Walter Levison
CONSULTING ARBORIST

ISA Tree Risk Assessment Qualified ASCA Registered Consulting Arborist #401 ISA Certified Arborist #WE-3172A

3/20/2022

RFQ – CONSULTING ARBORIST FOR THE TOWN OF LOS GATOS

Jennifer Armer, Planning Manager
Community Development Department
Planning Division
Civic Center
110 E. Main Street
Los Gatos, CA 95030

Dear Ms. Armer,

Thank you for allowing Walter Levison, Consulting Town Arborist for Town of Los Gatos (2015 through current date), to submit a proposal for the position of consulting town arborist with the Town of Los Gatos Planning Division.

The following is Walter Levison's formal re-application for his current position, and includes all of the RFQ submittal requirements per the Request for Qualifications (RFQ) letter dated March 8, 2022 received from your office.

1. Introduction

Statement of Interest

Walter Levison, Consulting Arborist (WLCA) is a sole proprietorship working out of Millbrae, California: approximately 35 to 45 minutes from Los Gatos downtown. Walter Levison is the sole proprietor, owner, and operator of this business and has been serving municipalities, universities, developers, engineers, architects, and environmental consulting firms full-time since January 1999. He worked as the on-call Consulting City Arborist for City of Belmont Planning Division from 1999 to 2020 (21 continuous years), and has been working as the on-call Consulting Town Arborist for Town of Los Gatos Planning Division from 2015 to 2022 (7 continuous years). Other major Clients include entities such as Stanford University and City of Millbrae Parks Department. WLCA's interest is in performing high quality, rapid turnaround (e.g. 7 to 30 day max.) arborist reports with tree protection and maintenance planning recommendations focusing on mitigation of site plan project tree impacts.

The Town of Los Gatos planning division on-call consulting work has been a regular part of WLCA's services since 2015, when WLCA initially contracted with planning division to provide as-needed services.

For the past 7 years to date, WLCA has maintained a friendly and professional demeanor with Town of Los Gatos Staff persons, working with Planning Division Staff to complete assignments of all scopes and sizes in a timely fashion. WLCA is committed to maintaining this same level of service into the future as part of this RFQ.

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Executive Summary

WLCA is formally re-applying for the 2022 Town of Los Gatos Consulting Arborist on-call position. His sole proprietorship Millbrae office is located in relatively close proximity to Town of Los Gatos, giving him the ability to respond rapidly to Town Staff work requests, whether the assignment be a single tree requiring TRAQ risk rating determination, or a large scale commercial site assessment project that requires complex tree protection analysis.

With 21 years of experience working with City of Belmont Planning Division Staff as the Contract Planning Arborist, 7 years of experience working with Town of Los Gatos Planning Division Staff as the Contract Planning Arborist, 5 years of experience working as the Hetch Hetchy Water System contract consulting arborist, and more than a decade of experience working on large scale Stanford University renovation projects for the University, WLCA's knowledge and ability to prepare high quality written reports in a rapid manner is recognized throughout the Bay Area and California.

WLCA's intent is to maintain the current working relationship with Town of Los Gatos Planning Division Staff, with continued preparation of high quality written arborist reports of all types, while communicating with Town Staff in the friendly, professional manner WLCA is known for.

This RFQ response dated 3/20/2022 includes all elements of the required submittal per Ms. Jennifer Armer's 3/8/2022 RFQ letter received by WLCA's office on 3/11/2022.

All single family residential site arborist reports with 20 or less trees will be performed at the regular $2,000 fee allotted for these projects per Town protocol, as of 2022.

Single family residential site arborist reports for sites with greater than 20 trees will be performed for the regular $2,000 fee allotted per Staff protocol, plus an additional consulting fee dependent on the actual number of additional trees beyond 20 count, and will be contingent upon Staff approval and applicant approval of the additional fee.

Commercial site type arborist report fees will depend on the number of trees requiring assessment by the consultant, and will be negotiated accordingly.

Reference Inserts:

- 2022 WLCA business brochure has been partially excerpted and included below in section 3.
- WLCA's 2022 rate sheet is included below in section 6.

Reference Attachments:

- 2022 WLCA Statement of Qualifications (SOQ), on PDF page #77.
- 2022 WLCA Municipal References (Partial), on PDF page #80.
- 2022 General Liability and Professional Liability Certificate, on PDF page #82.
- Two (2) recent arborist reports in PDF format are attached as samples of WLCA's work:
    - Sample report #1 is located on PDF page #12.
    - Sample report #2 is located on PDF page #44.
    - Refer also WLCA's numerous arborist reports prepared for Town of Los Gatos Planning Division Staff between 2015 and 2022 that were submitted electronically to various Staff planners.

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Additional Introductory Information

WLCA maintains both the International Society of Arboriculture (ISA) arborist certification and the American Society of Consulting Arborists (ASCA) registered consulting arborist (RCA) status, attending various functions to maintain a high level of current information regarding local northern California pests, diseases, and other factors that affect arboriculture in our geographic area. Both of these qualifications require the arborist to study and/or attend relevant seminars to gain continuing education units and maintain active status.

WLCA also maintains the International Society of Arboriculture (ISA) TRAQ (tree risk assessment qualified) risk assessor qualification which requires periodic education and retesting to maintain status.

WLCA is equipped to perform advanced decay detection tree risk analysis using an invasive Resistograph F300 drilling device, as well as mallet sounding and other techniques. WLCA maintains the ISA tree risk assessment qualification ("TRAQ") status in addition to the above-noted qualifications, so that tree risk assessment can be performed per international standards. WLCA performs level 1 "limited visual" tree risk assessments, level 2 ("basic") risk assessments, and level 3 "advanced" assessments using Resistograph drilling results to determine risk.

WLCA's weekdays are stratified into field and office days, with most field investigation work being performed for private and municipal clients on Mondays and Tuesdays, while the remainder of the work week is spent in the office preparing arborist reports. WLCA is still available on office days for on-call rush assignments such as, but not limited to, construction site monitoring emergencies involving root pruning or TRAQ tree risk assessment.

3. Qualifications & Experience*

Walter Levison, Consulting Arborist (owner, sole proprietor) will perform all work for the Town of Los Gatos.
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- ***See also the attached **Statement of Qualifications (SOQ) version 2022 on PDF page #77** for a formalized version of Walter Levison qualifications and experience.

- ***See also the attached **Municipal References version 2022 on PDF page #80**, which includes Mr. Joel Paulson, Town of Los Gatos Director of Planning and Community Development, who WLCA has been working under continuously since 2015 as the Town of Los Gatos contract planning division arborist.

City of Millbrae (2021-onward)

Since 2021, WLCA has acted as the unofficial City of Millbrae consulting arborist by providing on-call as-needed services to Parks Department, specifically focusing on TRAQ risk rating determinations for large eucalyptus and other large canopy type tree specimens on both private and public properties.

In 2021 alone, WLCA produced three large scale type arborist reports detailing TRAQ risk ratings for over 200 eucalyptus specimens on Parks Department controlled lands.

Millbrae skate park spur trail area trees were rated for TRAQ risk, with very specific target identification by WLCA, so that the City Parks Department could prioritize limited budget money for risk-reduction pruning and risk reduction tree removal (white gum eucalyptus specimens), identifying trees that threatened the highest occupancy targets and highest value type targets, including nearby high voltage electrical wires, residential homes, a high use skate park, a high school track and field facility with sports bleachers, and a high-use trail used by joggers, dog walkers, and other pedestrians.

Lomita spur trail area trees (blue gum eucalyptus) were assessed to determine TRAQ risk ratings to help the City identify how best to use limited tree removal budget to reduce risk of tree and tree part failure and impact with nearby residences, and reduce risk of wildland/urban interface fire from reaching those properties through a reduction in the number of large-canopy type eucalyptus forest trees.

Town of Los Gatos (2015-onward)

WLCA has prepared a large number of arborist reports to Town of Los Gatos Planning Division Staff over the last 7 years, including residential site reports, commercial site reports, and non-standard type reports involving roadway construction in the Town's hill areas.

Hill Area Roadways

Roadway construction required per the Fire Marshall was mandated on one site where an older roadway was to be significantly widened to allow for modern fire trucks to access the remote location. This work would have resulted in severe damage or total root plate destruction on one or more sides of mature oak specimens being retained along the roadway. Staff and WLCA worked together to reach a compromise solution whereby the roadway would be widened to meet the Fire Marshall's required roadway width, while simultaneously allowing the oak specimens to be retained and protected in place (PIP) through use of curvilinear roadway forms that swung side to side in such a manner as to avoid the most important tree specimens, impacting only smaller tree specimens in poor condition. Construction offset distances were thus built into the plan such that proposed new deep cut road base work did not require removal of the large oak specimen trees being retained along the roadway.

Illegal Construction

In another instance, WLCA worked with Staff to assess illegal construction by an applicant. WLCA identified apparent impacts to trees from the applicant's illegal residential construction, and determined mitigation where appropriate, calculating that mitigation in terms of loss of appraised dollar value of the impacted tree specimens. The owner/applicant was required to mitigate damages to the trees through removal of some illegal work, and through payment of in-lieu fees to account for that loss of tree value caused directly by the illegal work.

City of Belmont (1999-2020) 21 Years

The City of Belmont, where WLCA presided as contract city arborist to the planning division for a 21 year period, was a steep hillside community very similar to residential properties within the Town of Los Gatos. WLCA assessed hundreds of development project tree impacts on properties with steep slope characteristics, some of which also exhibited urban/wildland interface fire safety issues. WLCA performed initial tree surveys on these properties, following up with plan checks, construction monitoring on a periodic basis, and issuing stop work orders and damage fees based on construction damage to the trees when applicable. The goal in Belmont was to work with the private site plan development teams on a friendly basis, allowing City- authorized work to proceed at a normal pace, while maintaining a professional Best Management Practices level of tree root zone protection adequate for long term native oak tree survival.

Various other departments within the City of Belmont government such as Public Works Department, City Attorney's Office, and Parks Department periodically contacted WLCA to prepare appraisals (dollar valuations) of illegal tree damages and tree removals (e.g. unauthorized view preservation pruning, vehicle impacts, removal of trees along the City right of way, etc.).

Urban/Wildland Interface Fire Issues

WLCA worked with Belmont Staff and with applicants' project teams to finalize landscape plans for urban/wildland interface areas of very high fire risk. Methodology included delineation of fire modification zones A, B, C, and D, whereby existing forest trees and shrubs would be pruned or removed to achieve certain fire resistance goals set forth

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by the California Department of Forestry (CDF), such as use of only fire resistive plant materials for new landscaping, vertical crown raising of existing tree canopies, and horizontal reduction of existing tree canopies to achieve 10 feet linear spacing between canopy edges.

Qualifications and Experience (Excerpted from WLCA 2022 Business Brochure):

Examples of Major Consulting Projects / Walter Levison, Consulting Arborist (WLCA)

- On-call Consulting Arborist, City of Millbrae, California.
  Unofficial Parks Department arborist for City of Millbrae since 2021. Prepared three (3) large scale TRAQ risk rating determination type reports for 200+ trees on undeveloped and developed park lands for Parks Dept in 2021, to reduce both risk of Urban/Wildland Interface fire and risk of physical tree impact damage to residential homes and their occupants.

- Contract Town Arborist, Town of Los Gatos, California. Planning arborist for Community Development Department continuously for 5 years, since 11/15.

- Contract City Arborist, City of Belmont, California.
  Planning arborist for Planning Dept, Parks Dept, Public Works Dept, and City Attorney's office continuously for 21 years, 1999 to 2020.

- San Francisco Public Utilities Commission (SFPUC).
  Contract Project Arborist, Bay Division Pipelines #3, 4, and 5. (Hetch Hetchy Water System Improvement Program). Tree database creation, high risk tree analysis, prescribe tree impact mitigation measures to preserve key oak specimens, root pruning, root preservation zone delineation. 2010 to 2015.

- City of Menlo Park, California.
  Street tree assessment of nearly 3,000 mature trees using innovative set of ten 'defects and hazards' parameters. Assign action priority ratings to trees to effectively manage tree risk. Prepare new street tree management plan for Staff. Acquire hard-to-find oak species for street tree replacement program.

- City of American Canyon, California.
  City-wide street tree and parks tree GPS survey and assessment with action priority rankings. Presented tree risk assessment seminar to Staff.

Relevant Experience

2015 – 2022 (7 years)	Contract Town Arborist, Town of Los Gatos (current as of date of writing) Community Development Department (Planning Division)
2010 – 2015 (5 years)	San Francisco Public Utilities Commission (SFPUC) Contract Project Arborist, Bay Division Pipe Lines 3, 4, & 5
2001 – 2006	Commissioner, City of Millbrae Community Preservation Commission (Tree Board)
1999 – 2020 (21 years)	Contract City Arborist, City of Belmont Community Development Department (Planning Division)
1999	Barrie D. Coate and Associates Associate consulting arborist
1999 – present (23 years)	Independent Consulting Arborist
7/98 – 11/98	Bartlett Tree Expert Co. IPM technician, arborist, and tree pruner

1996 – 1998	Western Environmental Consultants Consulting utility forester to PG & E
1995	U.S. Forest Service Biotechnician and hydrotechnician Tree surveys and watershed restoration
1994 - 1995	U.S. National Park Service Habitat restoration volunteer (Tennessee Valley Nursery, GGNRA)
1991 - 1993	U.S. Peace Corps, Chiangmai, Thailand Agroforestry extension/Soil and Water Conservation / Environmental education

Education

ASCA Arboricultural Consulting Academy Graduate, Class of 2000
B.A. Environmental Studies/Soil and Water Resources
University of California, Santa Cruz, 1990
UCSC Chancellor's Award, 1990

Licenses

Tree Risk Assessment Qualified (ISA TRAQ)
ASCA Registered Consulting Arborist #401
ISA Certified Arborist #WE-3172A

Publications (partial list)

"Kino: The unique and mysterious exudate of eucalyptus"
"Responsibly planning a tree preservation system: City of Belmont"
"Resistance of eucalyptus species to the red gum lerp psyllid in the Bay Area" 2001 *Pan-Pacific Entomologist* 77(4) (co-author)
"Rootball treatment for optimal tree growth" *Pacific Horticulture* 69(1) (Levison and Muffly)
"Case Study: Tree Preservation Using Tunneling Technology"
"Ronald McDonald House at Stanford Preserves Historic Wooded Roadway"

Professional Affiliations

Member, International Society of Arboriculture (ISA)
Member, Western Chapter, ISA
Registered Member, American Society of Consulting Arborists

Litigation

Current Litigation Against WLCA: None

Past Litigation Against WLCA: None

4. Organization

Walter Levison will be the sole arborist performing all services for the Town of Los Gatos, which eliminates quality control problems and ensures that tree measurement and tree condition assessment is accurate and precise, using only the most current protocols and standards.

WLCA may be available for short notice assignments (RUSH fees of the regular hourly rate X 2) will apply) if WLCA is provided with 24-hour notice during regular working hours. In some instances, same-day service may also be available, with RUSH fees.

24-hour turnaround project completion is possible for some jobs such as simplistic situations involving 1 to 5 trees. Other larger or more complex jobs may require 48 hours or more turnaround.

All arborist report work products will be sent via email in PDF format.

5. Project Approach

The following is WLCA's approach to municipal work when performing site plan tree assessment for planning department Staff, based on 21years of experience with City of Belmont hillside development projects, and 7 years of experience with Town of Los Gatos hillside development projects. Anticipated constraints, problems, and issues are noted in the linear outline:

a. Applicant submits plans to planning division, along with standard $2,000 arborist review fee (current fee as of 2022).

b. Planning Staff emails Town Consulting Arborist a written consulting agreement with the $2,000 fee limit for work, which consultant signs and returns to the planner.

c. Planner emails consultant a link to the applicant's digital set of plans in PDF format that have been submitted to Planning Division for review by Staff and by consultant.

   Plans typically include a topographic survey of existing site conditions, scaled site plan sheet, and scaled grading and drainage plan sheet, all with north arrows indicated. One or more of these sheets typically shows most tree mainstem base locations as a black "plot dot", for all trees measuring 4 inches diameter or greater at 4.5 feet above grade, which is the typical planner-standard level of review, and the Town of Los Gatos ordinance minimum diameter that is required for a woody plant specimen in the landscape to be considered a "regulated tree".

   In some cases a landscape plan sheet, irrigation plan sheet, and utility plan sheet are also included in the set of plans, along with other sheets not related to the tree impact analysis process.

d. Town Arborist (consultant) physically visits the site, tags each tree with a permanent aluminum numbered tag, archives a digital image of each tree, records all standard arboriculture data including notes on all foreseeable impacts based on current proposed set of project plans, and returns to office. Consultant prepares a written arborist report document with comprehensive analysis of the applicant's proposed plans, including a tree map markup showing suggested redesigns, fence alignments, soil protection buffers, trunk buffers, and/or other elements that optimize tree survival over the long term. The document contains an Excel format tree database with all standard tree data, a summary table detailing dollar valuation appraisals for each tree plus the required changes necessary to bring impacts down to "less than significant", and the number of required 24" box or 15 gallon size mitigation replacement tree plantings to meet the Town's "tree canopy replacement standard" (table 3-1 from the Town's current tree ordinance).

