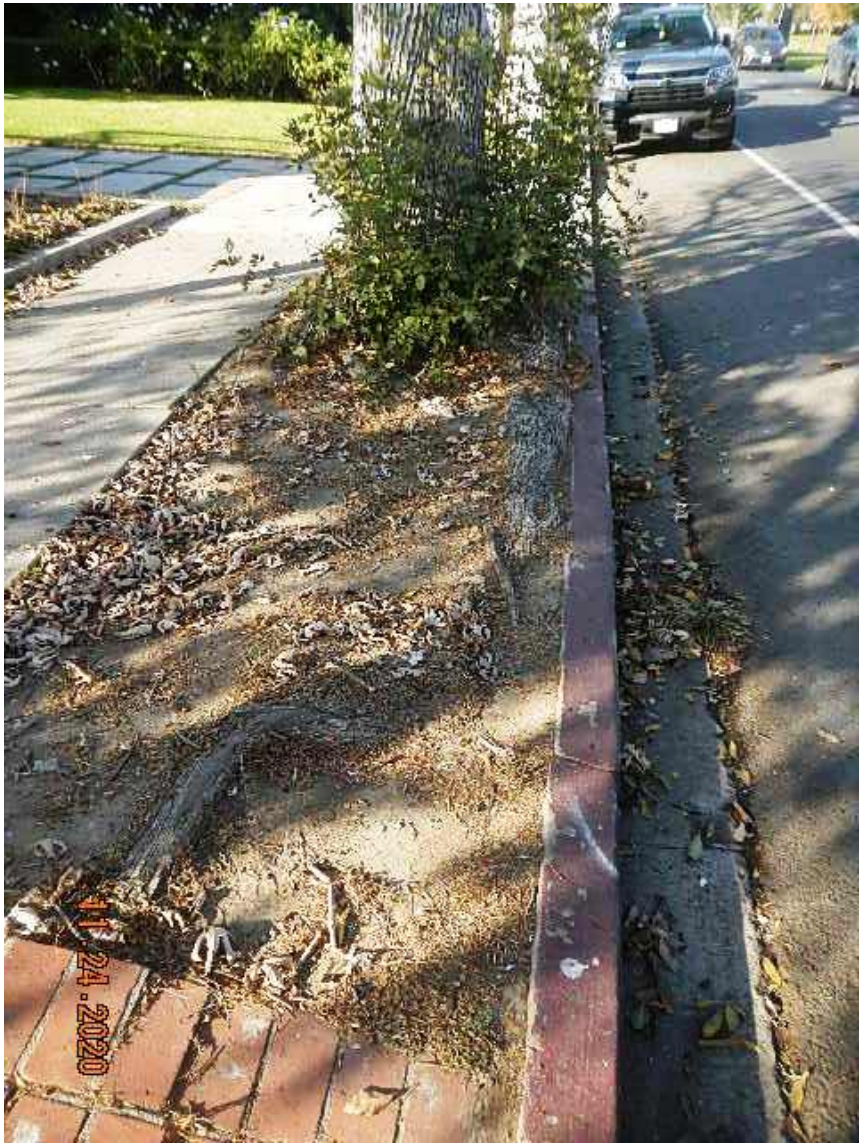
#1 Arizona ash on Highland has been lion-tailed and headed.



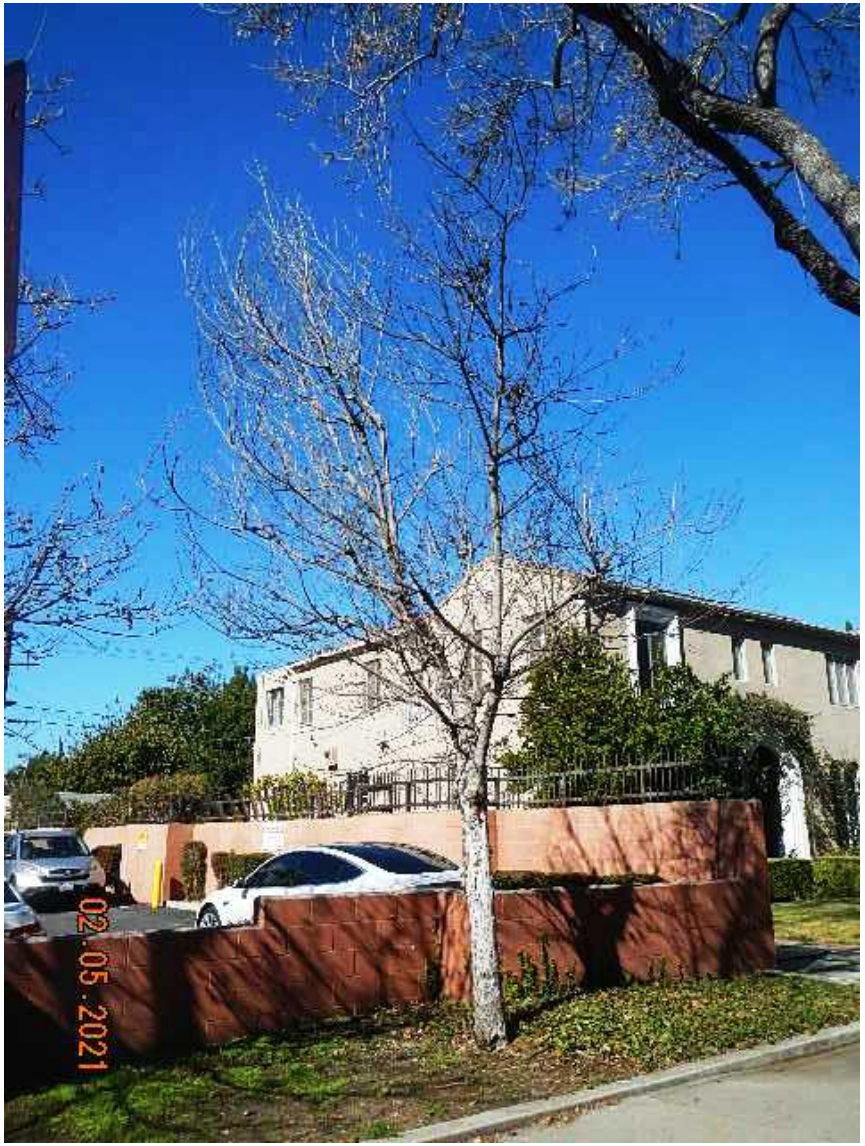
#1 Ash, note included bark and loose bark below – a warning sign



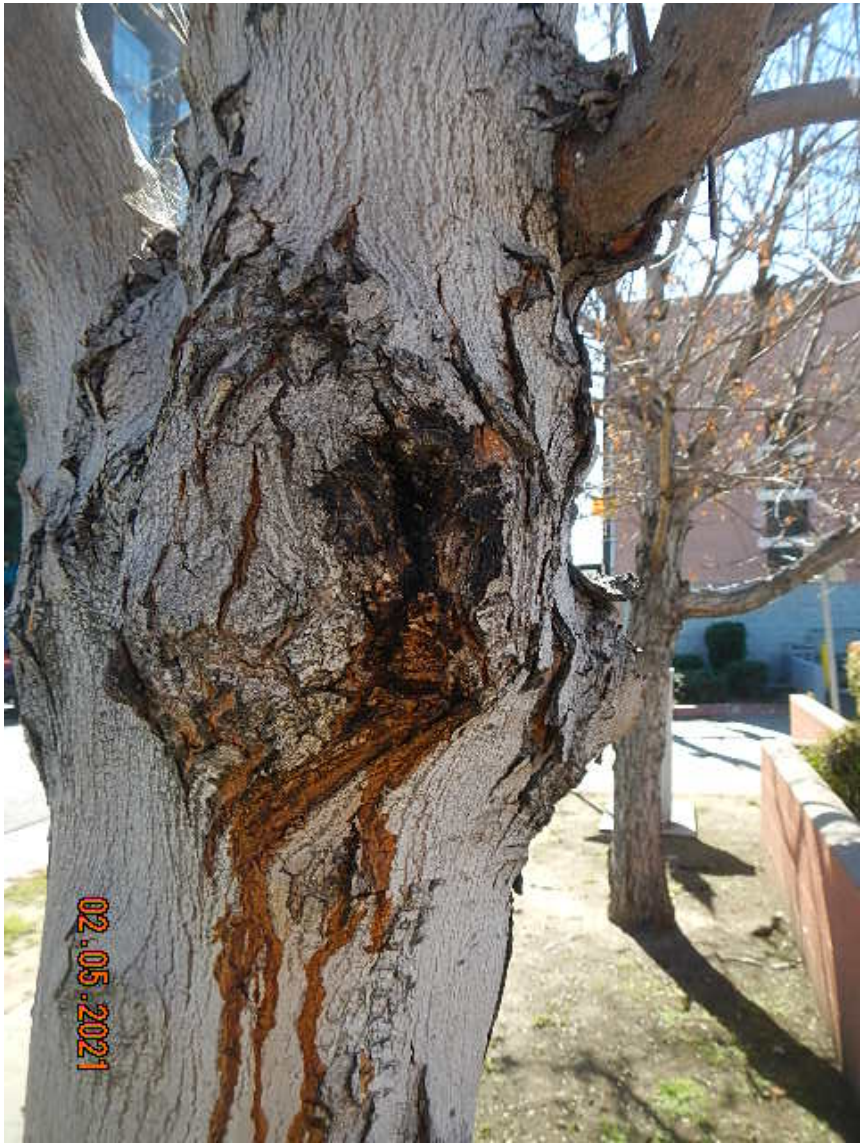
#1 Ash – note surface roots on the north side and damaged sidewalk.