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Detailed tree specimen-specific recommendations for maintenance, protection, and design changes are also included at the end of the report, along with a digital images (photographs) section documenting the current pre-project site conditions for reference. The recommendations are based on scientific studies and industry-standard reference texts that include various arboriculture Best Management Practices (BMP). They are also based on WLCA's 23 years of full-time, professional experience with hillside development project tree assessment and management in the Bay Area.

Town Arborist emails the arborist report to planner as a standalone PDF, along with notes on any items that require additional attention. An unlocked Word document version of the report is also emailed to planner, so that planner can copy and paste information from the report into their Staff report.

e. **Issue1**: If a scaled grading and drainage plan sheet and/or a landscape+irrigation plan sheet(s) is/are not present in the packet of plan sheets, Town Arborist asks planning Staff planner to request that the applicant's project team members generate a digital copy of that sheet in PDF format for Arborist review, so that the project's impacts to trees can more fully be assessed by the Arborist. Staff or the applicant project team can then email the sheet to Arborist as a PDF.

f. **Issue2**: If one or more site trees is not plotted on the sheet(s) in the packet, then Town Arborist hand-plots the tree(s) onto the sheet using Adobe Pro during the tree map markup phase of the arborist report preparation process.

g. **Issue3**: If one or more plan sheet does not contain a North arrow or a scale bar, then Town Arborist either requests that Town Staff planner obtain new sheet(s) from the applicant with these items added by the applicant's project team, or uses a compass and known key-off points in the field to determine scale and North azimuth.

h. **Issue4:** If there are any remaining items that are left unresolved in the applicant's proposed site plan, such as lack of a proposed storm drain line trench route on the grading and drainage plan, or lack of detail concerning a proposed retaining wall footing within the canopy dripline of a protected-size tree, then Town Arborist (consultant) emails planner associated with that project so that planner can note the issue as an item of "non-compliance" to be emailed to the applicant in a formal Staff planner comments or non-compliance letter. Town Arborist will then coordinate future plan check with the planner so that the item can be resolved prior to finalization of the project review by planner. Typically, the applicant's project team will revise the sheet(s) to add the missing information during consultant's review of the project plan set, allowing the arborist report to incorporate the missing information as part of his work product submitted to the Town Staff planner.

i. **Issue5:** If there does not appear to be any way to relocate a proposed construction element of applicant's plans that will cause or is expected to cause a significant negative impact near a protected-size tree (e.g. a residence foundation footprint limit of excavation that encroaches far into the canopy dripline of a 24" diameter coast live oak specimen in good condition on a narrow lot), then the Town Arborist, after discussion with Staff planner, may recommend in his arborist report that a pre-construction tree protection bond be posted by the applicant with the Town, in the amount of the full appraised value of the tree (or another dollar amount to be determined by tree species, diameter, etc.).

Town Inspector Staff can later determine, prior to the built-out project "final occupancy signoff" by Staff, if the entire bond amount, or a portion of the bond, should be retained by the Town, based on the subject tree's above-ground and below-ground health and structural condition after all site work including landscaping and irrigation line trenching is complete. The final occupancy signoff signature by Town Inspector Staffpersons can be withheld until such time as the project applicant deposits the appropriate tree damage mitigation fee with the Town. Town can then use this fee for Parks Department tree maintenance and planting activities at their discretion.

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6. Public Meetings + Informal Agreements + Rate Sheet

Public Meetings

Public meeting attendance will be billed hourly at the regular $200/hour rate* for all time, portal to portal, with a minimum 4 hour charge per meeting (4 X $200/hr = $800.).

Peer review studies and special studies will be billed hourly at the regular rate of $200/hour for all time, portal to portal.

Development proposal tree assessment will be determined by the number of trees on site, and will be billed hourly for all time, portal to portal.

WLCA & Town Staff Informal Agreements

Per WLCA's position as the Town of Los Gatos Town consulting arborist (planning division) continuously between 2015 and 2022 (present), Town Planning Division Staff and WLCA informally agreed that:

- WLCA will prepare "single family residential site" type arborist reports not to exceed the standard $2,000 arborist review fee collected by Town Planning Staff from applicants, for sites with between approximately 1 and 20 trees on a single lot.

- WLCA will request additional funds "to be determined", for single family residential lot projects with greater than approximately 20 trees on a single lot. Typical lump sum amounts collected from applicants by Town Planning Staff between 2015 and 2022 for these "larger lot" situations with higher quantity of trees were in the $3,000 to $4,000 range.

- WLCA preparation of "commercial site" type arborist reports will be on an hourly basis at the regular hourly rate, and collected by Staff from the applicant as a lump sum amount determined by WLCA, based on his estimated time needed to complete the scope of work.

  Typical lump sum amounts collected by Town Planning Staff from applicants between 2015 and 2022 for commercial sites and "non-standard sites" were in the $3,000 to $4,000 range, with additional $1,000 or $2,000 lump sum amounts requested by Staff from the applicant for use by consulting arborist in cases where subsequent additional tree analysis was necessary (for example, when the applicant resubmitted a new revised set of plans two years after the original submittal set was received by Planning Division).

- WLCA will use the *Best Management Practices: Root Management* (2017) booklet definition of "Critical Root Zone" defined as 6 times the trunk diameter at 4.5 feet above grade, as one of the standards for determining below-ground construction-related impacts to trees, when analyzing applicant plan sheets.

- WLCA will include a "tree conservation suitability" (TCS) rating for each tree in his Town Arborist reports, using the protocols and criteria defined in *Best Management Practices: Managing Trees During Construction, 2nd edition* (2016) booklet.

It is WLCA's intention that the above informal working agreements between WLCA and Town Staff be continued and wrapped into the 2022 RFQ for Town of Los Gatos Consulting Arborist.

***See 2022 WLCA rate sheet below on page 10 of this RFQ**

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2022 Rate Sheet / Walter Levison, Consulting Arborist

Walter Levison
CONSULTING ARBORIST

ISA Qualified Tree Risk Assessor ASCA Registered Consulting Arborist #401 ISA Certified Arborist #WE-3172A

CONSULTING RATES
WALTER LEVISON, CONSULTING ARBORIST
Revised 1/1/2022

1.	**INITIAL CONTACT / ORAL CONSULTING MINIMUM 2 HOUR PER-CLIENT CHARGE** (COVERS UP TO 1 HOUR OF TRAVEL, AND 1 HOUR ON SITE.)	**$400 ($200/HR x 2)** **($200 min. charge for local Millbrae jobs)**
2.	**STANDARD CONSULTING SERVICES** (ALL FIELD, OFFICE, & DRIVING TIME, PORTAL TO PORTAL). HAZARD TREE ASSESSMENT, TREE INVENTORY, CONSTRUCTION MONITORING, SPECIES SELECTION, MONETARY VALUATION (APPRAISAL), ARBORIST REPORTS, TREE PROTECTION AND MANAGEMENT PLANS, ETC.	**$200/HR** **($600 min. charge per job per day)**
3.	**SPECIAL CONSULTING SERVICES** **RESISTOGRAPH:** ADVANCED DECAY DETECTION AND ANALYSIS USING A RESISTOGRAPH MICRODRILLING DEVICE WITH DIGITAL GRAPH OUTPUT.	**Regular consulting rate, plus "machine-use charge" of between $100 and $300 per day.**
4.	**RUSH CONSULTING SERVICES** TIME TO COMPLETION OF SMALLER JOB WRITTEN WORK PRODUCT IS TYPICALLY 24 TO 96 HOURS FROM DATE OF CONTRACT SIGNING.	**$400/HR**
5.	**MUNICIPAL CONSULTING SERVICES AS CITY ARBORIST OR TOWN ARBORIST** (CONTRACT CITY ARBORIST SERVICES, OR ON-GOING, AS-NEEDED BASIS) (ALL FIELD, OFFICE, & DRIVING TIME, PORTAL TO PORTAL).	**$200/HR** **($600 min. charge per job per day)** **EVENING MEETINGS:** **($800 min. charge per evening)**
6.	**SUBCONSULTING UNDER OTHER CONSULTING ARBORISTS**	**(Negotiable rates)**
7.	**LEGAL CONSULTING SERVICES** (SITE VISITS, REPORT PREPARATION, MEETINGS, DEPOSITIONS, ATTENDANCE OF MEDIATION HEARINGS, ETC. RELATED TO LEGAL SITUATIONS)	**$200 TO $400/HR** **(Depending on task)**

1 of 1

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7. Examples of Work

(See two (2) recent WLCA arborist report samples in PDF format attached to the end of this RFQ).

SAMPLE REPORT #1 ON PDF PAGE #12

SAMPLE REPORT #2 ON PDF PAGE #44

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Assessment of Seven (7) Regulated Site Trees for Mini ARB Submittal (>4.0 inches diameter at 4.5 feet above grade)

SAMPLE REPORT
#1 OF 2

3440 Hillview
Mini ARB Submittal - West Side of Building
Palo Alto, California

Prepared for:

[redacted]

Field Visit:

Walter Levison, Consulting Arborist (WLCA)

(2021-2022)

Report by WLCA

2/18/2022

Table of Contents

1.0 Summary & Summary Table

1a. TREES ASSESSED / TREE DISPOSITION:

WLCA assessed a total of 7 tree regulated-size (greater than 4.0" diameter at 4.5 feet above grade) specimens in a non-sequential tree tag range, using data collected during WLCA's survey of the site in 2021 and early 2022.

The total subset of trees assessed for the MINI ARB SUBMITTAL is:

Trees #28a, 29a, 30a, 31a, 110, 111, and #1677 (see attached tree map markup by WLCA for reference). Only trees #110 and #111 are proposed to be removed at this time, due to direct conflicts with proposed new concrete pad construction per plan sheet L6.01 dated 11/15/2021.

The following is a breakdown of how these trees are going to be handled in terms of maintenance, preservation or removal, and construction conflicts related to the proposed Mini Arb work shown on the tree map markup along the west sides of the existing 3440 Hillview building.

Author's Side Note on Jurisdiction:

3440 Hillview is a Stanford University lease land area, governed by Stanford, and not by City of Palo Alto, California municipal authorities. However, given that the area is within the vicinity of City jurisdiction (e.g. public roadways, etc.), the author decided to prepare this report using City of Palo Alto standards set forth by their municipal tree ordinance governing private trees, and per their Tree Technical Manual (TTM) which outlines specific tree mitigation and tree reporting requirements for projects occurring within their municipal area of influence. Therefore, the author includes information in this report including the TTM tree replacement table.

Two (2) trees #110 and #111 are proposed to be removed due to project conflicts.

TREE MITIGATION WILL BE ADDRESSED IN THE FORM OF IN-LIEU FEE PAYMENTS AND/OR TREE CANOPY REPLACEMENT PLANTINGS ON-SITE, PER THE UPCOMING 2022 HILLVIEW ENHANCEMENT MASTER PLAN (HEMP). THEREFORE, MITIGATION FOR TREE REMOVALS SHOULD NOT BE REQUIRED AT THIS TIME, GIVEN THAT THE TREE REMOVAL AND REPLACEMENT TOTALS ARE ALREADY ACCOUNTED FOR IN THE OVERARCHING "HEMP" DOCUMENTS BEING DEVELOPED BY THE PROJECT TEAM.

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SUMMARY TABLE 1.0 / MINI ARB 3440 HILLVIEW (WEST SIDE)

Tree Tag Number	WLCA Assessment	Removal Per Plan?	Protect-In-Place (PIP)? Maintenance Required?	Tree Preservation Rating (TPR) per WLCA[1]
28a	Aleppo pine (*Pinus halepensis*) in fair overall condition, adjacent to project limit of work. Lower TRAQ risk rating. Can be retained for now.	No.	PIP. Fencing and TB (trunk buffer) wraps. Use trunk buffer wrap and chain link "Tree Protection Zone" (TPZ) fencing to protect above ground and below ground portions of tree.	6
29a	Aleppo pine (*Pinus halepensis*) in fair overall condition rating. Located up slope on very steep hillside, above and offset from proposed project work. No trunk buffer protection needed. Fence used for #28a will protect this tree. TRAQ risk rating is "moderate" for tree codominant mainstem failure at fork at 25 feet elevation above grade where a possible bark inclusion exists. Previous failures of this type occurred in October / November / December 2021 on one or more Aleppo pines at the south end of 3460 Hillview during extreme wind and rain events. Situation cannot be easily mitigated through pruning or other maintenance means. Tree is suggested to be removed.	No.	PIP for now. Fencing only. Tree recommended by WLCA to be removed in future due to structural issues noted at left which cannot be easily mitigated (subject to discussion with property manager/owner).	5
30a	Aleppo pine (*Pinus halepensis*) in fair overall condition rating. Tree far offset from proposed limit of work. Tree root crown was not visible during the assessment by WLCA, and therefore status of root crown is not verified as of the date of writing. Tree is to be retained for now.	No.	PIP for now. Fencing only.	6

[1] REFER TO SECTION 5.0 OF REPORT FOR CRITERIA USED

Tree Tag Number	WLCA Assessment	Removal Per Plan?	Protect-In-Place (PIP)? Maintenance Required?	Tree Preservation Rating (TPR) per WLCA[1]
31a	Coast redwood (*Sequoia sempervirens*) in very poor overall condition (10% out of 100% possible), making it almost a "dead" tree as of the date of writing. Trees in this stage of decline are typically recommended for removal. The tree is far enough offset from proposed work that there will be zero impacts related to site construction, and therefore the tree is to be retained for now, protected in place (PIP), and likely removed in the near future per WLCA's recommendation. NOTE: This tree is below the threshold for consideration as a protected City of Palo Alto private site "ordinance tree". It is not an ordinance tree.	No.	PIP for now. Fencing only. Tree recommended by WLCA to be removed in near future due to very poor overall condition and likely continued decline/death due to soil moisture deficit and continued droughty weather conditions. Tree is a high water-need species.	1
110	London plane (*Platanus x acerifolia*) specimen in fair overall condition. This is not a 'Columbia' specimen, and is therefore a good removal candidate, given its susceptibility to powdery mildew fungus and sycamore anthracnose fungus infection.	Yes. Removal per plan.	Remove per plan. Tree conflicts directly with proposed concrete pad construction. Tree already recommended to be removed per WLCA tree database.	4
111	Aleppo pine (*Pinus halepensis*) in poor overall condition, with a TRAQ risk rating of "moderate" for stem failure and impact with pedestrians and cars due to a large scaffold limb at 28 feet which is similar in size to the mainstem. The tree was noted by WLCA in the tree database to be retainable only if the scaffold limb were to be removed at its attachment point at the fork at 28 feet, thereby reducing the TRAQ risk rating to "low". The tree is to be removed due to direct conflict with the proposed concrete pad construction per plan sheet L6.01.	Yes. Removal per plan.	Remove per plan. Tree conflicts directly with proposed concrete pad construction. Tree was recommended for mandatory maintenance to remove a large diameter scaffold limb at 28 feet to reduce risk of tree part failure to "low", per WLCA tree database.	5

Tree Tag Number	WLCA Assessment	Removal Per Plan?	Protect-In-Place (PIP)? Maintenance Required?	Tree Preservation Rating (TPR) per WLCA[1]
1677	European birch (*Betula pendula*) in poor overall condition with a WLCA tree preservation rating (TPR) index of "3" out of a possible "10", due to drought stress (soil moisture deficit) issues related to this species' dependency on year-round heavy irrigation. Tree recommended by WLCA to be removed. However, for the purposes of this report, the tree will be retained and protected in place (PIP) during this initial proposed site work involving construction of an elongated rectangular concrete patio pad.	No.	PIP for now. Fencing (TPZ chain link). Trunk buffer wraps (TB). Water: Maintain irrigation to turf and all landscaping at current rate. If system is shut off or severed, use hand-watering during construction period, for the area inside the fenced off TPZ perimeter. WLCA suggests removal of tree for long-term reduction of water needs. Replace with a tree species or multiple species that is/are extremely drought resistant and can thrive in our Northern California dry summer type atmospheric and soil moisture regime.	3

2.0 Assignment & Background

Field Survey

Walter Levison, Consulting Arborist (WLCA) was directed to tag, map, partially photograph, and visually assess trees noted as dark black tree plot dots on a survey sheet provided to Consultant by the landscape architect of record for the 3440 Hillview Mini ARB (West Side of Building). WLCA collected standard arboriculture data for trees measuring 4.0 inches or greater at 4.5 feet above grade elevation, in 2021 and late 2022 during an overarching all Hillview sites survey, and culled data from that tree survey database for use in this report. Only trees with tree protection zone areas (10 x diameter offsets) within 30 feet of the proposed site work limit line were included in this study. Trees were tagged with numeric tags by WLCA and by others, so the numeric tree tag runs are tag shapes are discontinuous, with either round shaped or racetrack shaped tag affixed to the tree mainstems at eye level.

Risk Rating Determination and WLCA Tree Preservation Rating Determination

WLCA did determine International Society of Arboriculture "TRAQ" risk ratings for some of the trees in the all-sites tree survey used for this assignment. These ratings are a good indication of actual day to day risk of whole tree and/or tree part failure and impact with specified ground-based targets. The ratings are noted in the right hand section of the attached Excel tree data tables, and are valid for 12 months from the date of WLCA's survey.

In cases where trees are in fair or good overall condition, the trees can sometimes be maintained through use of arborist cabling systems, through-bolt brace rod systems, and endweight reduction pruning, to reduce the "residual risk" down to a "low" TRAQ risk rating, which is then considered reasonable in terms of a normal, background risk rating that can be tolerated by land managers moving forward. However, when trees are already rated in very poor or dead condition, as are many of the trees at this site, it is often impossible to use tree maintenance (cables, bracing, or pruning) to reduce risk ratings below a "moderate" or "high" rating. In those instances, removal of the tree is possibly the only reasonable tree management solution to maintain tree part failure-related risk at a "Low" level.

WLCA also determined tree preservation ratings (TPR) based on his own system that rates trees from 1 to 10 using criteria that are not related to proposed development. These ratings are also noted at the color-coded righthand cell of the tree data spreadsheet rows excerpted for use in this report.

Most or all of the seven (7) trees included in this report are considered of lower value in terms of their expected safe and useful lifespan in the landscape, otherwise known as "SULE". They are species that exhibit one or more of pest and disease susceptibility, drought intolerance, and/or poor structure or health.

Future plantings at the Hillview sites should consider use only of tree species and cultivars that are known to exhibit high tolerance of pests, diseases, and drought, and have genetically-controlled high limb and mainstem wood strength with angles of branch attachment that are moderately upright at angles that encourage long-term tree strength without serious pruning needs or included-bark type failures. Such trees are currently being developed by Ted Teuschler, lead horticulturalist at **Devil Mountain Nursery** (nearest location in Sunol, CA, plus other sites).

Tree Data

Tree diameters were determined using a forester's D-tape which converts circumference to an averaged diameter in inches and tenths of inches.

Tree heights were determined using digital Nikon forestry pro 550 hypsometer.

Tree canopy spread was estimated by pacing.

Note again that only trees with at least one mainstem measuring 4.0 inches diameter at 4.5 feet above grade were included in this study, per direction by City of Palo Alto Urban Forestry Division, even though this site is not technically located in or otherwise under the jurisdiction of City of Palo Alto (it is a Stanford University lease land).

Tree Map

The tree map markup attached to this report was created using the parking plan sheet L6.01 dated 11/15/2021 by Studios Architecture and Surface Design, Inc. (SDI) of San Francisco, CA: the landscape architect of record. WLCA marked chain link tree protection fence routes onto this sheet using heavy red dashed lines. Numeric tree tag numbers are indicated using large font typed directly over the approximate trunk plot point of each tree. In some cases, the tree trunk plot dot locations are noted "approximately", using a heavy straight black line which ends at the approximate trunk plot point.

3.0 City of Palo Alto, CA / What Trees are Regulated by the City?

Designated Trees

On commercial sites, typically all trees with at least one (1) mainstem measuring 4.0 inches diameter at 4.5 feet above grade are considered to be “designated trees” that are protected per City tree ordinance, and require a removal permit prior to removing the tree in the landscape.

The **two (2) trees #110 and #111 to be removed per the current mini ARB submittal for 3440 Hillview (West side of building) may or may not be considered "designated trees”, given that this commercial site is not actually located inside City of Palo Alto, and is instead a Stanford University lease land.**

Ordinance-protected trees

Coast live oaks, California valley oaks are protected per ordinance at the 11.5” diameter threshold.

Coast redwoods are protected per ordinance at the 18” diameter threshold.

There are no ordinance-protected trees in this study of 7 site trees.

Street trees

Trees of all sizes located in the public (City) right of way are considered protected street trees.

There are no street trees in this study of 7 site trees.

Removal trees:

Below is a canopy replacement standard table 3-1 excerpted from the City of Palo Alto Tree Technical Manual (TTM). The replacement ratios in this table are based on canopy size, and assumedly only apply to City-regulated trees such as street trees and/or trees on private lands within the City’s jurisdiction.

Given that the 3440 Hillview site is actually a Stanford University-owned “lease land”, it is not actually within the City’s jurisdiction. Therefore these replacement rates may not actually apply to our project. Even if the trees at 3440 Hillview are commercial property “designated trees” measuring 4.0 inches diameter or larger, the fact remains that this property appears to be outside of the City’s jurisdictional area.

Mitigation (per City of Palo Alto Table 3-1 Replacement Standard):

Removal of **trees #110 and #111** from the site, using the City of Palo Alto guidelines in Table 3-1 above (which is not related to Stanford University guidelines), would require the following on-site replacement plantings to be installed with timer-activated high-flow irrigation bubblers:

Nine (9) 24" box or

Three (3) 36" box and two (2) 48" box size trees

(Species to be determined, placement to be determined).

TREE MITIGATION WILL BE ADDRESSED IN THE FORM OF IN-LIEU FEE PAYMENTS AND/OR TREE CANOPY REPLACEMENT PLANTINGS ON-SITE, PER THE UPCOMING 2022 HILLVIEW ENHANCEMENT MASTER PLAN (HEMP). THEREFORE, MITIGATION FOR TREE REMOVALS SHOULD NOT BE REQUIRED AT THIS TIME, GIVEN THAT THE TREE REMOVAL AND REPLACEMENT TOTALS ARE ALREADY ACCOUNTED FOR IN THE OVERARCHING "HEMP" DOCUMENTS BEING DEVELOPED BY THE PROJECT TEAM.

TABLE 3-1
Tree Canopy - Replacement Standard

COLUMN 1	COLUMN 2	COLUMN 3
Canopy of the Removed Tree (Avg. dist. across the canopy*)	Replacement Trees	Alternative Tree
4'-9'	Two 24" Box Size (minimum)	One 36" Box Size
10'-27'	Three 24" Box Size	Two 36" Box Size
28'-40'	Four 24" Box Size	Two 48" Box Size
40'-56'	Six 24" Box Size	Two 48" Box & Two 36" Box Size
56'-60'	Two 24" Box & Two 36" Box + Two 48" Box Size	**
60'+	**	**

*Add half of the difference between the two to the narrowest measurement for the average canopy.
** Replace the tree with a combination of both Tree Canopy and Tree Value Standards.

Note: Basis of this table is determined by the growth of one 24" box size tree, growing at a rate equivalent to 9 feet of canopy over the course of ten years.

4.0 ISA TRAQ Risk Rating Determinations

The most recent international society of arboriculture (ISA) risk rating framework in use by arborists is the so-called "TRAQ" (tree risk assessment qualified) system which involves qualitative determinations by an arborist to assess:

- The tree part most likely to fail (which could be the whole tree)
- A time frame after which the arborist's determined risk rating is considered voided (a period of 1 year from date of writing is used by WLCA for his TRAQ ratings).
- Likelihood of tree or tree part failure based on a four-tier scale as seen at right.
- Likelihood of that tree or tree part impacting a defined target based on a four-tier scale as seen at right.
- Consequences of the failed tree or tree part on the specifically-defined target, based on a four-tier scale (see "semi-defined target" list below. Formalized targets were not determined for every single tree's TRAQ risk rating).

Although the TRAQ tree risk assessor's manual published by ISA does require that the risk assessor define each and every target for each risk rating determined, WLCA did not define the target for every single tree for which TRAQ risk ratings were determined. This is because the TRAQ risk ratings in this arborist report were simply included as "additional site analysis data points" for site managers who will be reviewing the landscape status of trees existing around various site buildings.

See the TRAQ risk rating field form reference at right, which was typed by WLCA using the most recent risk assessment manual information published by ISA to amalgamate the various tables contained in the manual.

WLCA determined TRAQ risk ratings for all seven (7) study trees for this mini ARB submittal. See the excerpted Excel tree database rows at the end of this report for TRAQ risk ratings of the seven study trees.

8 - TRAQ FIELD FORM / REVISED 2021 BASED ON 2017 TRAQ MANUAL

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	**Low**	**Medium**	**High**
Imminent	Unlikely	Somewhat Likely	Likely	Very Likely
Probable	Unlikely	Unlikely	Somewhat Likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat Likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Improbable: The tree or tree part is not likely to fail during normal weather conditions, and may not fail in extreme weather conditions within the specified time frame.

Possible: Failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions within the specified time frame.

Probable: Failure may be expected under normal weather conditions within the specified time frame.

Imminent: Failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. This is an infrequent occurrence for a tree risk assessor to encounter, and may require immediate action to protect people from harm. The imminent category overrides the stated time frame.

Very Low: Remote chance that failure will impact target. Rarely used site fully exposed; occassionally used site partially protected. E.g. A rarely used trail or trailhead in a rural area, or an occassionally used area that has some protection due to other trees between the failure and the target.

Low: Not likely that failure will impact target (slight chance). Occassionally used area fully exposed; frequently used area partially exposed; constant target well protected. E.g. A little-used service road next to the tree, or a frequently used street with a street tree between the assessed tree and the street.

Medium: The failed tree or tree part could impact the target, but is not expected to do so. Frequently used area fully exposed on one side of tree; constantly occupied area partially protected. E.g. A suburban street next to street tree, or a house partially protected by an intermediate tree.

High: Likely that the failure will contact the target. A fixed target is fully exposed. E.g. Near a high-use road or walkway with an adjacent street tree.

Likelihood of Failure and Impact	Consequences			
	Negligible	**Minor**	**Significant**	**Severe**
Very Likely	Low	Moderate	High	Extreme
Likely	Low	Low	Moderate	High
Somewhat Likely	Low	Low	Low	Moderate
Unlikely	Low	Low	Low	Low

Negligible: low value damage or disruption, no personal injury.
Minor: low to moderate damage, small disruptions to traffic or communication lines, or very minor personal injury.
Significant: moderate to high value damage, considerable disruption, or personal injury.
Severe: high value damage, major disruption, severe personal injury or death.

5.0 WLCA Tree Preservation Rating (TPR) System

WLCA Tree Preservation Rating (TPR) System (1=Worst, 10=Best)

The following system was used by WLCA to determine tree preservation ratings (TPR) for the seven (7) study trees at 3440 Hillview (west side of existing building). The rating numbers are noted in the righthand column of the attached Excel tree data table.

Criteria include vigor, structural stability, drought tolerance, root status, girth development, canopy form, long-term expected safe and useful lifespan under current climate conditions, and species' desirability in terms of pest and disease resistance, branch breakage strength, and species longevity.

It is important to note that the WLCA system is not based on the severity of any future proposed site work of any type, and assumes that any such work can be offset laterally to a degree that will avoid severe impacts to root systems and/or canopy live wood and foliage of tree specimens.

0: Tree is dead, with an overall condition rating of between 0% and 5%, out of 100% possible.

1-2: Expect tree death within 1 to 3 years

3-6: Tree can be retained, but may exhibit unmitigable issues such drought intolerance, severe structural problems, poor live twig density and/or poor twig extension, etc.

7-10: Reasonably-long expected survivability in terms of vigor and structural stability. Good candidate for retention in the landscape, assuming any proposed new site work can be adjusted to avoid “severe” degree of root pruning and “severe” degree of canopy pruning (i.e. avoid significantly disrupting water uptake function by roots, and photosynthesis by the live canopy).

6.0 Tree Protection and Maintenance Recommendations

6.1 PROJECT ARBORIST:

A project arborist (PA) will be retained by the project team, and will be present on at least a once-monthly basis, and for special periods as defined or determined by Palo Alto City Staff (see "arborist inspection schedule) below, assuming project is to be governed by City of Palo Alto guidelines and not Stanford University guidelines.

Monthly inspection reports, if required by City of Palo Alto, shall be submitted by the PA to City of Palo Alto Staff in electronic format.

Reports shall include information on tree conditions, tree protection status, and digital photos from the periodic site visit.

6.2 TREE PROTECTION:

Tree protection fencing shall be erected per the red dashed highlighted lines shown on the WLCA tree map markup attached to the end of this arborist report (alignments subject to change and field adjustment).

Tree fencing and trunk buffer wrap specifications are described below in this section 6.0.

Tree protection standards for City of Palo Alto projects are shown at right, excerpted from the most recent version of their "tree technical manual" (TTM).

6.3 ARBORIST INSPECTION SCHEDULE:

See the City ARBORIST INSPECTION SCHEDULE form on the following page of this arborist report. The actual inspection schedule is to be determined.

Typical project arborist scheduling is roughly 1x/month minimum, plus special inspections during grading, demolition, excavation, and trenching, when those activities encroach within a certain distance from protected trees (e.g. 10 x diameter as an offset radius from trunk edge, etc.).

IMAGE 2.15-1
Tree Protection Fence at the Dripline

IMAGE 2.15-2
Tree Protection Fence at the Dripline

notes:

• Type I Tree Protection
The fences shall enclose the entire area under the **canopy dripline or TPZ** of the tree(s) 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 (*see Images 2.15-1 and 2.15-2*). Parking Areas: If the fencing must be located on paving or sidewalk that will not be demolished, the posts may be supported by an appropriate grade level concrete base.

IMAGE 2.15-3
Tree Protection within a Planter Strip

• Type II Tree Protection
For trees situated within a **narrow planting strip**, only the planting strip shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.(*see Image 2.15-3*)

IMAGE 2.15-4
Trunk Wrap Protection

• Type III Tree Protection
Trees situated in a small tree well or **sidewalk planter pit**, shall be wrapped with 2-inches of orange plastic fencing as padding from the ground to the first branch with 2-inch thick wooden slats bound securely on the outside. During installation of the wood slats, caution shall be used to avoid damaging any bark or branches. Major scaffold limbs may also require plastic fencing as directed by the *City Arborist*. (*see Image 2.15-4*)

City of Palo Alto Tree Technical Manual 2-3 Protection of Trees During Construction **Section 2.00**

6.4 TRUNK BUFFER WRAPS:

The following trees are suggested to be wrapped with one entire roll of orange plastic snow fencing per each single tree, and overlaid with standing 2x4 wood boards duct taped to the plastic (see spec photo below), prior to start of any site work.

Trees requiring trunk buffers: Trees #1677 and #28a.

Table 2-2 Palo Alto Tree Technical Manual

ARBORIST INSPECTION SCHEDULE

All Checked Items Apply to this project:

1. ☑ **Inspection of Protective Tree Fencing**. The Street Tree Verification Form shall be signed by the City Arborist. For other Protected Trees, the project arborist shall provide a written statement with a photograph verifying that he has conducted a field inspection of the trees and that the protective tree fencing is in place prior to issuance of a demolition, grading, or building permit. (see Verification of Tree Protection, Section 1.39).

2. ☐ **Pre-Construction Meeting**. Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading equipment operators, project arborist, City Arborist, and, if a city maintained irrigation system exists, the Parks Manager (Contact 650-496-6962).

3. ☐ **Inspection of Rough Grading**. The project arborist shall perform an inspection during the course of rough grading adjacent to the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 48 hours advance notice of such activity.

4. ☐ **Monthly Inspections**. The project arborist shall perform a monthly activity inspection to monitor and advise for conditions and tree health. The City Arborist shall be in receipt of the activity report during the first week of each calendar month or, immediately if there are ***any revisions*** to the approved plans or protection measures. Fax to (650) 329-2154. (see Monthly Inspection Report, Section 1.17).

5. ☐ **Special activity within the Tree Protection Zone**. Work in this area (TPZ - described in #7 below) requires the direct onsite supervision of the project arborist (see Trenching, Excavation and Equipment, Section 2.20 C).

6. ☐ **Landscape Architect Inspection**. For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The City shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.

7. ☐ **Other** (please describe)_____

6.5 CHAIN LINK TREE PROTECTION FENCING (TPZ):

Erect chain link panels along the red dashed lines indicated on the WLCA tree map markup attached to the end of this report. Fence panels shall be affixed to steel rebar or layout stakes and wired together to prevent the panels being moved or removed during construction. Alternatively, moveable concrete fence panel footings such as those shown in the sample image at right can be used to keep the fencing set up in a formal manner. Note that steel rebar or other robust stakes will still need to be pounded into the ground at fencing corners to prevent the panels from being blown over or moved (see image at right).

Fencing: Per tree map markup in section 11.0 of this arborist report.

6.6 IRRIGATION (TURF LAWN):

Provide 3x/weekly heavy irrigation to tree #1677 via the existing active turf lawn irrigation already in place, throughout the entire site plan work period.

If for some reason this lawn irrigation is shut down or severed during construction work, then irrigate tree #1677 using manual means such as garden hoses or spray trucks.

Typical volume is roughly 50 to 100 gallons per tree per week.