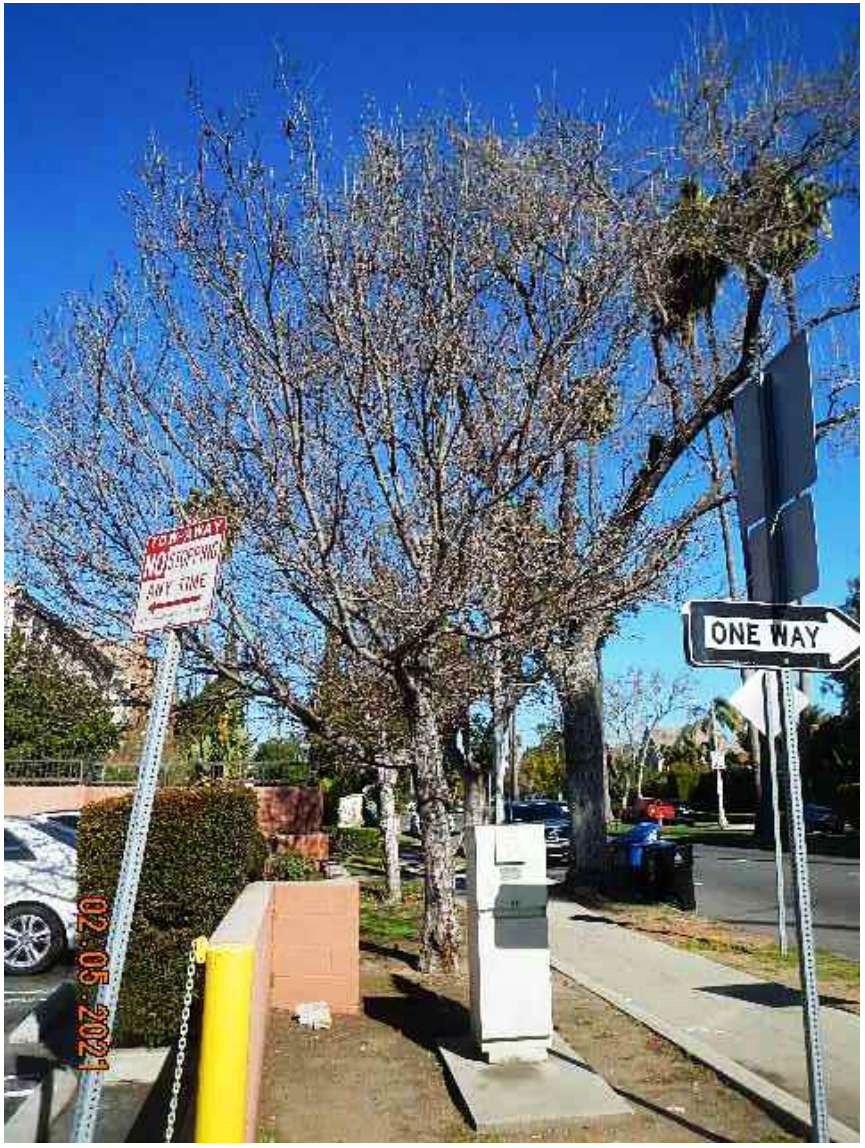
#1 Ash – note surface roots on south side