OPTIONAL: Water delivery during construction often requires that straw wattles first be pinned down over the ground using wooden pins, to force irrigation water to actually percolate directly downward into the root zones of the trees without flooding the project area. See image below right.

6.7 TREE REMOVAL / MAINTENANCE (*MAINTENANCE IS OPTIONAL, IF TREE TAG NUMBERS NOTED ARE TO BE RETAINED*):

Item Description	Tree Tag Number	Total Count
Suggested Maintenance / Pruning as Noted Per ANSI A300 standards for tree care / woody plant maintenance / pruning.	n/a	-----
Suggested Maintenance / Limb and Branch Length Reduction Pruning To reduce over-extended limb lengths (this is the full list of trees throughout the site and on neighbor properties).	n/a	-----
Suggested Maintenance / Cabling and/or Through Bolt Brace Rod Installation Per the most current iteration of ANSI A300 tree support systems guidelines.	n/a	---
Suggested Maintenance / Root Crown Excavation (RCX) Use Small Hand Tools to Unbury the Flaring Buttress Roots at Base of Trunk.	**#30a**	1
Suggested Maintenance / Maintain Weekly Heavy Irrigation	**#1677**	1
Suggested Follow-up / Monitoring Monitor trees over the long term for declines in health (vigor) and/or structure.	n/a	---
Suggest Removal of Tree Due to Unmitigable Structure / TRAQ Risk And/or Very Poor Overall Condition Rating	**#29a, 31a**	2

6.8 TREE REMOVAL AND MITIGATION PLANTINGS:

6.8i: Trees expected to be removed due to proposed mini ARB site plan work conflicts**: #110, 111.**

6.8ii: Trees that will be considered for removal at a later date as part of the upcoming Hillview Enhancement Master Plan (HEMP), due to elevated risk ratings: **#29a.**

6.8iii: Trees that will be considered for removal at a later date as part of the upcoming Hillview Enhancement Master Plan (HEMP), due to very poor or poor overall condition ratings: **#31a.**

6.8iv: Mitigation required for trees if actually removed, per City of Palo Alto Tree Technical Manual (TTM), Table 3.1 "tree canopy - replacement standard" (see snippet at right taken from the City of Palo Alto official website in 2021):

- ***Tree #110**: Three (3) 24" box size trees, or two (2) 36" box size trees.
- ***Tree #111**: Six (6) 24" box size trees, or a combination of two (2) 36" box and two (2) 48" box size trees.

TABLE 3-1
Tree Canopy - Replacement Standard

COLUMN 1	COLUMN 2	COLUMN 3
Canopy of the Removed Tree (Avg. dist. across the canopy*)	Replacement Trees	Alternative Tree
4'-9'	Two 24" Box Size (minimum)	One 36" Box Size
10'-27'	Three 24" Box Size	Two 36" Box Size
28'-40'	Four 24" Box Size	Two 48" Box Size
40'-56'	Six 24" Box Size	Two 48" Box & Two 36" Box Size
56'-60'	Two 24" Box & Two 36" Box + Two 48" Box Size	**
60'+	**	**

*Add half of the difference between the two to the narrowest measurement for the average canopy.
** Replace the tree with a combination of both Tree Canopy and Tree Value Standards.

Note: Basis of this table is determined by the growth of one 24" box size tree, growing at a rate equivalent to 9 feet of canopy over the course of ten years.

6.8v: RISK RATINGS VS. REPLACEMENT REQUIREMENTS:

As noted in the 2021 mini ARB submittal report by WLCA for 3450 Hillview, it is not clear whether trees determined to have a TRAQ risk rating of "high" or "extreme" are required to be replaced at the same rate as a tree rated with a "low" or "moderate" TRAQ risk rating. Also, trees in dead condition (i.e. overall condition rating of "0% to 5% overall condition rating per 10th edition of Guide for Plant Appraisal are required to be mitigated at the rate noted in the tree canopy replacement standard, culled here from the City of Palo Alto Tree Technical Manual (TTM).

***TREE MITIGATION WILL BE ADDRESSED IN THE FORM OF IN-LIEU FEE PAYMENTS AND/OR TREE CANOPY REPLACEMENT PLANTINGS ON-SITE, PER THE UPCOMING 2022 HILLVIEW ENHANCEMENT MASTER PLAN (HEMP). THEREFORE, MITIGATION FOR TREE REMOVALS SHOULD NOT BE REQUIRED AT THIS TIME, GIVEN THAT THE TREE REMOVAL AND REPLACEMENT TOTALS ARE ALREADY ACCOUNTED FOR IN THE OVERARCHING "HEMP" DOCUMENTS BEING DEVELOPED BY THE PROJECT TEAM.**

Below is a sampling of standard project conditions of approval (COA) from City of Palo Alto[2], which may or may not apply to this plan submittal. Note that WLCA reformatted these condition statements and modified the wordage.

"TTM" refers to the City of Palo Alto "Tree Technical Manual" which guides the developer and consultant as to how to proceed with presentations of tree information, and how to build around trees with respect to the City codes that govern and restrict construction activity around private and public trees protected under City ordinances. The TTM is available on the official City website.

1. **TREE PROTECTION VERIFICATION**.

   Prior to demolition, grading or building permit issuance, a written verification from the contractor (via WLCA as the project arborist of record) that the required protective fencing is in place shall be submitted to the Building Inspections Division. The fencing shall contain required warning sign and remain in place until final inspection of the project.

2. **EXCAVATION RESTRICTIONS APPLY** (TTM, Sec. 2.20 C & D).
   Any approved grading, digging or trenching beneath a tree canopy shall be performed using 'air-spade' method as a preference, with manual hand shovel as a backup. For utility trenching, including sewer line, roots exposed with diameter of 1.5 inches and greater shall remain intact and not be damaged. If directional boring method is used to tunnel beneath roots, then Table 2-1, Trenching and Tunneling Distance, shall be printed on the final plans to be implemented by Contractor.

3. **TREE PROTECTION COMPLIANCE**.

   The owner and contractor shall implement all protection and inspection schedule measures, design recommendations and construction scheduling as stated in the TPR & Sheet T-1, and is subject to code compliance action pursuant to PAMC 8.10.080. The required protective fencing shall remain in place until final landscaping and inspection of the project.

   Project arborist approval must be obtained and documented in the monthly activity report sent to the City. The mandatory Contractor and Arborist Monthly Tree Activity Report shall be sent monthly to the City (pwps@cityofpaloalto.org) beginning with the initial verification approval, using the template in the Tree Technical Manual, Addendum 11.

   (WLCA shall perform the monthly monitoring and reporting to the City for this project.)

4. **TREE DAMAGE**.

   Tree Damage, Injury Mitigation and Inspections apply to Contractor. Reporting, injury mitigation measures and arborist inspection schedule (1-5) apply pursuant to TTM, Section 2.20-2.30. Contractor shall be responsible for the repair or replacement of any publicly owned or protected trees that are damaged during the course of construction, pursuant to Title 8 of the Palo Alto Municipal Code, and city Tree Technical Manual, Section 2.25.

[2] Provided by former planning division arborist Mr. Dave Dockter, City of Palo Alto, 2015.

(This applies to trees that are of protected size).

5. **GENERAL**.

The following general tree preservation measures apply to all trees to be retained: No storage of material, topsoil, vehicles or equipment shall be permitted within the tree enclosure area. The ground under and around the tree canopy area shall not be altered. Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

PRIOR TO FINAL USE OR OCCUPANCY

6. **PROJECT ARBORIST FINAL CERTIFICATION LETTER**.

Prior to written request for temporary or final occupancy, the contractor shall provide to the Planning Department and property owner a final inspection letter by the Project Arborist. The inspection shall evaluate the success or needs of Regulated tree protection, including new landscape trees, as indicated on the approved plans. The written acceptance of successful tree preservation shall include a photograph record and/or recommendations for the health, welfare, mitigation remedies for injuries (if any). The final report may be used to navigate any outstanding issues, concerns or security guarantee return process, when applicable.

POST CONSTRUCTION

7. **MAINTENANCE**.

All landscape and trees shall be maintained, watered, fertilized, and pruned according to Best Management Practices-Pruning (ANSI A300-2008 or current version) and the City Tree Technical Manual, Section 5.00. Any vegetation that dies shall be replaced or failed automatic irrigation repaired by the current property owner within 30 days of discovery.

7.0 Author's Qualifications (Partial)

- Continued education through The American Society of Consulting Arborists, The International Society of Arboriculture (Western Chapter), and various governmental and non-governmental entities.

- Contract Town Arborist, Town of Los Gatos, California
  Community Development Department / Planning Division
  2015-present

- Tree Risk Assessment Qualified (ISA TRAQ Course Graduate, Palo Alto, California)

- Millbrae Community Preservation Commission (Tree Board)
  2001-2006

- ASCA Registered Consulting Arborist #401

- ASCA Arboriculture Consulting Academy graduate, class of 2000

- Associate Consulting Arborist
  Barrie D. Coate and Associates
  4/99-8/99

- Contract City Arborist, City of Belmont, California
  Planning and Community Development Department
  1999-2020 (21 Continuous Years)

- ISA Certified Arborist #WE-3172A

- Peace Corps Soil and Water Conservation Extension Agent
  Chiangmai Province, Thailand 1991-1993

- B.A. Environmental Studies/Soil and Water Resources
  UC Santa Cruz, Santa Cruz, California 1990

  UCSC Chancellor's Award, 1990 (Environmental Studies Department)

- First-Ever Joint U.S.-China Ecological Study
  3 Months, Yunnan, China
  Studied Rainforest Ecology in the Field with Chinese and U.S.-Based Professors at Remote Xujiaba Nature Reserve, Yunnan, China
  Sponsor: Wildlands Studies, P.O. Box 2098, Aptos, CA 95001 USA

8.0 Assumptions and Limiting Conditions

Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised and evaluated as through free and clean, under responsible ownership and competent management.

It is assumed that any property is not in violation of any applicable codes, ordinance, statutes, or other government regulations.

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

Unless required by law otherwise, the possession of this report or a copy thereof does not imply right of publication or use for any other purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

Unless required by law otherwise, neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualifications.

This report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

Sketches, drawings, and photographs in this report, being intended for visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise. The reproduction of any information generated by engineers, architects, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by Walter Levison to the sufficiency or accuracy of said information.

Unless expressed otherwise:
a. information contained in this report covers only those items that were examined and reflects the conditions of those items at the time of inspection; and
b. the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Loss or alteration of any part of this report invalidates the entire report.

Arborist Disclosure Statement:

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. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Tree are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborist cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.
Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

9.0 Certification

I hereby certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Signature of Consultant

Walter Levison

CURRENT 2021 DIGITAL BADGES:

ISA CERTIFIED ARBORIST CREDENTIAL:
https://certificates.isa-arbor.com/f1918723-df46-48cc-ace2-c12625530fec?record_view=true

ISA TREE RISK ASSESSMENT QUALIFIED (TRAQ):
https://certificates.isa-arbor.com/d180515f-ab75-440b-9c66-106005e3cf10?record_view=true#gs.hpb30w

10.0 Digital Images

WLCA archived images of the study trees on 2/11/2022

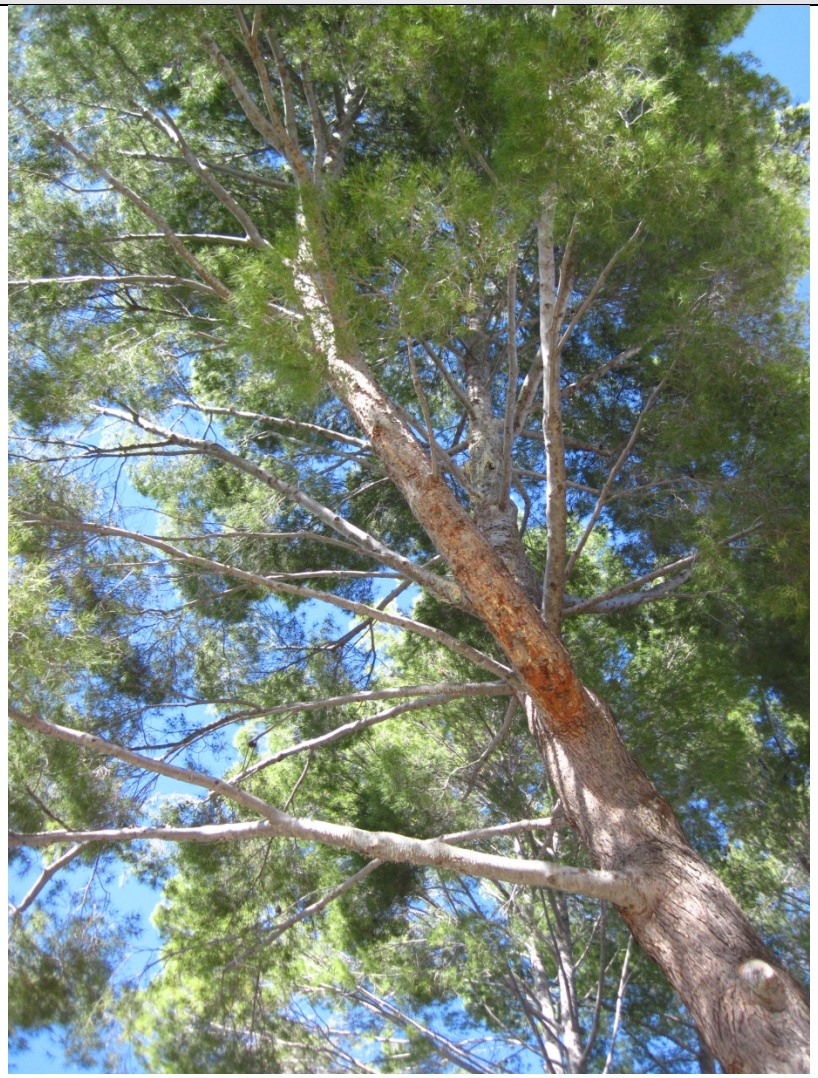
Tree #1677.
The new concrete pad construction will occur just left of (north of) this tree.

Tree #1677 profile.

	
Tree #110. London plane cultivar (not 'Columbia'). Tree 110 is to be removed due to direct conflict with proposed mini ARB concrete pad construction.	Aleppo pine #111 proposed to be removed due to direct conflict with the proposed mini ARB concrete pad construction. Tree leans significantly westward. Pitch canker sap flux noted at higher elevations (see additional images below on page 24 of report).

Tree #111 to be removed.

Extreme sap flux likely caused by pine pitch canker infection.



Tree #111 to be removed.

View of upper canopy elevations.

Aleppo pine #28a to be retained and protected in place for now (PIP) using trunk buffer wraps and fencing. Just north of the existing cooling unit, and north of the project limit of work.

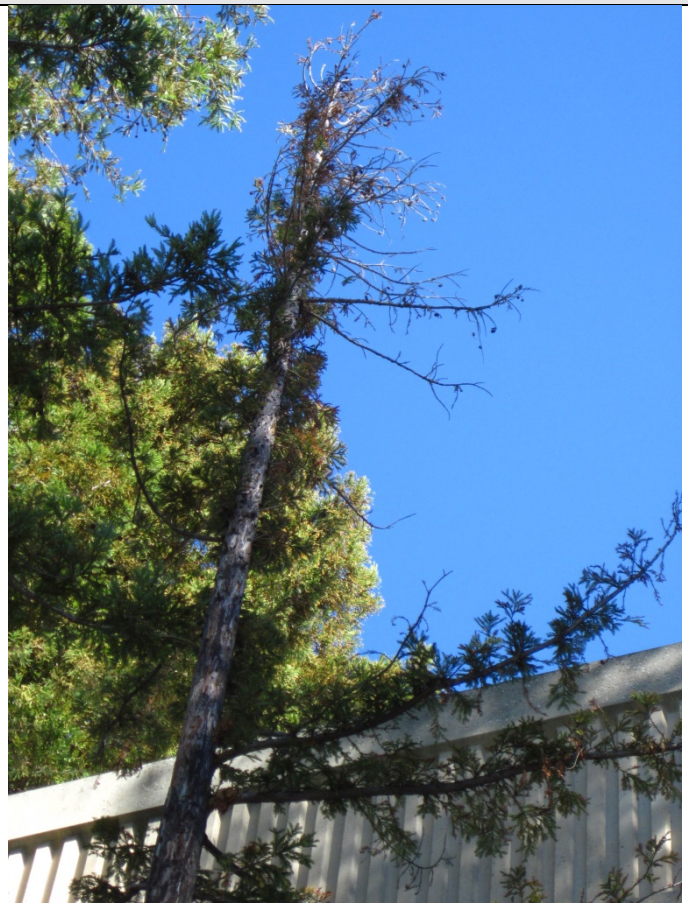
Aleppo pine #28a to be retained. Upper elevation view of canopy.

	
Aleppo pine #29a to be retained and protected in place (PIP) for now, using chain link fencing. The tree is significantly offset from proposed mini ARB work, and is proposed by WLCA to be removed in the future due to moderate TRAQ risk that is not able to be mitigated through maintenance means.	Aleppo pine #29a to be protected in place (PIP). Upper elevations.

Aleppo pine #30a to be protected in place (PIP) for now, using chain link TPZ fencing. Lower elevations. The uphill side of root crown (buttress root flare area) was buried in slumped soil, and not assessed by WLCA.

Aleppo pine #30a to be protected in place (PIP) for now, using chain link TPZ fencing. Upper elevations.

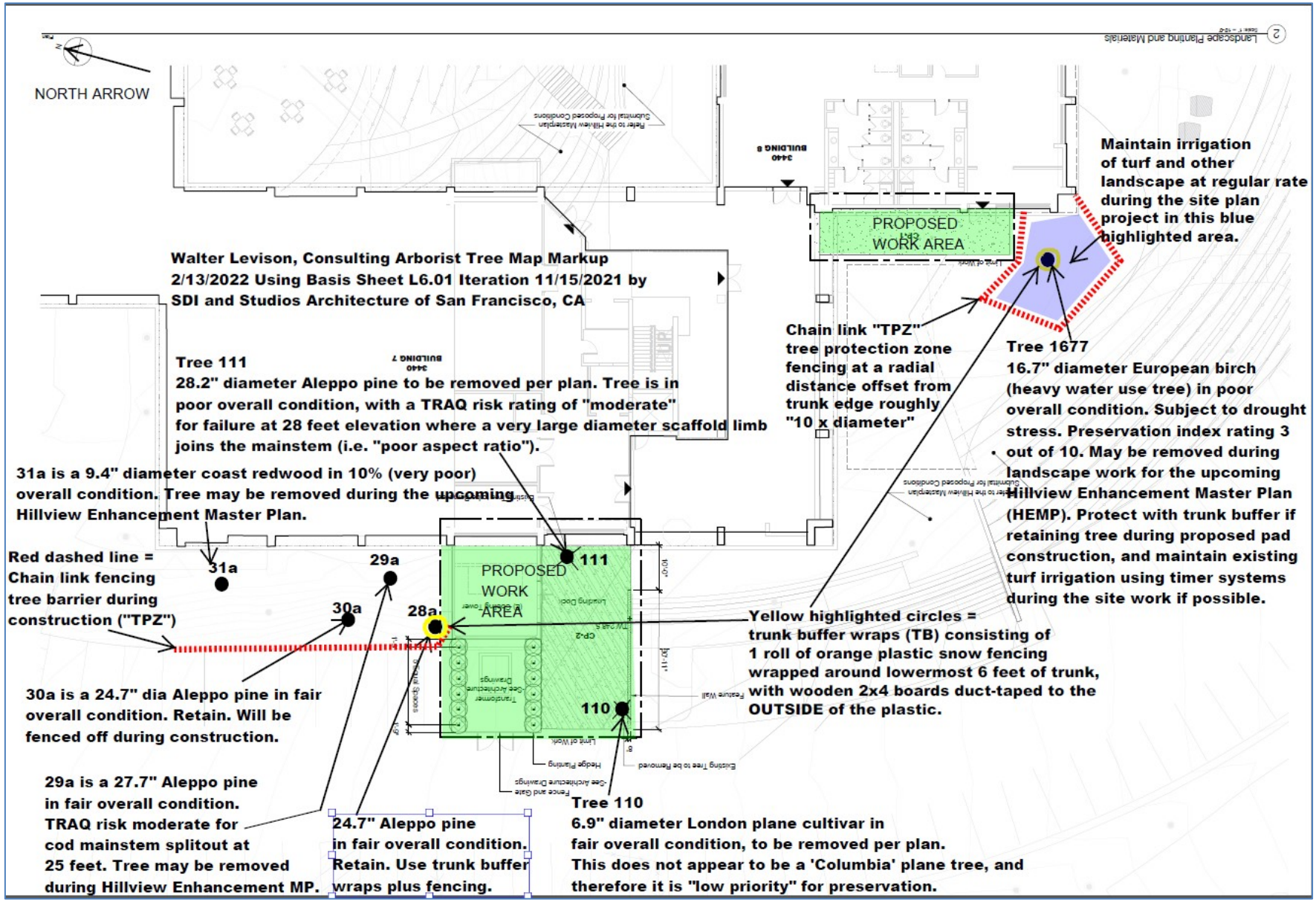
Coast redwood #31a to be protected in place (PIP) for now, using chain link fencing.
Recommended by WLCA to be removed in the near future due to very poor overall condition rating.



Close-up of upper canopy of coast redwood #31a to be protected in place (PIP) for now using chain link TPZ fencing.

Note severe decline of live twig and needle density caused by years of chronic drought stress (soil moisture deficit SMD). SMD can be reversed to some degree through heavy year-round irrigation using high flow type ½" diameter flood bubblers emitting hundreds of gallons of water per tree per month, but at this stage of tree canopy decline, it is expected that the tree cannot achieve an invigoration of the canopy with new twig and needle growth, and will instead continue to decline and die prematurely.

11.0 Tree Location Map Markup (WLCA) on SDI Plan Sheet



12.0 Arborist Certification Letter

Project Arborist Certification Letter

Prior to demolition, building, or grading permit issuance, the project arborist must sign this certification letter. By signing, the arborist certifies that the following terms have been met:

- ☐ Reviewed the entire building permit plan set submittal, and all updated Tree Protection Report (TPR) measures and changes are incorporated in the plan set.
- ☐ Affirms that the T-1 (Tree Protection- it's Part of the Plan!) is included in the plan set with the Tree Disclosure Statement complete/signed by the Property Owner or Agent.
- ☐ Reviewed the Urban Forestry Conditions of Approval, and required items (e.g. specific plan notes and standard drawings) have been included in all relevant permit sheets.
- ☐ Confirms that ongoing Contractor/Project Arborist site monitoring inspections and reporting have been arranged with the contractor or owner.
- ☐ If protected oaks, redwoods, or designated trees are located on or next to the property, an itemized list of any activity impacts has been quantified and mitigated in the Tree Protection Zone for each tree.
- ☐ Confirms that changes to plans before or during construction shall be reviewed by the project arborist and responded to with a written letter of acceptance before submitting the revision to the Building Department for review by Planning, Public Works, or Urban Forestry.

Project Address: 3440 HILLVIEW (WEST SIDE), PALO ALTO (MINI ARB SUBMITTAL)

I, Walter Levison, certify that the items listed have been addressed and are in accordance with City of Palo Alto standards and Building Permit stipulations.

Project Arborist Signature	Date	Certification Number
	2/13/2022	ISA-CA#WE-3172A ASCA-RCA#401

Palo Alto Tree Technical Manual: http://www.cityofpaloalto.org/civicax/filebank/documents/6436

Public Works Urban Forestry Operations Phone: (650) 496-5953

13.0 Attached: Tree Data Excerpted from WLCA Hillview Master Tree Database 2/5/2022

TREE DATA
3412 through 3460 Hillview, Palo Alto, CA
Survey Dates: 2021-2022
Excel Spreadsheet Preparation: 02-05-2022

ALL SITES TREE DATA UPDATED 2022

Removal Suggested by Author	Location (Hillview Address)	Tree Tag #	Trunk 1 (in.)	Trunk 2 (in.)	Trunk 3 (in.)	Adjusted Trunk Diameter (ATD) Inches @ 54" A.G. (ATD May Represent 5 or 6 Total Stems)	Protected Status as "designated trees" in City of Palo Alto. Assume all commercial property trees 4 inches diameter and greater at 4.5 feet elevation are considered protected (verify with City Staff).	Common Name	Scientific Name (*Genus, species*)	Height and Canopy Spread (ft.)	Health & Structural Ratings (0-100% each)	Overall Condition Rating (0-100%)	Live Twig Extension & Live Foliar Density (Very Poor, Poor, Mod, Good, Exc.)	Lopsided Canopy (Direction Noted)	Trunk Lean (Direction Noted)	Historical Stem Splitout Evidence (Note Elevation)	Severely Pruned or Root Pruned in Past (topping, liontailing, shearing, etc.)	Buried Root Crown (BRC) or Girdling Roots (GR)	Twig, Branch, Limb, Mainstem, and/or Root Decay (Note Elevation for Specific Issues)	Codominant Mainstems with Severe Bark Inclusion(s) ("BI") (Note Height)	PEST/DISEASE SYMPTOMS & NOTES, SUCH AS CRUCIAL MITIGATIONS NECESSARIOUS TO REDUCE TREE PART FAILURE RISK INDICATED IN YELLOW HIGHLIGHT)	Soil Moisture Deficit	TRAQ RISK RATINGS Valid Feb 2022 to Feb 2023 (Low, Moderate, High, Extreme) Based on Current Version of TRAQ Risk Rating System. Assume failure mode "limbs to 4" diameter each", and target "pedestrian" unless otherwise noted. NOTE: NOT ALL TREES WERE RATED FOR RISK	**WLCA Tree Preservation Rating System TPRS (1=Worst, 10=Best)** Criteria include vigor, structural stability, drought tolerance, root status, girth development, canopy f expected safe and useful lifespan under current climate conditions, and species' desirability in terms disease resistance, branch breakage strength, and species longevity. The WLCA system is NOT base of proposed site work or severity of exising parking lot infrastructure damage by tree roots. 1-2: Expect tree death adn/or structural failure within 1 to 3 years (a zero ("0") rating would indicate " may simply be highly undesirable for long term landscape use, for various reasons. 3-6: Tree can be retained, but may exhibit symptoms of drought intolerance, severe structural proble density and/or poor twig extension, etc. 7-10: Reasonably-long expected survivability in terms of vigor and structural stability. Good candidat the landscape, if proposed site work can be adjusted to avoid severe root pruning and severe canop regular irrigation were to be provided to high percentage of root zone, some trees' TPRS ratings coul or +2 pts.
	3440	28a	24.7	0.0	0.0	24.7	X	Aleppo pine	*Pinus halepensis*	60/35	60/50	53% Fair	Mod	West	West (photo tropic). Lean sweeps up to vertical between 15 and 20 feet elevation						Fork at 4.5 feet elevation is normal and wide (saddle shaped).	Note that the compression tissue on the utility vault side of the root crown is probably "normal", caused by compression forces over time.		Low, for failure of scaffold limbs to 5" diameter each.	6
X	3440	29a	27.7	0.0	0.0	27.7	X	Aleppo pine	*Pinus halepensis*	60/45	65/35	43% Fair	Mod to Good							Note that the scaffold limb at 18 feet elevation above grade is >50% of the diameter of the mainstem, which means increased likelihood of failure at the attachment point.	Likely BI type mainstem fork at 25 feet elevation, which means entire tree is of elevated risk of splitout at this attachment point at 25 feet.	Note the flux visible on south side of root crown could be caused by bark beetle feeding activity, but the actual cause of flux is "unverified" as of the date of writing.		Moderate risk for splitout of a codominant mainstem fork at 25 feet. Discuss with ARE regarding possible removal of this tree, since it is impossible to mitigate risk to "Low" residual level.	5
	3440	30a	24.7	0.0	0.0	24.7	X	Aleppo pine	*Pinus halepensis*	60/28	50/50	50% Fair	Mod		West, photo tropic lean, but sweeps upright to vertical at height.	Yes. Apical stem at top of canopy appears to have blown out in a storm in past.						Note that the uphill side of the root crown was not visible during WLCA's field assessment, and therefore the status of the root crown cannot be verified as of the date of writing.		Low for failure of limbs or branches to 4" diameter each.	6
X	3440	31a	9.4	0.0	0.0	9.4	X	coast redwood	*Sequoia sempervirens*	30/6	10/10	10% Very Poor	Very Poor										X	Moderate for mainstem failure due to desiccation of wood tissue.	1
?	3440	110	6.9	0.0	0.0	6.9	X	London plane tree cultivar	*Platanus x acerifolia* (Cult.)	22/25	50/40	44% Fair	Mod but neg affected by powdery mildew fungus infection	North west	North west					Powdery mildew issues. May want to remove tree and in future use only the 'Columbia' cultivar of London plane tree for superior		Severe powdery mildew fungus infection, which means this tree is probably 'Bloodgood' cultivar.		Low for all failure modes.	4
?	3440	111	28.2	0.0	0.0	28.2	X	Aleppo pine	*Pinus halepensis*	70/50	55/30	35% Poor	Good		West					Although this is not a decay issue, there is an issue at 28 feet elevation where scaffold limb is >50% of the mainstem diameter, reducing stability of the limb.		Lower mainstem lean appears to be phototropic, with mainstem later righting to vertical orientation at 40 feet elevation. Appears the root plate may be limited in east portion due to building presence, which reduces		Moderate for 20" diameter scaffold limb failure at 28 feet elevation attachment point. By removing the entire limb or reducing the outermost portion of it, residual risk rating can be reduced to "Low".	5
	3440	1677	16.7	0.0	0.0	16.7	X	European white birch	*Betula pendula*	50/25	35/35	35% Poor	Poor				Tree has been partially topped in past.			X		Suggest consider removal of tree for long term landscape.	X	Risk rating low for all failure modes.	3

Walter Levison
CONSULTING ARBORIST
ASCA Registered Consulting Arborist #401 / ISA Tree Risk Assessment Qualified / ISA Certified Arborist #WE-3172A
Cell: (415) 203-0990 / Email: walterslevisonjr@yahoo.com

Assessment of Twenty (20) Regulated Trees at and adjacent to 1220 Oakmead Parkway Sunnyvale, California

SAMPLE REPORT
#2 OF 2

Prepared for:

[redacted]

Field Visit:
Walter Levison, Consulting Arborist (WLCA)
10/12/2021

Report by WLCA
10/20/2021
Revised 2/7/2022

Table of Contents

1.0 Summary

1a. PROTECTION STATUS:

PROTECTED-SIZE: **Trees #51, 52, 53, 54, 55, 56, 57, 58, 69, 70** are considered protected-size specimens that will require a City tree removal permit prior to demolition of or removal of one or more of the trees.

NON-PROTECTED SIZE: **Trees #59, 60, 61, 62, 63, 64, 65, 66, 67, 68** are considered non-protected size trees that can be removed without a City tree removal permit.

NEIGHBOR TREES: Trees on neighbor properties are noted with a **box**, to denote those specimens that cannot be removed without authorization from the neighbor tree owner, which may be a private entity, or may be the City of Sunnyvale, even if the tree is considered to be of "non-protected size".

1b. TREE DISPOSITION:

REMOVALS:

Eighteen (18) off-site and on-site **trees #51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, and #68** are to be removed per plan, due to conflicts with proposed new site plan-related construction, including landscape renovation construction and planting.

Of these 18 trees expected to be removed, protected-size trees requiring a removal permit from the City of Sunnyvale are **eight (8) trees #51, 52, 53, 54, 55, 56, 57, and #58. Tree #51 is on City property (i.e. the City right-of-way).**

PROTECT-IN-PLACE (PIP):

Two (2) remaining off-site trees #69 and #70 will be protected in place (PIP) using orange plastic snow fencing as a lower trunk buffer wrap, and/or erection of chain link fencing as a protective barrier for lateral root system areas, "where possible" (TBD).

2.0 Assignment & Background

Walter Levison, Consulting Arborist (WLCA) was directed to tag and assess all trees of all trunk diameter size classes, located on and directly adjacent to the project location, which encompasses the entire lot known as 1220 Oakmead. As noted above in section 1.0, there are ten (10) tree specimens on neighbor properties, and ten (10) specimens on the subject property.

Most or all of the site trees appear to be required to be demolished, due to direct or indirect conflict with the proposed work, which includes multi-story garage construction, retaining wall footing excavation, and mass grading, including very extensive landscape renovation construction and planting. Trees #69 and #70 are assumed to be retained on neighbor lots.

All trees were tagged with aluminum numbered racetrack shaped tags "51" through "70": a total of 20 trees included in this initial tree study.

Trunk diameters were measured using a forester's D-tape, which converts actual circumference into an "averaged" diameter in inches and tenths of inches. Trees were measured by WLCA at 4.5 feet above grade: standard height used for most USA tree surveys.

Tree heights were measured using a digital Nikon forestry 550 pro hypsometer.
Tree canopy diameters were estimated visually.

The tree tag numbers typed on the WLCA tree map markups included in this arborist report are indicated directly over the approximate location of each tree, but are not considered totally accurate. The topographic survey shows the most accurate trunk plot dot locations, while the proposed site plan 1st floor sheet markup is considered the least accurate of the two maps prepared by WLCA.

As required for all City of Sunnyvale arborist report submittals, WLCA included tree data, an appraised dollar value, and at least one digital photograph of each of the 20 trees included in this tree study.

The tree map markups were plotted over an existing topographic survey sheet, and over proposed site plan sheet A2.0 which is the 1st floor level plan, iteration 9/1/2021 by Arris.

WLCA also prepared a follow-up reference tree map markup on 2/7/2022 using site plan sheet C1 iteration 1/25/2022.