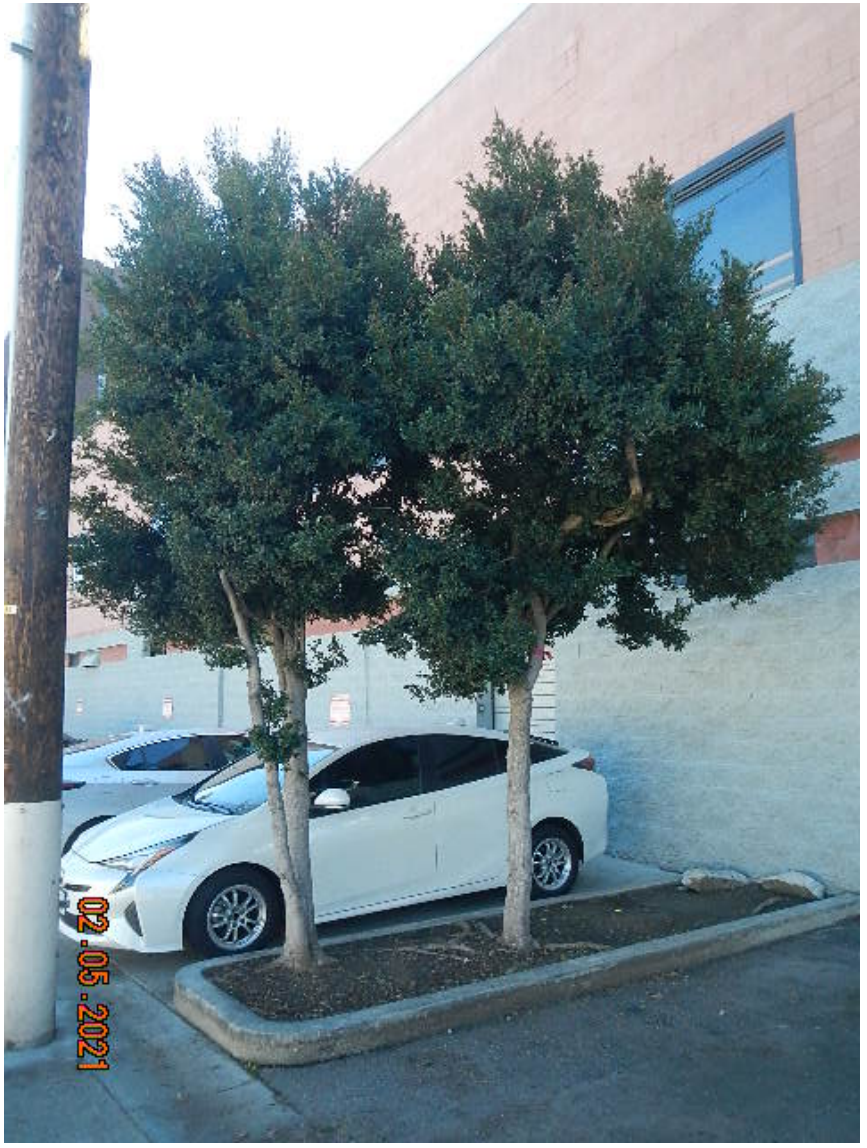
#2 Silver maple – note codominant leaders and overhead ash



#2 Maple, note bleeding old flush cuts.



#3 Silver maple – note narrow planter and crowded limbs.



#4 & 5 Compact brush cherries and shallow crowded roots.

E. Glossary

ANSI-A300	American National Standards Institute performance standards for the care and maintenance of trees, shrubs and other woody plants.
Arboricultural	Pertaining to the awareness, care, evaluation, identification, growing, maintenance, management, planting, selection, treatment, understanding, valuation and so forth of trees and other woody plants and their growing environments, particularly in shade and ornamental (non-crop/commodity) settings.
Arborist	A person possessing the technical competence through experience and related training to provide for or supervise the management of trees or other woody plants in a landscape setting.
ASCA	The American Society of Consulting Arborists, Inc. a professional society, as described in its by-laws.
Bark	Tissue on the outside of the vascular cambium. Bark is usually divided into inner bark - active phloem and aging and dead crushed phloem - and outer bark.
Caliper	Diameter of a nursery-grown or small size tree trunk. Larger trees are usually measured at 4.5 feet (see DBH) Trees with calipers 4 inches and below are measured at 6 inches above grade(ANSI Z60-1-1990) Trees above 4 inches, but still transplantable are measured at 12 inches above grade.
Canopy	The live, foliage-bearing part of a tree.
Climbing spurs	Sharp, pointed devices strapped to a climber's lower legs used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers
Codominant	Leaders equal in size and relative importance, developed from 2 apical buds at the top of a stem. Each codominant stem is an extension of the stem below it. There are no branch collars or trunk collars at the bases of codominant stems.
Compaction	(Soil Compaction) The compression of soil, causing a reduction of pore space and an increase in the bulk density of the soil. Tree roots cannot grow in compacted soil.
Conifer	Cone bearing shrub or tree, e.g. pines and cypress (or modified cone-like structure as in Podocarpus and Taxus)
Crotch	The union of two or more branches; the axillary zone between branches.
Crown	The upper portions of a tree or shrub, including the main limbs, branches, and twigs.

DBH	Diameter of the trunk, measured at breast height or 54 inches above the average grade. See caliper.
Decay	Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.
Deciduous	Trees or shrubs which shed their leaves at the end of each growing season.
Decline	Progressive reduction of health or vigor of a plant.
Dieback	Progressive death of buds, twigs and branch tissues, on individual limbs, or throughout the canopy.
Dripline	A projected line on the ground that corresponds to the spread of branches in the canopy; the farthest spread of branches.
Fertilization	The process of adding nutrients to a tree or plant; usually done by incorporating the nutrients into the soil, but sometimes by foliar application or injection directly into living tissues.
Flush cut	Pruning technique in which both branch and stem tissue are removed, generally considered poor practice
Foliage	The live leaves or needles of the tree; the plant part primarily responsible for photosynthesis.
Girdling root	A root that partially or entirely encircles the trunk and/or buttress roots, which could restrict growth and downward movement of photosynthate and/or water and nutrients up.
Heading	Pruning techniques where the cut is made to a bud, weak lateral branch or stub.
Included bark	Bark or cortex tissue that is included or trapped between close-growing branches. Usually found in narrow or tight crotches.
Leader	A main stem or branch of a tree that is (usually) codominant with other main stems.
Limb	A large lateral branch growing from the main trunk.
Lion-tailing	The removal of all, or a great deal of, the inner branches and/or watersprouts from the crown of a tree. Lion's Tailing is not an acceptable pruning practice, see ANSI A-300.10.1.7.
Pruning:	The selective removal of plant parts to meet specific goals and objectives
Root flare	The flared area at the base of a tree where the roots and trunk merge. Also referred to as the "root crown" or "root collar".
Root system	The portion of the tree containing the root organs, including buttress roots, transport roots, and fine absorbing roots; all underground parts of the tree.

Root zone	The area and volume of soil around the tree in which roots are normally found. May extend to three or more times the branch spread of the tree, or several times the height of the tree.
Scaffold limb	Primary structural branch of the crown.
Species	Taxonomic classification below genus.. 1. A group of plants with common characteristics or consistent differences in morphology, ecology or reproductive behavior, distinct from others of the same genus. 2. The basic unit in plant taxonomy; the Latin binomial consisting of the genus and specific epithet; it is both singular and plural.
Specimen	a tree or shrub large or striking enough to make an immediate, significant impact in a planting, or a single large plant in a conspicuous location in the garden. *Sunset Western Garden Book*
Street tree	A tree growing adjacent to dedicated roadways and within the city's right of way.
Stress	"Stress is a potentially injurious, reversible condition, caused by energy drain, disruption, or blockage, or by life processes operating near the limits for which they were genetically programmed." Alex Shigo
Trees	An arborescent woody plant, with a single or few trunks near the base
Trunk	The main stem or axis of a tree that is supported and nourished by the roots and to which branches are attached.
Vigor	Active, healthy growth of plants: ability to respond to stress factors.

Disclaimer

The best current information on tree evaluation has been applied. However, even when every tree is inspected, inspection involves sampling, therefore some areas of decay or weakness may be missed. Weather, winds and the magnitude and direction of storms are not predictable and some failures may still occur despite the best application of high professional standards. Future tree maintenance will also affect the trees health and stability and is not under the supervision or scrutiny of this consultant. Continuing construction activity such as trenching will also affect the health and safety, but are unknown and unsupervised by this consultant. Trees are living, dynamic organisms and their future status cannot be predicted with complete certainty by any expert. This consultant does not assume liability for any tree failures involved with this project.

Certification

I, Gregory W. Applegate, certify to the best of my knowledge and belief:

That the statements of fact contained in this report are true and correct. That the report analysis, opinions, and conclusions are limited only the reported assumptions and limiting conditions, and are my personal unbiased professional analysis, opinions and conclusions.

That I have no present or prospective interest in the vegetation that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

That my compensation is not contingent upon a reporting that favors the cause of the client, the attainment of stipulated result, or the occurrence of a subsequent event.

That my analysis, opinions, and conclusions were developed, and this report has been prepared, in conformity with the standards of arboricultural practice.

That I have made a personal inspection of the plants that are the subject of this report. No one provided significant professional assistance to the person signing this report.

Arborgate Consulting, Inc.
Gregory W. Applegate, ASCA, ASLA _____ Date 2-11-21
Registered Consulting Arborist #365
Certified Arborist WE-0180a