Digital images of the trees were archived by WLCA during the 10/12/2021 field assessment.

3.0 City of Sunnyvale, California – What Trees are Protected?

Per the City's official website, the following trees are protected on private lots:

"Some private trees are protected and require a permit to be removed. To determine if a tree is protected, measure its circumference from 4 1/2 feet above ground:

- If a single-trunk tree measures 38 inches or greater, it is protected
- If a multi-trunk tree has at least one trunk that measures 38 inches or greater, or the measurements of the multi-trunks added together equal at least 113 inches, it is protected."

The above-noted circumferences where converted to diameter by WLCA. The following are the standardized protection thresholds in diameter, which is the standard U.S. method of measurement for determining protection size:

- Single trunk trees measuring greater than or equal to **12.1 inches diameter** at 4.5 feet above grade.
- Multi-trunk trees with trunk diameters totaling greater than or equal to **36 inches diameter** at 4.5 feet above grade

Per the above information, **trees #51, 52, 53, 54, 55, 56, 57, and #58** are considered protected-size specimens that will require a City tree removal permit prior to demolition of the trees. Tree #51 is on the City right of way.

Note that **trees #69 and #70** are also protected-size trees, located on neighbor properties just west of the project build envelope, that are proposed to be protected-in-place (PIP).

4.0 Recommendations

1. Project Arborist ("PA"):

   Initial Signoff

   It is recommended that a third party ASCA registered consulting arborist or ISA Certified Arborist with good experience with tree protection during construction be retained by the applicant, to provide pre-project verification that tree protection and maintenance measures outlined in this section of the arborist report are adhered to. Periodic (e.g. monthly) inspections and summary reporting, if required as a project condition of approval, are suggested in order to verify contractor compliance with tree protection throughout the site plan project. This person will be referred to as the project arborist ("PA"). The PA should monitor soil moisture within the root protection zones of trees being retained, using a Lincoln soil moisture probe/meter or equivalent.

   If required, inspection reports shall be sent to City of Sunnyvale planning division Staff (to be determined).

2. Trunk Buffer Wrap Type III Protection:

   Prior to demolition commencement, install trunk buffers around all trees being retained on-site:

   Wrap **one (1) entire roll of orange plastic snow fencing around the trunk of each single on-site tree**, between grade and 6 to 8 feet above grade to create a padding of at least 1 to 2 inches thickness around each tree trunk. Stand 2x4 wood boards upright, side by side, around the entire circumference of the orange plastic wraps. Affix using duct tape (do not use wires or ropes). See spec image above right showing the wooden boards correctly mounted against one entire roll of orange snow fencing, such that the wood does not actually touch the trunk at all.

   Trees to be wrapped at this site: Neighbor trees #69 and #70.

   No storage, staging, work, or other activities will be allowed inside the RPZ except with PA monitoring.

3. Tree Removal Permit:

   No protected-size trees will be able to be removed prior to obtaining a valid City of Sunnyvale tree removal permit for **eight (8) trees #51, 52, 53, 54, 55, 56, 57, and #58** that are protected per City of Sunnyvale tree ordinance governing private trees (tree #51 is a City tree on the public right of way, but can probably be grouped with the seven additional trees that will be removed as part of the proposed site plan project).

4. Signage: The RPZ fencing shall have one sign affixed with UV-stabilized zip ties to the chain link at eye level for every 20 linear feet of fencing, minimum 8”X11” size each, plastic laminated or printed with waterproof ink on waterproof paper, with wordage that includes the Town Code section that refers to tree fence protection requirements (wordage can be adjusted):

TREE PROTECTION ZONE FENCE
ZONA DE PROTECCION PARA ARBOLES

-NO ENTRE SIN PERMISO-
-LLAME EL ARBOLISTA-

REMOVAL OF THIS FENCE IS SUBJECT TO PENALTY ACCORDING TO CITY OF SUNNYVALE CODE

PROJECT ARBORIST:
TELEFONO CELL: **EMAIL:**

5. Chain Link Fencing Type I and/or Type II Root Protection Zone (RPZ):

Prior to demolition commencement, erect chain link fencing panels set on moveable concrete block footings (see sample image below right). Wire the fence panels to iron layout stakes pounded 24 inches into the ground at the ends of each fence panel to keep the fence route stabilized and in its correct position. Do not wire the fence panels to the trunks of the trees. These panels are available commonly for rent or purchase.

Alternative Fencing / Tube Posts and Rolled Chain Link: Using a professional grade post bounder, pound 7-foot long 2-inch diameter iron tube posts 24-inches into the ground, at 6 to 10-foot spacing maximum on-center, and hang steel chain link fencing material minimum 5-feet height on the tube posts. These materials are available for purchase at many retail and wholesale construction supply houses such as Home Depot, Lowe's, Grainger's, White Cap, Harbor Freight, etc.

Pre-construction fence routes:

As far as possible from the trunk edges of trees #69 and #70 (actual distances are to be determined during an on-site pre-construction meeting. It is possible that only tree #70 will be able to be fenced, given the location of tree #69 on the joint property line).

This fencing must be erected prior to any heavy machinery traffic or construction material arrival on site.

The protective fencing must not be temporarily moved during construction. No materials, tools, excavated soil, liquids, substances, etc. are to be placed or dumped, even temporarily, inside the root protection zone or "RPZ".

No storage, staging, work, or other activities will be allowed inside the RPZ except with PA monitoring.

6. Irrigation Temporary with Straw Wattles (During Work Period):

Temporary supplemental irrigation water applications typically are performed to boost vigor and partially mitigate for the loss of roots during new construction. Also, irrigation water pipes are typically destroyed or at least shut off during construction, such that existing systems cannot be used during site work to provide any water to trees.

Temporary supplemental irrigation water can be applied via any method available, such as soaker hoses, garden hoses, water tank spray apparatus, etc.

- **Palm #69**: Pin down straw wattles to force irrigation water downward into the root system percolating vertically. See photo at right.

  Apply 50 to 75 gallons of water per week if possible, applied on a single day.

- **Magnolia #70**: Existing irrigation system(s) should be kept active and running year-round. The tree may not require supplemental irrigation via water tank truck, unless the existing turf lawn sprinkler system is for some reason inactive and not running during the site work period (construction team will need to verify this with the neighbor commercial property manager/owner).

  If the system is not running, supplemental irrigation applications should be roughly **75 to 100 gallons per week**, applied on a single day.

7. Root Pruning:

If roots greater than 1.0 inch diameter each are required to be pruned within 15 hoirizontal feet of trees #69 or #70, contact the project arborist to consult.

All root pruning cuts will need to be performed using a sawzall (reticulating saw) affixed with a green wood pruning blade specified for such purpose.

All root pruning cuts will need to be performed at a right angle (90 degrees) to the root growth direction, and the cut ends smeared with west mud to protect against desiccation.

Backfill ASAP, preferably within 24 hours. If the root pruning area cannot be backfilled within 24 hours, cover the roots with 3 layers of wet burlap sack material to protect against sunburn and desiccation (see images below and at right, showing burlap sun protection, correct blade type, and correct cut angle).

5.0 Author's Qualifications

- Continued education through The American Society of Consulting Arborists, The International Society of Arboriculture (Western Chapter), and various governmental and non-governmental entities.

- Contract Town Arborist, Town of Los Gatos, California
  Community Development Department / Planning Division
  2015-present

- Tree Risk Assessment Qualified (ISA TRAQ Course Graduate, Palo Alto, California)

- Millbrae Community Preservation Commission (Tree Board)
  2001-2006

- ASCA Registered Consulting Arborist #401

- ASCA Arboriculture Consulting Academy graduate, class of 2000

- Associate Consulting Arborist
  Barrie D. Coate and Associates
  4/99-8/99

- Contract City Arborist, City of Belmont, California
  Planning and Community Development Department
  5/99-5/20 (21 years)

- ISA Certified Arborist #WE-3172A

- Peace Corps Soil and Water Conservation Extension Agent
  Chiangmai Province, Thailand 1991-1993

- B.A. Environmental Studies/Soil and Water Resources
  UC Santa Cruz, Santa Cruz, California 1990

  UCSC Chancellor's Award, 1990

  (My full curriculum vitae is available upon request)

6.0 Assumptions and Limiting Conditions

Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised and evaluated as through free and clean, under responsible ownership and competent management.

It is assumed that any property is not in violation of any applicable codes, ordinance, statutes, or other government regulations.

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

Unless required by law otherwise, the possession of this report or a copy thereof does not imply right of publication or use for any other purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

Unless required by law otherwise, neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualifications.

This report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

Sketches, drawings, and photographs in this report, being intended for visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise. The reproduction of any information generated by engineers, architects, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by Walter Levison to the sufficiency or accuracy of said information.

Unless expressed otherwise:
a. information contained in this report covers only those items that were examined and reflects the conditions of those items at the time of inspection; and
b. the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Loss or alteration of any part of this report invalidates the entire report.

Arborist Disclosure Statement:

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. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Tree are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborist cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

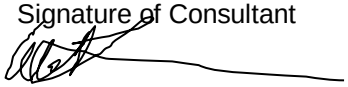
Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

7.0 Certification

I hereby certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Signature of Consultant



Walter Levison

DIGITAL BADGES:

ISA CERTIFIED ARBORIST CREDENTIAL:
https://certificates.isa-arbor.com/f1918723-df46-48cc-ace2-c12625530fec?record_view=true

ISA TREE RISK ASSESSMENT QUALIFIED (TRAQ):
https://certificates.isa-arbor.com/d180515f-ab75-440b-9c66-106005e3cf10?record_view=true#gs.hpb30w

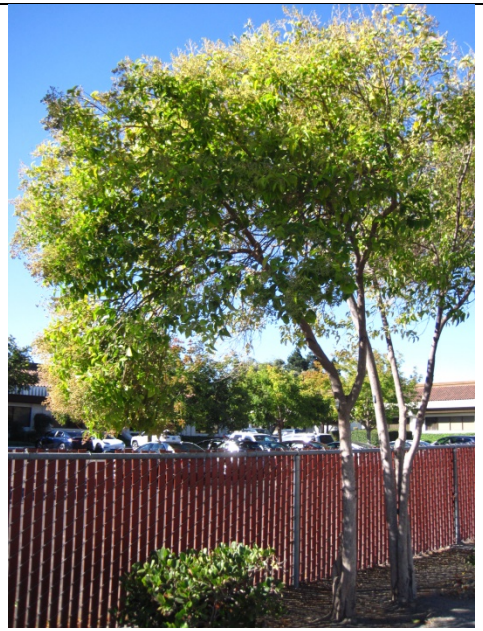
8.0 Digital Images

Below: Digital Images by WLCA, archived 10/12/2021, prior to start of construction.

Tag #	Image	Tag #	Image
51		52	

53		54	
55		56	

57		58	
59		60	

61		62	
63		64	

65		66	
67		68	

69		70	
69		70	

9.0 Tree Data Table

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
51	*Washingtonia robusta NEIGHBOR TREE*	Mexican fan palm	21.1	--	--	21.1	25/14	70/70	70% Good	X		Poor					This tree appears to be in a public right of way owned by City of Sunnyvale.	
52	*Magnolia grandiflora*	Southern magnolia	15.8	--	--	15.8	17/11	20/10	15% Very Poor	X		Poor					Root system damaged and sunburned on grade. Canopy consists of weakly-attached re-sprout growth that has arisen after excessive pruning was for some reason performed, resulting in the tree's original branch and limb architecture having been cut back to stubs (i.e. destroyed).	
53	*Magnolia grandiflora*	Southern magnolia	20.5	--	--	20.5	23/15	25/20	23% Poor	X		Poor					(Same notes as for tree #52 above)	
54	*Magnolia grandiflora*	Southern magnolia	28.3	--	--	28.3	20/15	25/10	17% Very Poor	X		Poor					(Same notes as for tree #52 above) Note also that roots are confined to a surface plate, with significant visible damage and sunburn desiccation noted.	

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
55	*Magnolia grandiflora*	Southern magnolia	21.5	--	--	21.5	16/11	15/10	13% Very Poor	X		Poor					(Same notes as for tree #52) Note that on this specimen, resprouting is only occurring on the north, south, and west sides of the remnant tree, but not on the east side.	
56	*Magnolia grandiflora*	Southern magnolia	20.8	--	--	20.8	17/13	25/10	17% Very Poor	X		Poor					(All same notes as for tree #52 above).	
57	*Pyrus kawakamii*	Evergreen pear (ornamental)	13.2	--	--	13.2	23/18	25/20	24% Poor	X		Poor					Trunk taper development good. Tree root system is confined inside a concrete curb bumpout. Shear pressure from trunk and root expansion is causing cracking of the existing curbwork. This tree was topped in the past, resulting in a profusion of new weakly-attached epicormics shoots as the new canopy. This species is susceptible to black spot and to bacterial fireblight.	

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
58	*Magnolia grandiflora*	Southern magnolia	15.3	--	--	15.3	16/13	25/10	17% Very Poor	X		Poor					Roots damaged on grade from years of turf mowing via machinery. Sunburn has damaged the upper surfaces of the woody roots. Tree was topped back to stubs (same as tree #52). It is not clear why this severe method of pruning was used, as it completely destroyed the aesthetics, structure, and long term viability of every magnolia specimen on site.	
59	*Ligustrum sp. NEIGHBOR TREE*	Privet species	11.3	--	--	11.3	25/17	30/25	27% Poor	X		Poor	South		GR on north side.		Tree's north side of canopy facing the parking lot was severely pruned back to clear the airspace of parking stalls.	
60	*Pyrus kawakamii*	Evergreen pear (ornamental)	11.7	--	--	11.7	20/25	50/30	37% Poor	X		Poor					Tree's north side of canopy facing the parking lot was severely pruned back to clear the airspace of parking stalls.	

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
61	*Ligustrum sp. NEIGHBOR TREE*	Privet species	3.7	--	--	3.7	13/8	20/15	17% Very Poor	X		Poor	South				Severely pruned to clear the parking lot airspace (north side of canopy). This tree is declining due to soil moisture deficit (drought stress). Note this tree may not technically be a "tree". Most planning staff don't consider trees <4" diameter as "trees". Contact staff to verify.	
62	*Ligustrum sp. NEIGHBOR TREE*	Privet species	3.4	3.3	2.5	9.2	15/13	15/15	15% Very Poor	X		Poor					Bark inclusion type fork (elevated risk of splitout) at 6 inches above grade. Decline of canopy noted, due to soil moisture deficit.	
63	*Ligustrum sp. NEIGHBOR TREE*	Privet species	11.4	--	--	11.4	25/20	15/15	15% Very Poor	X		Poor	South				Tree was severely pruned to remove the north side of canopy to clear parking lot.	
64	*Ligustrum sp. NEIGHBOR TREE*	Privet species	6	6	5	21 (four stems)	20/20	20/16	18% Very Poor	X		Poor	South				Bark inclusion at grade. Decline of canopy foliar density due to soil moisture deficit.	
65	*Ligustrum sp. NEIGHBOR TREE*	Privet species	4	3	3	10	18/12	20/10	15% Very Poor	X		Poor	South				Tree was severely pruned to remove north side of canopy (stems facing the subject lot parking lot). Decline of canopy due to soil moisture deficit.	

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
66	*Ligustrum sp.*	Privet species	9.2	--	--	9.2	20/18	30/20	25% Poor	X		Poor	South				Soil moisture deficit is causing canopy decline. Multiple 6" diameter pruning cut wounds were made to remove at least 50% of the original live biomass of this tree, which is considered severe pruning.	
67	*Pittosporum undulatum*	Victorian box	3	3	2	8	20/13	15/15	15% Very Poor	X		Poor					Advanced stage decay of twigs in canopy noted, likely due directly to soil moisture deficit (drought stress). Note however that there is a known issue called "Victorian box decline" that affects older (mature) specimens of this tree species, causing severe decline and/or death of the tree within a relatively short time frame. There is no cure or treatment for this decline syndrome.	

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
68	*Ligustrum sp.*	Privet species	8.4	--	--	8.4	22/18	40/25	29% Poor	X		Poor					Soil moisture deficit causing decline of canopy. The lowermost 50% of the canopy was removed by pruning, which has destroyed this tree's natural branch architecture (structure) permanently, raising its center of gravity to a higher elevation, and removing its ability to add sugars and starches to the lower mainstem area. As noted elsewhere, it is not clear as to why incredibly severe pruning was performed on many of the site trees in the first place, effectively destroying the safety of and value of most of the trees for the remainder of their lives in the landscape.	
69	*Washington robusta NEIGHBOR TREE*	Mexican fan palm	16.8	--	--	16.8	37/15	75/75	75% Good		X	Poor					Tree is actually on neighbor property. 27 feet of clear stem from base to frond initiation elevation. This is a tree species that performs well in the Bay Area with little maintenance.	Trunk buffer wrap and possibly chain link fencing barrier "where possible"

Tree Tag Number	Genus & Species	Common Name	Trunk1 Diameter	Trunk2 Diameter	Trunk3 Diameter	Sum of All Trunk Diameters	Height & Canopy Spread (Ft.)	Health & Structural Rating (100% Each)	Overall Condition Rating (0 to 100%)	(R)emove Tree	(S)ave Tree	Tree Conservation Suitability Ratings (TCS)	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Girdling Roots	Root Flares Buried in Fill Soil	Pests and Disease Presence, and Other Notes	MAINTENANCE AND PROTECTION
70	*Magnolia grandiflora NEIGHBOR TREE*	Southern magnolia	21.6	--	--	21.6	35/40	35/35	35% Poor		X	Poor					Located approximately 8 feet west of the property line on a neighbor site that has irrigated turf grass covering root zone. Roots are damaged on grade from both years of mechanical mowing, and from sunburn. Roots tend to grow on the surface of heavily compacted urban soils when they are irrigated frequently in a "shallow" manner. Extensive twig death noted in the upper 50% of the canopy, due likely to soil moisture deficit (drought), even though the tree appears to theoretically be well irrigated (the turf grass may be pulling most of the applied irrigation water before it reaches the tree's feeder root system).	Trunk buffer wrap, and install chain link fencing barrier at property line to protect root system.

Overall Tree Condition Ratings / Breakdown of Numeric Ranges (New, Per *Guide for Plant Appraisal, 10th Edition*):
00 - 05% = Dead
06 - 20% = Very Poor
21 – 40% = Poor
41 – 60% = Fair
61 – 80% = Good
81 – 100% = Exceptional

Tree Conservation Suitability (TCS) Ratings[1]

A tree's suitability for conservation is determined based on its health, structure, age, species and disturbance tolerances, proximity to proposed cutting and filling, proximity to proposed construction or demolition, and potential longevity, using a scale of good, fair, or poor (Fite, K, and Smiley, E. T., 2016). The following list defines the rating scale. Note that if proposed site work can be offset to farther linear distances from a tree's trunk edge, a tree's TCS rating may be elevated by one rating tier, given that there would be a corresponding reduction in expected future root zone impacts.

TPS Ratings	Range of values	
Good	**80-100**	Trees with good health, good structural stability and good expected longevity after construction.
Moderate	**60-79**	Trees with fair health and/or structural defects that may be mitigated through treatment. These trees require more intense management and monitoring, before, during, and after construction, and may have shorter life expectancy after development.
Poor	**<59**	Trees are expected to decline during or after construction regardless of management. The species or individual may possess characteristics that are incompatible or undesirable in landscape settings or unsuited for the intended use of the site.

TCS Ratings Worksheet Factors (Total Possible: 100 Points)

Health (1-15)
Root Cut/Fill Distance from Trunk (1-15)
Structure Defects (1-15)
Construction Tolerance of the tree species (1-15)
Age relative to typical species lifespan (1-10)
Location of construction activity (1-10)
Soil quality/characteristics (1-10)
Species desirability (1-10)

[1] Derived from Fite and Smiley, 2016. *Best Management Practices: Managing Trees During Construction, 2nd Edition.* International Society of Arboriculture.

Tree Maintenance and Protection Codes Used in Data Table:

RPZ: Root protection zone fence, chain link, with 2" diameter iron posts driven 24" into the ground, 6 to 8 feet on center max. spacing. Alternative material: chain link fence panels set over concrete block-type footings, with the fence panels wired to steel pins pounded 24 inches into the ground at both ends of each panel.

RB: Root buffer consisting of wood chip mulch lain over existing soil as a 12 inch thick layer, overlain with 1 inch or greater plywood strapped together with metal plates. This root buffer or soil buffer should be placed over the entire width of the construction corridor between tree trunks and construction.

RP: Root pruning. Prune woody roots measuring greater than or equal to 1 inch diameter by carefully back-digging into the soil around each root using small hand tools until an area is reached where the root is undamaged. Cleanly cut through the root at right angle to the root growth direction, using professional grade pruning equipment and/or a Sawzall with wood pruning blade. Backfill around the cut root immediately (same day), and thoroughly irrigate the area to saturate the uppermost 24 inches of the soil profile.

BDRP: Back-dig root pruning: Hand-dig around the broken root, digging horizontally into the open soil root zone until a clean, unbroken, unshattered section of the root is visible. Proceed as per 'root pruning'.

RCX: Root crown excavation. Retain an experienced ISA-Certified arborist to perform careful hand-digging using small trowels or other dull digging tools to uncover currently-buried buttress root flares. Digging shall occur between trunk edge and at least two (2) feet horizontal from trunk edge. The final soil elevation will be at a level such that the tree's buttress roots visibly flare out from the vertical trunk.

TB: Trunk buffer consists of 20-40 wraps of orange plastic snow fencing to create a 2 inch thick buffer over the lowest 8 feet of tree trunk (usually takes at least an entire roll of orange fencing per each tree). Lay 2X4 wood boards vertically, side by side, around the entire circumference of the trunk. Secure buffer using duct tape (not wires).

F: Fertilization with slow-release Greenbelt 22-14-14 tree formula, as a soil injection application using a fertilizer injection gun. This brand and formulation is commonly used by reputable tree care companies in the Bay Area. Apply at label rate and injection hole spacing.

M: 4-inch thick layer of chipper truck type natural wood chips (example source: Lyngso Garden Supply, self pick-up). Do not use bark chips or shredded redwood bark.

W: Irrigate using various methods to be determined through discussion with General Contractor. Irrigation frequency and duration to be determined through discussion and/or per directions in this report. Native oak species typically require 1x/month irrigation, while other tree species tend to prefer 2x/month or 4x/month moderate to heavy irrigation during construction.

P: Pruning per specifications noted elsewhere. All pruning must be performed only under direct site supervision of an ISA Certified Arborist, or performed directly by an ISA Certified Arborist, and shall conform to all current ANSI A300 standards.

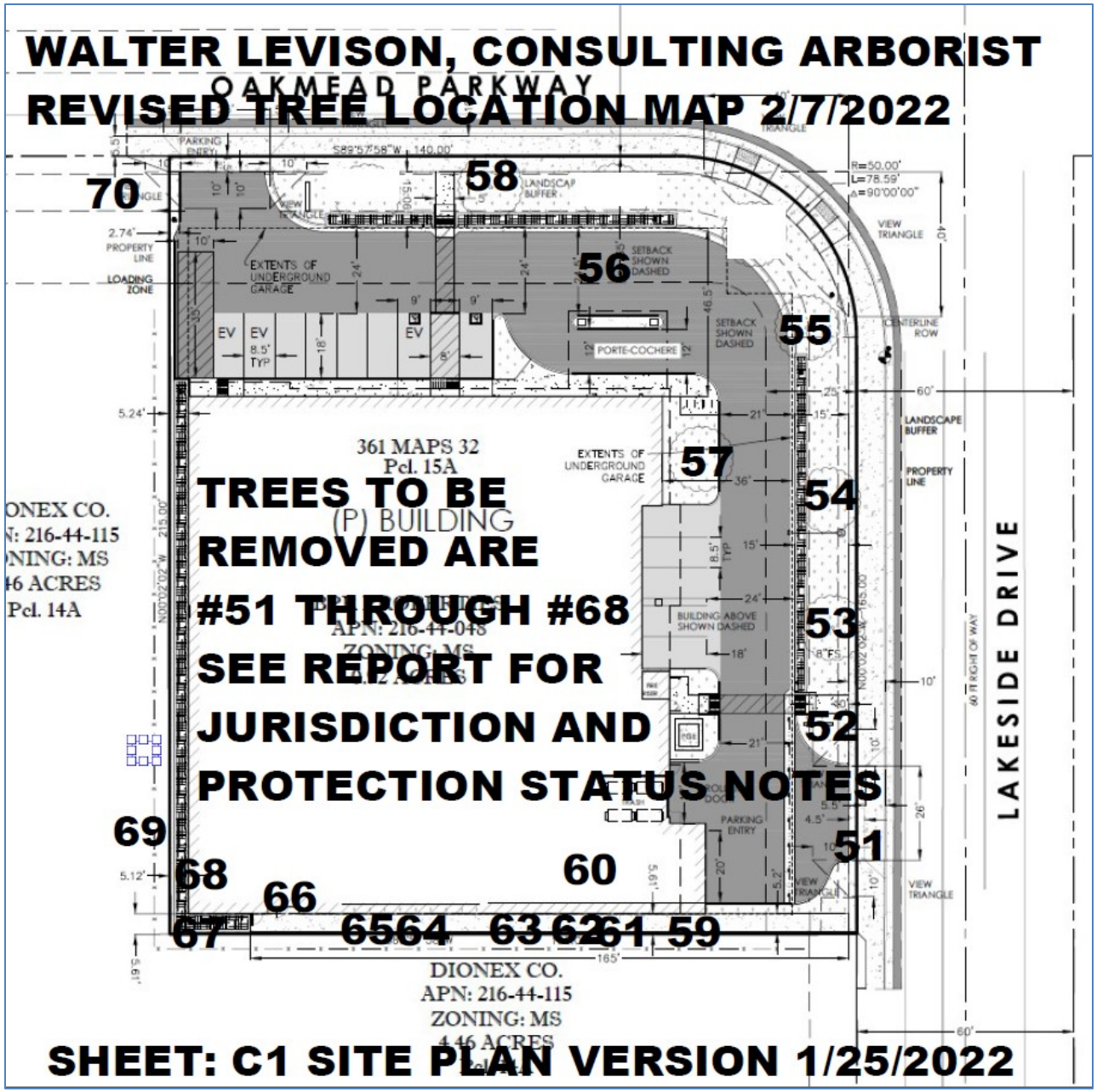
MON: A Project Arborist must be present to monitor specific work as noted for each tree.

10.0 Tree Location Map Mark-ups

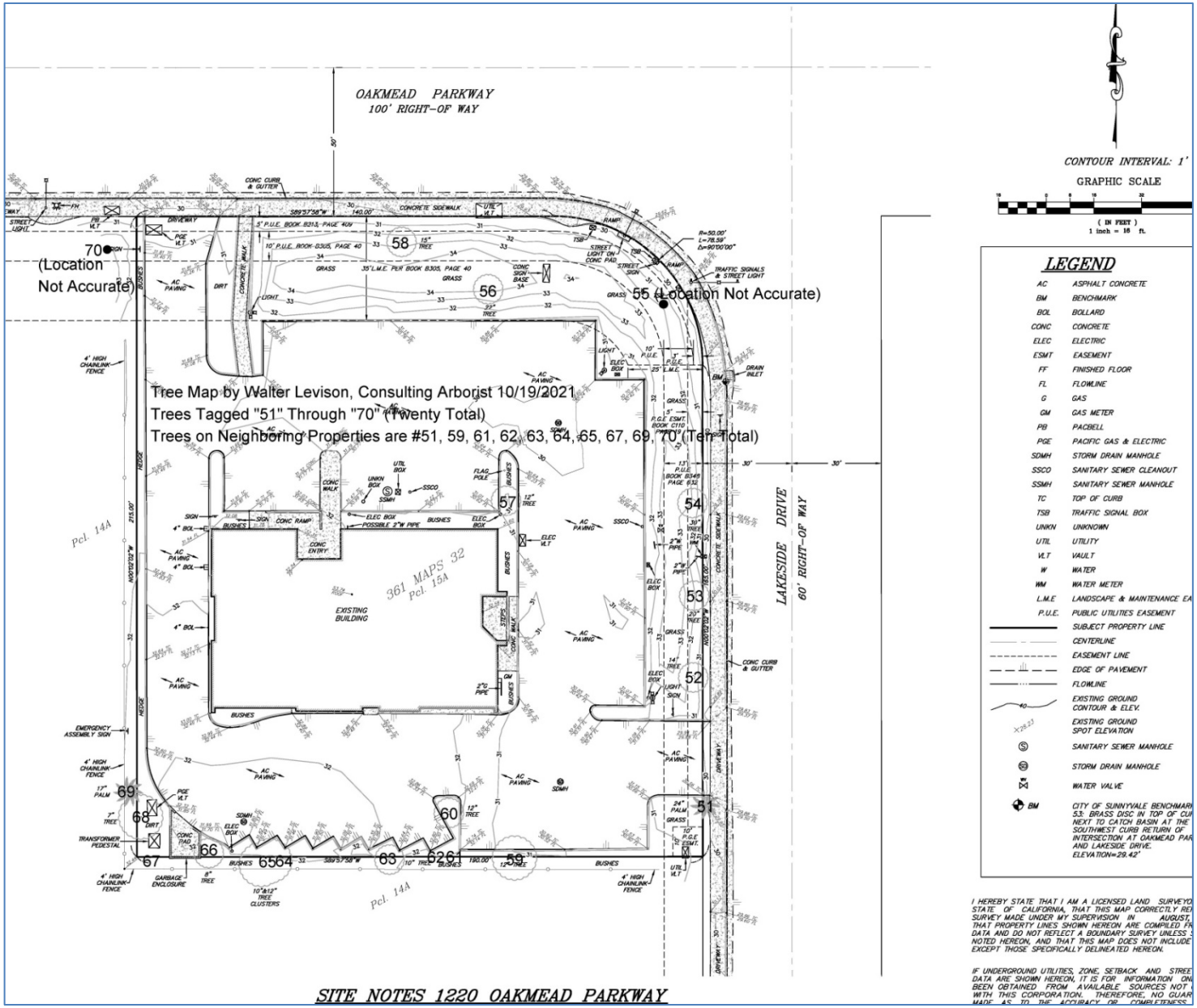
Map 1 on this page is sheet C1 proposed site plan, version 1/25/2022, overlaid with WLCA's tree tag numbers #51 through #70.

All trees are expected to be removed on site and off site, except for trees #69 and #70 west of the project, due to direct and indirect conflicts with proposed grading, utilities, building-related construction, and landscape renovation construction and planting.

Map 2 tree map markup on the following report page shows the actual civil surveyor plotted trunk base locations for most of the 20 trees included in the WLCA study population.



RIGHT: MAP 1



RIGHT: MAP 2

11.0 Attached: Appraisal Worksheet

An appraisal worksheet detailing appraised values of all survey trees of all diameter size classes is a required component of all arborist reports being submitted to City of Sunnyvale, California planning division Staff.

Appraisal information was prepared using the 10th edition of the *Guide for Plant Appraisal, 2nd Printing* (2019). The dollar values of each survey tree derived from these calculations are indicated at the right hand edge of the worksheet attached to the end of this WLCA arborist report.

Walter Levison
CONSULTING ARBORIST

Valuation Appraisal Worksheet Based on *Guide for Plant Appraisal, 10th Edition* (2019)
"Functional Replacement Method / Trunk Formula Technique"
Site: 1220 Oakmead, Sunnyvale, California. 10/20/2021

								Depreciation Factors					Line 9		Line 10	Line 11	
Tree Tag #	Name (Initials)	WCISA Speces Group Classification Booklet Page	Health (Weighted 0.15)	Structure (Weighted 0.70)	Form (Weighted 0.15)	Overall Condition Rating (OCR) "Weighted Method"	Diameter Inches at 4.5 ft. Above Grade	Functional Limitations	External Limitations	WCISA Species Group Number	Trunk Square Inches for Replacement-Size Specimen of This Species	Average SF Bay Area Cost of 24 Inch Box Tree (2019)	(UTC) Unit Tree Cost per Sq Inch (M Divided by L)	Trunk Area (TA) ((dia. x dia.) x 0.785)	Basic Functional Replacement Cost (BFRC) = (OxN)	Depreciated Functional Replacement Cost (DFRC) = PxGxIxJ	Rounded-off Appraised Values
51	Wr	37	3x ($25 per clear trunk foot x height) = 3 x ($25 X 18) = $1,350. $1,350 X condition = $1,350 X .70 = $945.														**$945**
52	Mg	21	0.2	0.1	0.3	15%	15.8	80%	90%	3	3.8	$250.00	$65.79	195.97	$ 12,893	$ 1,346	**$1,350**
53	Mg	21	0.25	0.2	0.3	22%	20.5	80%	90%	3	3.8	$250.00	$65.79	329.90	$ 21,704	$ 3,477	**$3,480**
54	Mg	21	0.25	0.1	0.3	15%	28.3	80%	90%	3	3.8	$250.00	$65.79	628.70	$ 41,362	$ 4,542	**$4,540**
55	Mg	21	0.15	0.1	0.3	14%	21.5	80%	90%	3	3.8	$250.00	$65.79	362.87	$ 23,873	$ 2,363	**$2,360**
56	Mg	21	0.25	0.1	0.3	15%	20.8	80%	90%	3	3.8	$250.00	$65.79	339.62	$ 22,344	$ 2,453	**$2,450**
57	Pk	30	0.25	0.2	0.5	25%	13.2	60%	90%	1	2.09	$250.00	$119.62	136.78	$ 16,361	$ 2,231	**$2,230**
58	Mg	21	0.25	0.1	0.3	15%	15.3	80%	90%	3	3.8	$250.00	$65.79	183.76	$ 12,090	$ 1,327	**$1,330**
59	Lsp.	19	0.3	0.25	0.6	31%	11.3	50%	90%	3	3.8	$250.00	$65.79	100.24	$ 6,595	$ 920	**$920**
60	Pk	30	0.5	0.3	0.6	38%	11.7	40%	90%	1	2.09	$250.00	$119.62	107.46	$ 12,854	$ 1,735	**$1,740**
61	Lsp.	19	0.2	0.15	0.6	23%	3.7	40%	90%	3	3.8	$250.00	$65.79	10.75	$ 707	$ 57	**$60**

Walter Levison
CONSULTING ARBORIST

Valuation Appraisal Worksheet Based on *Guide for Plant Appraisal, 10th Edition* (2019)
"Functional Replacement Method / Trunk Formula Technique"
Site: 1220 Oakmead, Sunnyvale, California. 10/20/2021

								Depreciation Factors					Line 9		Line 10	Line 11	
Tree Tag #	Name (Initials)	WCISA Speces Group Classification Booklet Page	Health (Weighted 0.15)	Structure (Weighted 0.70)	Form (Weighted 0.15)	Overall Condition Rating (OCR) "Weighted Method"	Diameter Inches at 4.5 ft. Above Grade	Functional Limitations	External Limitations	WCISA Species Group Number	Trunk Square Inches for Replacement-Size Specimen of This Species	Average SF Bay Area Cost of 24 Inch Box Tree (2019)	(UTC) Unit Tree Cost per Sq Inch (M Divided by L)	Trunk Area (TA) ((dia. x dia.) x 0.785)	Basic Functional Replacement Cost (BFRC) = (OxN)	Depreciated Functional Replacement Cost (DFRC) = PxGxIxJ	Rounded-off Appraised Values
62	Lsp.	19	0.15	0.15	0.7	23%	**multi stem total**	40%	90%	3	3.8	$250.00	$65.79	23.00	$ 1,513	$ 127	**$130**
63	Lsp.	19	0.15	0.15	0.5	20%	11.4	40%	90%	3	3.8	$250.00	$65.79	102.02	$ 6,712	$ 489	**$490**
64	Lsp.	19	0.2	0.16	0.4	20%	**multi stem total**	40%	90%	3	3.8	$250.00	$65.79	89.00	$ 5,855	$ 426	**$430**
65	Lsp.	19	0.2	0.1	0.35	15%	**multi stem total**	40%	90%	3	3.8	$250.00	$65.79	27.00	$ 1,776	$ 98	**$100**
66	Lsp.	19	0.3	0.2	0.5	26%	9.2	40%	90%	3	3.8	$250.00	$65.79	66.44	$ 4,371	$ 409	**$410**
67	Pu	26	0.15	0.15	0.5	20%	**multi stem total**	40%	90%	1	2.09	$250.00	$119.62	17.00	$ 2,033	$ 148	**$150**
68	Lsp.	19	0.4	0.25	0.5	31%	8.4	40%	90%	3	3.8	$250.00	$65.79	55.39	$ 3,644	$ 407	**$410**
69	Washingtonia robusta (same as tree #51). 3x ($25 per clear trunk foot x height) = 3 x ($25 X 27) = $2,025. $2,025 X condition = $2,025 X 0.75 = $1,518.75. Rounded to nearest 10 is $1,520.																**$1,520**
70	Mg	21	0.35	0.35	0.8	42%	21.6	80%	90%	3	3.8	$250.00	$65.79	366.25	$ 24,095	$ 7,243	**$7,200**

Walter Levison
CONSULTING ARBORIST

Valuation Appraisal Worksheet Based on *Guide for Plant Appraisal, 10th Edition* (2019)
"Functional Replacement Method / Trunk Formula Technique"
Site: 1220 Oakmead, Sunnyvale, California. 10/20/2021

								Depreciation Factors					Line 9		Line 10	Line 11	
Tree Tag #	Name (Initials)	WCISA Speces Group Classification Booklet Page	Health (Weighted 0.15)	Structure (Weighted 0.70)	Form (Weighted 0.15)	Overall Condition Rating (OCR) "Weighted Method"	Diameter Inches at 4.5 ft. Above Grade	Functional Limitations	External Limitations	WCISA Species Group Number	Trunk Square Inches for Replacement-Size Specimen of This Species	Average SF Bay Area Cost of 24 Inch Box Tree (2019)	(UTC) Unit Tree Cost per Sq Inch (M Divided by L)	Trunk Area (TA) ((dia. x dia.) x 0.785)	Basic Functional Replacement Cost (BFRC) = (OxN)	Depreciated Functional Replacement Cost (DFRC) = PxGxIxJ	Rounded-off Appraised Values
NOTES: **1. OVERALL CONDITION RATING RANGE per the new 10th edition, 2nd Printing, of Guide for Plant Appraisal (2019):** **Excellent: 81-100%** **Good: 61-80%** **Fair: 41-60%** **Poor: 21-40%** **Very Poor: 6-20%** **Dead: 0-5%** **ROUNDING: Values over $5,000 are rounded to nearest $100. Values below $5,000 are rounded to nearest $10.** **2. MULTI STEM TREES: For trees with multiple mainstems, the total of all mainstem cross sectional areas was used as the "trunk area" calculation. This total cross sectional area is a numeric value in square inches (sq. in.).** **3. CONDITION RATINGS / APPRAISAL TABLE VS. DATA TABLE: Because of the new appraisal methods outlined in the 2019 edition of the Guide for Plant Appraisal, 10th edition 2nd printing, the condition ratings calculated in the "Overall Condition Rating / Weighted Method" column, and the data noted in the health and structure columns of this spreadsheet (with calculations embedded), may in some cases be slightly different from data in the WLCA arborist report tree data table. WLCA attempted to keep overall condition rating values as consistent as possible between the two data tables (i.e. the appraisal data table and the tree data table in the arborist report).**																**Total Appraised Value of All Study Trees**	**$32,245**

Statement of Qualifications and Relevant Experience
Walter S. Levison Jr.

23 years specializing in rapid response, rapid turnaround, high quality independent arboriculture consulting for municipalities, developers, architects, engineers, and government agencies throughout the greater San Francisco Bay Area.

Extensive consulting experience performing private and municipal tree assessment and tree management planning, including use of a microdrill decay detection device (RESI F300) and current U.S. standard tree risk assessment (TRAQ) protocols.

Speaker at California Tree Failure Report Program Annual Meetings (University of California Cooperative Extension), Western Chapter ISA certified arborist continuing education functions, Bay Area Landscape Supervisor Forum, City of Belmont Planning Commission and City Council meetings, and as a commissioner on the City of Millbrae Tree Board.

International leadership experience in a U.S. Peace Corps / Thailand agroforestry setting.

Education

- UC Santa Cruz, Bachelor of Arts Environmental Studies / Soil and Water Resources 1990
- Chancellor's Award 1990

Certifications & Registrations

- Tree Risk Assessment Qualification - TRAQ (International Society of Arboriculture) 2009
- Registered Consulting Arborist - RCA (American Society of Consulting Arborists) 2002
- Certified Arborist - CA (International Society of Arboriculture) 1996

Professional Associations

- American Society of Consulting Arborists (ASCA) – Registered Member since 2002
- International Society of Arboriculture (ISA) – Life Member since 1999
- International Society of Arboriculture Western Chapter United States (WCISA)

Relevant Municipal Experience (Partial)

City of Millbrae, On-Call Consulting Arborist
On-call contract-basis consulting arborist for the City of Millbrae Parks Department and other City Departments, from 2021 to present (2022). From 2021 to 2022, WLCA completed three (3) large scale consulting assignments involving tree assessment and TRAQ risk rating determination for over 200 large eucalyptus specimens on public park properties, including high-use facilities such as a City skate park and exercise facilities (jogging paths, etc.). The written reports, maps, and tree databases associated with these projects included color-coded long-term tree removal and tree pruning prioritization ratings that allowed City Staff to effectively prioritize their limited tree removal and maintenance budget to minimize the public's exposure to risk of tree and tree part failure and impact over a 3 to 5 year period.

City of San Mateo, Indian Springs Park, Tree Risk Analysis & Species Conversion Feasibility Study
Prepared full comprehensive arborist report package for Parks Department Staff in 2018, including tree risk rating determination for 58 eucalyptus specimens of various species ranging from 50 to 130 feet in height. Determined various potential failure modes, identified all static and mobile ground-based targets, and estimated occupancy rates for all targets. Prioritized tree maintenance, tree removal, and additional decay detection investigation needs. Analyzed changes to wind velocity and wind loading on park trees that might occur as a result of partial tree removal in the park. Prepared comprehensive replanting plan for the park, including special replacement tree species and cultivars, costs, irrigation best management practices, etc.

Town of Los Gatos, Contract Town Arborist
On-call contract planning arborist for the Town of Los Gatos Planning and Community Development Department continuously since November, 2015. Walter Levison prepares comprehensive site plan analysis-type arborist reports for use by Staff. Tree analysis is typically for complicated, steeply sloped hillside sites, and includes valuation appraisals of all trees.

City of Belmont, Contract City Arborist:
On-call contract planning arborist for the City of Belmont Planning and Community Development Department continuously between 1999 and 2020. Walter Levison prepared over 300 site plan analysis-type arborist reports for City Staff during that 21 year period. WLCA performed pre-construction tree protection signoffs, periodic construction monitoring, and code enforcement when necessary, and worked closely with City Staff, site plan project teams, and property owners to arrange compromise solutions that allowed site work to proceed while mitigating some negative impacts to key specimen trees.

San Francisco Public Utilities Commission (SFPUC):
On-call contract project arborist representing the SFPUC during pre-construction and construction phases of Bay Division Pipelines 3, 4, and 5 since 2010. Duties have included tree database creation, high risk tree analysis, prescribing tree impact mitigation measures to preserve key oak specimens along drinking water delivery pipeline right of ways, root pruning, setup of root protection fencing and trunk buffer wraps, monitoring big water infrastructure installation near trees being retained, and mitigation tree installation.

City of American Canyon:
Performed City-wide street tree and parks tree GPS survey and assessment over a three year period. Submitted comprehensive tree management plans to City Staff, complete with action priority rankings for tree removal, pruning, and other maintenance. Co-presented an in-depth tree risk assessment seminar and field day for Staff.

City of Menlo Park:
Assessed approximately 3,000 mature street trees using an innovative set of ten 'defects and hazards' parameters entered into the City digital tree inventory. Trees were assigned action priority ratings to effectively manage tree risk on a limited City budget. Prepared the official street tree management plan for Staff to accompany the updated digital tree inventory record. Sourced and delivered hard-to-find oak species for the City street tree replacement program.

Relevant Experience (1991-1999)

City of Millbrae Community Preservation Commission (Tree Board)
2001-2006

Barrie D. Coate & Associates
Associate Consulting Arborist for City of Saratoga site plan projects
1999

Bartlett Tree Expert Co. / San Francisco Division
Pruning, Fertilization, Spraying, Arborist Report Preparation
1998

Western Environmental Consultants, Inc.
(Pacific Gas & Electric Contract)
Consulting Utility Forester
1996-1998

U.S. Forest Service / Covelo Ranger District
Hydrotechnician and Tree Survey
1995

U.S. National Park Service / Golden Gate National Recreation Area
Habitat Restoration and Native Plant Propagation Volunteer
1994

U.S. Peace Corps / Thailand
Agroforestry, Soil Conservation Farming, and Primary School Environmental Education
1991-1993

Ecology Studies

Five-Week Rocky Mountain Wilderness Field Ecology Study
Wyoming, U.S.A.
7/86-8/86 (5-week backpack with university course credit)
University of California Santa Cruz Extension / Dr. Edward Grumbine

First-Ever Joint U.S./China Field Ecology Study
Xujiaba Forest Reserve, Yunnan Province, China, and other locations in Yunnan Province
9/89-12/89 (3 months)
Wildlands Studies Field Ecology Programs, Santa Cruz, CA / Dr. Christopher Carpenter

Principal Arboriculture Services and Specialties

Rapid response, rapid turnaround, high quality tree inventories with health and structural assessment.

Advanced decay detection (invasive using a RESI F300 microdrill device, or non-invasive).

Site plan impact analysis for municipal planning department staff.

Innovative tree protection and preservation planning.

Long-range tree management planning.

Tree valuations (plant appraisal).

TRAQ risk rating determination.

High-risk tree evaluation and management.

Tree species selection.

Construction monitoring.

Landscape problem solving.

Nursery stock grading and pre-installation girdling root mitigation.
Independent audits of pruning work to verify compliance with ANSI-A300 tree care standards.

2022 MUNICIPAL REFERENCE LIST / WALTER LEVISON, CONSULTING ARBORIST

1. John Gianoli, Parks Director
   City of Millbrae Parks Department
   621 Magnolia Avenue
   Millbrae, CA 94030
   Office (650) 259-2378
   Relationship: (2021-onward) retains Walter Levison on an as-needed, on-call basis to perform consulting services as the (unofficial) Contract City Arborist to City of Millbrae. In 2021, Levison performed multiple large-scale TRAQ tree risk assessments at public park and trail properties for the City, assessing over 200 eucalyptus specimens for risk, and preparing tree tables with color-coded numeric prioritization codes indicating specific removal or pruning prescriptions to reduce risk to high-value, high-occupancy type targets.

2. Joel Paulson, Director of Planning and Community Development
   Town of Los Gatos
   110 E. Main St.
   Los Gatos, CA 95030
   Office: (408) 354-6879
   Relationship: Oversight of Walter Levison as the Contract Town Arborist (Planning Division), 2015 to 2022 (current).

3. Damon DiDonato, Senior Planner
   City of Belmont Planning and Community Development Department
   1 Twin Pines Lane
   Belmont, CA 94002
   Office (650) 637-2908
   Relationship: Oversight of Walter Levison's duties as the Contract City Arborist.

4. Carlos Demelo, Director of Planning and Community Development
   City of Belmont Planning and Community Development Department
   1 Twin Pines Lane
   Belmont, CA 94002
   Office (650) 595-7440
   Relationship: Oversight of Walter Levison's duties as the Contract City Arborist.

5. Dorinda Himes, Environmental Compliance Manager Consultant Applied Technology & Science
   SFPUC WSIP Office
   200 Brown Road, Suite 306
   Fremont, CA 94539
   Cell (415) 233-2599
   Relationship: Oversight of Walter Levison, contract project arborist for the Hetch Hetchy Water System Improvement Program, Bay Division Pipeline 3, 4, and 5 projects.

6. Mike Gibbons Superintendent
   Certified Arborist / Municipal Specialist WE-10231A
   Public Works Department Municipal Services Center
   1400 Broadway Redwood City, CA 94063 (650) 780-7493
   Email: mgibbons@redwoodcity.org
   Relationship: Retained Walter Levison to perform in-depth tree risk studies of street tree oak specimens.

7. Chris Costanzo, Parks Maintenance Supervisor
   Hayward Area Recreation and Park District (HARD)
   1099 E Street
   Hayward, CA 94541
   Relationship: Oversight of Walter Levison during WLCA preparation of various investigative reports on the decline of redwood tree specimens throughout the HARD park system. Trees deemed beyond recovery were recommended for removal due to safety concerns. Trees deemed salvageable were recommended for tree-specific maintenance such as irrigation system upgrades and increased irrigation volume.

8. Matthew Fried, City Arborist
City of San Mateo Parks Department
330 W. 20th Avenue
San Mateo, CA 94403
Office: (650) 522-7422
Relationship: Retained Walter Levison to perform a very comprehensive, in-depth tree risk analysis and species conversion feasibility study of Indian Springs Park in San Mateo. The park contains a mature grove of fifty-eight (58) protected-size eucalyptus specimens, most of which are over 100 years of age and over 100 feet in height.

WALTLEV-01 RVANZANDT

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 5/7/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Assured Partners of CA Insurance Services, LLC dba: Wateridge Insurance Services 10717 Sorrento Valley Road San Diego, CA 92121	PHONE (A/C, No, Ext): (858) 452-2200	FAX (A/C, No): (858) 452-6004
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Admiral Ins Company	24856
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED

Walter Levison dba Walter Levison Consulting Arborist
165 Linda Vista
Millbrae, CA 94030

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 2,000,000
	CLAIMS-MADE X OCCUR			FEIECC2359904	5/6/2021	5/6/2022	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 50,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Professional Liabili			FEIECC2359904	5/6/2021	5/6/2022	Aggregate Limit	2,000,000
A	Pollution Legal Liab			FEIECC2359904	5/6/2021	5/6/2022	Aggregate Limit	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

project site 681 Gateway Blvd South San Francisco, CA
Alexandria Real EstateEquiies, Inc as additional insureds with respects to General Liability when required by written contract per form ECC319(07-12) and CG2037(07-04).

Contractural Liability Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. Solely for the purposes of liability assumed in an insured contract

CERTIFICATE HOLDER

[redacted]

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE