Assessment of Six (6) Protected-Size Trees at and adjacent to 14300 Lora Drive Los Gatos, California

Prepared for:
Jocelyn Shoopman, Associate Planner
Town of Los Gatos Community Development Department
110 E. Main Street
Los Gatos, CA 95030

Field Visit:
Walter Levison, Contract Town Arborist (CTA)
9/21/2020

Report by CTA
9/25/2020

EXHIBIT 7

Table of Contents

1.0 Summary

a. Below is a matrix style overview of protected-size trees (non-exempt species, 4-inches diameter at 4.5 feet above grade on site, and adjacent to the site). In the table, the CTA (Contract Town Arborist) has outlined expected impacts to each tree, along with suggestions for adjustments to the plan set (if applicable) that will optimize tree survival over the long term.

The CTA calculated the appraised value of each tree, which can be used as a tool for determining the proper security bond amount to have the applicant post with the Town as a hedge against site plan-related tree damages (if applicable). Appraised values can also be used to determine damage fees if trees are determined during or after construction to have been damaged such that mitigation is required.

Mitigation replacement rate and size is noted for each tree in the case that removal or damage to trees occurs.

Table 1.0(a) (REFER TO THE CTA'S TREE MAP MARKUP WHEN REVIEWING THIS MATRIX)

1 Tree Tag Number / Overall Condition Rating/ Disposition	2 Impacts Expected if Site were Built as Currently Proposed on Applicant Sheet C-1 Version 8/17/2020	3 Large Protected Tree (LPT)? Tree Conservation Suitability Rating (TCS)?	4 Appraised Value[1]	5 Critical Root Zone (CRZ) (6 X Dia.) as an Offset Radius	6 Suggested Changes to Applicant's Proposed Plans to Boost Tree Conservation Suitability Rating (TCS) to "Moderate" or "Good", if Tree is to be Preserved and Protected. Suggested Root Protection Zone (RPZ) Chain Link Fence Offset Radius.	7 Replacement Rate Per Canopy Lost	8 Replacement Size Tree
41 GOOD RETAIN	Minimal impacts. Proposed grassy swale and joint trench alignment are both outside of the Critical Root Zone. Fence off and use trunk buffer wrap. Irrigation is optional by recommended.	No. Moderate	$1,290.	Minimum 6 foot offset is suggested for smaller diameter trees to maintain soil moisture and preserve extended lateral woody roots.	No applicant plan changes required. Use RPZ fencing as shown on CTA's marked up tree map at 8 feet to 15 feet radius offset from trunk, in all directions. Use trunk buffer wraps for above ground protection of lower trunk.	3 X $250 = $750.	24" Box

[1] Calculated per the newest edition (10th edition, 2nd Printing) of *Guide for Plant Appraisal*, 2019. The Trunk Formula Technique (TFT) was the specific technique noted in the Guide used to determine the dollar valuations noted in Table 1.0(a). Palm appraisals are performed differently, using a calculation of replacement cost, and then multiplying that cost by a condition rating factor and a functional limitations factor.

1 Tree Tag Number / Overall Condition Rating/ Disposition	2 Impacts Expected if Site were Built as Currently Proposed on Applicant Sheet C-1 Version 8/17/2020	3 Large Protected Tree (LPT)? Tree Conservation Suitability Rating (TCS)?	4 Appraised Value[1]	5 Critical Root Zone (CRZ) (6 X Dia.) as an Offset Radius	6 Suggested Changes to Applicant's Proposed Plans to Boost Tree Conservation Suitability Rating (TCS) to "Moderate" or "Good", if Tree is to be Preserved and Protected. Suggested Root Protection Zone (RPZ) Chain Link Fence Offset Radius.	7 Replacement Rate Per Canopy Lost	8 Replacement Size Tree
42 EXC. RETAIN	Severe, due to proposed 6" cut for concrete banding, and 6" cut for class II baserock base section cut, at only 2 linear feet offset radius from trunk edge. Current distance from driveway to trunk edge is shown on sheet C-1 at +/- 7 horizontal feet. However, in reality, it is simply a gravel filled driving area, which bleeds into the landscape surrounding tree #42 at just 2 to 4 feet north of the tree trunk edge (see digital images section of this report).	No Moderate	$7,200.	22 (Although for palms, this can be reduced down to roughly 5 to 10 feet offset radius).	Suggest either (1) increase offset distance of the proposed driveway's concrete banding to approximately 5 or 10 feet offset radius from trunk edge, or (2) build driveway with concrete banding at current proposed location 2 feet offset from trunk using a "zero cut" type build regime where the entire baserock base section is floated over grade, by using a TRIAXIAL GEOGRID OR BIAXIAL GEOGRID as an underlayment, pinned down over existing grade elevation soil, and compacting the class II baserock base material over the geogrid, which would raise the elevation of the roadway base and concrete banding to 12 inches above surrounding grade, which may still be ADA-compliant, if the edging can be tapered in some manner to avoid a trip hazard (by using a soil edging that tapers from 12 inches height above grade at the edge of the concrete banding, down to to zero inches at-grade some lateral distance out from the banding). Use trunk buffer wraps as shown on CTA's tree map markup to protect trunk. Use chain link root protection zone (RPZ) fence perimeter at 0 to 15 feet radius offsets from trunk in a full perimeter as shown on CTA's tree map markup, to protect the root zone from being compacted and rutted (damaged) during contractor ingress, egress, storage, staging, etc. on site.	3 X $250 = $750.	24" Box

1 Tree Tag Number / Overall Condition Rating/ Disposition	2 Impacts Expected if Site were Built as Currently Proposed on Applicant Sheet C-1 Version 8/17/2020	3 Large Protected Tree (LPT)? Tree Conservation Suitability Rating (TCS)?	4 Appraised Value[1]	5 Critical Root Zone (CRZ) (6 X Dia.) as an Offset Radius	6 Suggested Changes to Applicant's Proposed Plans to Boost Tree Conservation Suitability Rating (TCS) to "Moderate" or "Good", if Tree is to be Preserved and Protected. Suggested Root Protection Zone (RPZ) Chain Link Fence Offset Radius.	7 Replacement Rate Per Canopy Lost	8 Replacement Size Tree
43 FAIR RETAIN (NEIGHBOR TREE)	Minor to Moderate	No Moderate	$410.	CRZ 3.5 feet. Suggested min. offset is 6 feet.	No applicant plan changes required. Offset to proposed concrete banding is approximately 6 feet.	3 X $250 = $750.	24" Box
44 FAIR RETAIN (NEIGHBOR TREE)	Minor to Moderate	No Moderate	$430.	CRZ 3.5 feet. Suggested min. offset is 6 feet.	No applicant plan changes required. Offset to proposed concrete banding is approximately 6 feet.	3 X $250 = $750.	24" Box
45 GOOD RETAIN (NEIGHBOR TREE)	Minor to Moderate	No Good	$1,020.	CRZ: 4 feet. But min. 6 foot offset to construction is suggested.	No applicant plan changes required. Proposed residence will be +/- 25 feet offset. However, for protection of roots extending through the 14300 Lora property, it is suggested that we fence off the tree with chain link root protection zone fencing at	3 X $250 = $750.	24" Box

1 Tree Tag Number / Overall Condition Rating/ Disposition	2 Impacts Expected if Site were Built as Currently Proposed on Applicant Sheet C-1 Version 8/17/2020	3 Large Protected Tree (LPT)? Tree Conservation Suitability Rating (TCS)?	4 Appraised Value[1]	5 Critical Root Zone (CRZ) (6 X Dia.) as an Offset Radius	6 Suggested Changes to Applicant's Proposed Plans to Boost Tree Conservation Suitability Rating (TCS) to "Moderate" or "Good", if Tree is to be Preserved and Protected. Suggested Root Protection Zone (RPZ) Chain Link Fence Offset Radius.	7 Replacement Rate Per Canopy Lost	8 Replacement Size Tree
46 GOOD RETAIN (NEIGHBOR TREE)	Minimal or Null	No Moderate	$20,300.	20 (Although for palms, this can be reduced down to roughly 5 to 10 feet offset radius).	No applicant plan changes required. Tree is located in close proximity to proposed new grassy swale grading and proposed new joint trench (JT) alignment. However, the negative effects from these actions in terms of actual, on the ground root loss to this tree are considered "negligible", because of the special situation concerning this neighbor property owner (17525 Wedgewood Avenue): the entire property, for some unknown reason, was built up approximately 3 vertical feet in elevation, such that tree #46 effectively sits at 36 inches elevation above the soil surface elevation of 14300 Lora Drive. Given that a tree's root system is typically about 4 to 5 feet depth below the trunk at the very most, and extends out from trunk laterally between zero and 2 feet depth, this means that the entire tree #46 lateral root mass is essentially contained in the fill soil "pad" floating 3 feet above surrounding pre-project grade, and would not be subject to any damages from any type of work occurring next door at 14300 Lora Drive.	3 X $250 = $750.	24" Box

2020-21 Town of Los Gatos In-lieu fee equivalent = $250 per each required 24" box mitigation tree planting not installed on the site.

2.0 Assignment & Background

Walter Levison, Contract Town Arborist (CTA) was directed to tag and assess all Protected-Size (4-inch diameter and greater) trees at and adjacent to the Lora Drive property.

The CTA assessed the entire set of plans, with the civil grading plan sheet C-1 dated 8/17/2020 used as the tree map markup embedded in this report.

Tree data were collected and assembled by the CTA in section 11.0 of this report.

Tree tags were affixed by the CTA to the mainstems of the on-site trees. The CTA's tags are professional grade racetrack shaped aluminum tags numbering "41" through "46" (only affixed to the onsite trees #41, 42, but attached using nails to the wooden property line fence in front of the various off-site neighbor trees).

The CTA's recommendations in section 4.0 of this report are based on published information in various standard arboriculture texts, such as the series of *Best Management Practices* (BMP) companion publication (booklets) published by International Society of Arboriculture that are periodically updated over time. The series of BMP booklets accompany the ANSI-A300 USA standards for tree care used by U.S.-based tree care companies.

Additional supporting information includes digital images archived by the CTA as section 10.0, a tree map markup JPEG embedded as section 12.0, and an appraisal data worksheet attached as section 13.0.

The CTA utilized a forester's D-tape to determine tree mainstem (trunk) diameters at 4.5 feet above grade. The D-tape is a circumferential tape that converts actual trunk circumference to an averaged diameter in inches and tenths of inches.

Tree heights were determined using a digital Nikon Forestry Pro 550 hypsometer. Tree canopy spread diameters were estimated visually or paced off. The tree canopy driplines shown as black clouding on the tree map markup are approximate only.

3.0 Town of Los Gatos – What Trees are Protected?

Per the most recent (2015) iteration of the Town of Los Gatos tree ordinance (Town Code Chapter 29 – Zoning Regulations, Article 1), the following regulations apply to all trees within the Town's jurisdiction (wordage adjusted):

1. All trees with at least a single mainstem measuring four (4) inches diameter or greater at 4.5 feet above grade are considered "**Protected Trees**" when removal relates to any development review.

2. 12 inch diameter (18 inch multistem total) trees on developed residential property not currently subject to development review.

3. 8 inch diameter (8 inch multistem total) blue oak (*Quercus douglasii*), black oak (*Quercus kellogii*), California buckeye (*Aesculus californica*), and Pacific madrone (*Arbutus menziesii*) on developed residential lots not currently subject to development review.

4. 8 inch diameter (8 inch multistem total) trees on developed residential property not currently subject to development review, on lots in the designated **Hillside Area** per the official Town map.

5. All trees with a single mainstem or sum of multiple mainstems totaling 48 inches diameter or greater at 4.5 feet above grade are considered "**Large Protected Trees" (LPT).**

6. All oak species (*Quercus spp*.), California buckeye (*Aesculus californica*), and Pacific madrone (*Arbutus menziesii*) with one or more mainstems totaling 24 inches diameter or more at 4.5 feet above grade are considered **"Large Protected Trees" (LPT).**

7. Section 29.10.0965. Prohibitions: A **permit** is required to prune, trim, cut off, or perform any work, on a single occasion or cumulatively, over a three-year period, affecting 25% or more of any **Protected Tree** (including below ground root system).

8. Section 29.10.0965. Prohibitions: A **permit** is required to prune, trim, or cut any branch or root greater than four (4) inches in diameter of a **Large Protected Tree**.

9. Section 29.10.0965. Prohibitions: A permit is required to conduct severe pruning on any protected tree. Severe pruning is defined in section 29.10.0955 as "topping or removal of foliage or significant scaffold limbs or large diameter branches so as to cause permanent damage and/or disfigurement of a tree, and/or which does not meet specific pruning goals and objectives as set forth in the current version of the International Society of Arboriculture Best Management Practices-Tree Pruning and ANSI A300-Part 1 Tree, Shrub, and Other Woody Plant Management-Standard Practices, (Pruning)."

10. Exceptions:

    Severe Pruning Exception in Town Code section 29.10.1010(3) "…..except for pollarding of fruitless mulberry (*Morus alba*) or other species approved by the Town Arborist….".

    Protected Tree Exceptions:

    a. Edible fruit or nut bearing trees less than 18 inches diameter (multistem total or single stem), including fruiting olive trees.
    b. *Acacia melanoxylon* (blackwood acacia) less than 24 inches (multistem total or single stem)
    c. *Liriodendron tulipifera* (tulip tree) less than 24 inches (multistem total or single stem)
    d. *Ailanthus altissima* (tree of heaven) less than 24 inches (multistem total or single stem)
    e. *Eucalyptus globulus* (Tasmanian blue gum) less than 24 inches (multistem total or single stem)
    f. *Eucalyptus camaldulensis* (River red gum) less than 24 inches (multistem total or single stem)
    g. *Other eucalyptus species* (E. spp.) not noted above, less than 24 inches (multistem total or single stem) **(REMOVAL O.K. ONLY AT HILLSIDE AREA LOCATIONS PER OFFICIAL TOWN MAP):** www.losgatosca.gov/documentcenter/view/176
    h. All palm species *(*except *Phoenix canariensis)* less than 24 inches (multistem total or single stem)
    i. *Ligustrum lucidum* (glossy privet) less than 24 inches (multistem total or single stem)

    Note that per the exception in part 'a' above, fruiting olive trees with stems totaling less than 18 inches are considered non-protected tree specimens.

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 Ms. Jocelyn Shoopman, Associate Planner (jshoopman@losgatosca.gov). Sample wordage for a condition of approval regarding monitoring of tree protection and tree condition:

   "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 a monthly site activity report sent to the Town. A mandatory Monthly Tree Activity Report shall be sent at least once monthly to the Town planner associated with this project (jshoopman@losgatosca.gov) beginning with the initial tree protection verification approval letter".

2. Project Team Pre-Project Adjustments, Clarifications, and Limits Suggested or Required:

   2a. Tree Protection Fencing and Trunk Buffer Wraps:

   Fence off **trees #41, #42, and #45** using chain link fencing per the distances indicated as red dashed lines shown to scale on the CTA's tree map markup below in this arborist report.

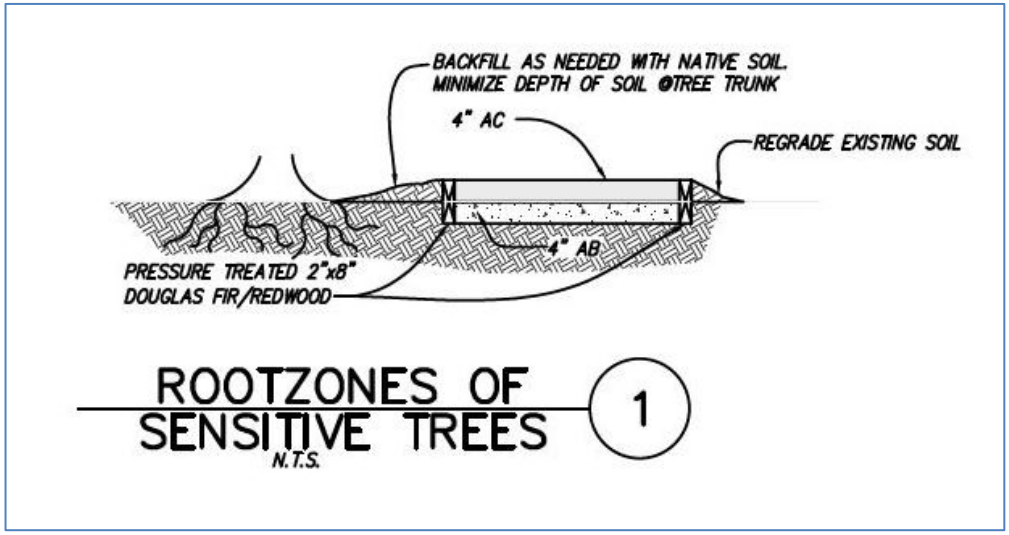
   Install trunk buffer wraps around **trees #41 and #42** per the specifications listed below in this recommendations section of the arborist report.

   2b. Frond Tie-Up:

   Tie up the fronds of **palm #42** as needed to achieve adequate airspace clearance during machinery ingress/egress, thereby avoiding damage to the canopy.

2c. Geogrid for Driveway:

Utilize a biaxial or triaxial geogrid of high enough load rating to provide robust underlayment properties for the area roughly zero to 20 horizontal feet from **palm #42** (see CTA's tree map markup in this report, showing a yellow highlighted area indicating the zone where geogrid use may be appropriate).



Eliminate all proposed baserock base section excavation by raising elevation of the driveway, such that the geogrid is placed at existing grade (relative 0.0 feet), and the baserock base is built up above 0.0 relative grade. Build the concrete banding over grade, which will result in a total elevation change of somewhere between 6 inches and 12 inches above existing soil grade. Consult with geogrid manufacturer and/or supplier to determine how much reduction in baserock base section thickness can be achieved using the geogrid underlayment and still maintain spec load bearing properties for the driveway.

If grade elevation rise creates a trip hazard that does not conform to ADA standards, then taper the concrete banding in the area of palm #42 using soil and/or other materials to "feather out" the grade as a long taper ending at zero inches. See sketch on this page for an example.

The image at left shows how a geogrid is utilized to create a "zero cut" no-dig system that allows for 100% tree root preservation.

Note that if the elevation rise of a "no dig" type driveway will be a problem that cannot be resolved through use of a tapered edging shown in the above sketch, then redesign the driveway to include a northward bend for the area adjacent to palm #42, such that the concrete banding remains at least 7 horizontal feet offset from the trunk edge of palm #42.

Upper right: Although this is not technically a "no dig" system, the civil on this WLCA project was able to reduce the total cut to 4 inches on this project, and raising the edging to 4 inches above grade. The soil taper was backfilled from 4 inches above grade at the edging, to zero inches above grade near to the tree buttress root flares, as shown in the sketch, courtesy of Sandis Civil, Silicon Valley Office.

Lower left: Tensar TriAx triaxial geogrid used at a Walter Levison project at Stanford University in 2019. This image shows the geogrid pinned down over the soil, and class II baserock being applied over the grid, prior to tamping.

3. Trunk Buffer Wrap Type III Protection:

   Prior to demolition commencement, install trunk buffers around all trees being retained on-site **(#41, #42).**

   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 at 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.

4. (Required) 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.

   Fence routes: Per the red dashed lines indicated on the CTA's tree map markup, drawn to scale, below in this arborist report.

   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.

5. Signage: The RPZ fencing shall have one sign affixed with UV-stabilized zip ties to the chain link at eye level for every 15 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 LOS GATOS TOWN CODE 29.10.1025

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

Note: Walter Levison, Contract Town Arborist is an independent consultant retained under contract with Town of Los Gatos Planning Division Staff, and is not the "PROJECT ARBORIST".

6. New Plantings / Tree Installation Specs (if applicable):

Ideally, **two (2) high flow type adjustable bubblers each emitting 1/2 to 2 gallons per minute (2GPM), depending on percolation rate of planting pit,** are set over the rootball of each single tree planting, and each tree is installed with two (2) or three (3) 2-inch diameter wooden planting stakes (not the shipping stake), with a set of figure-8 Cinch Ties ™ affixed per the standard spec image at right.

Note how the tree stakes are cut to just above the elevation of the Cinch-Ties to avoid abrasion between the stakes and the limbs and trunk during wind movement.

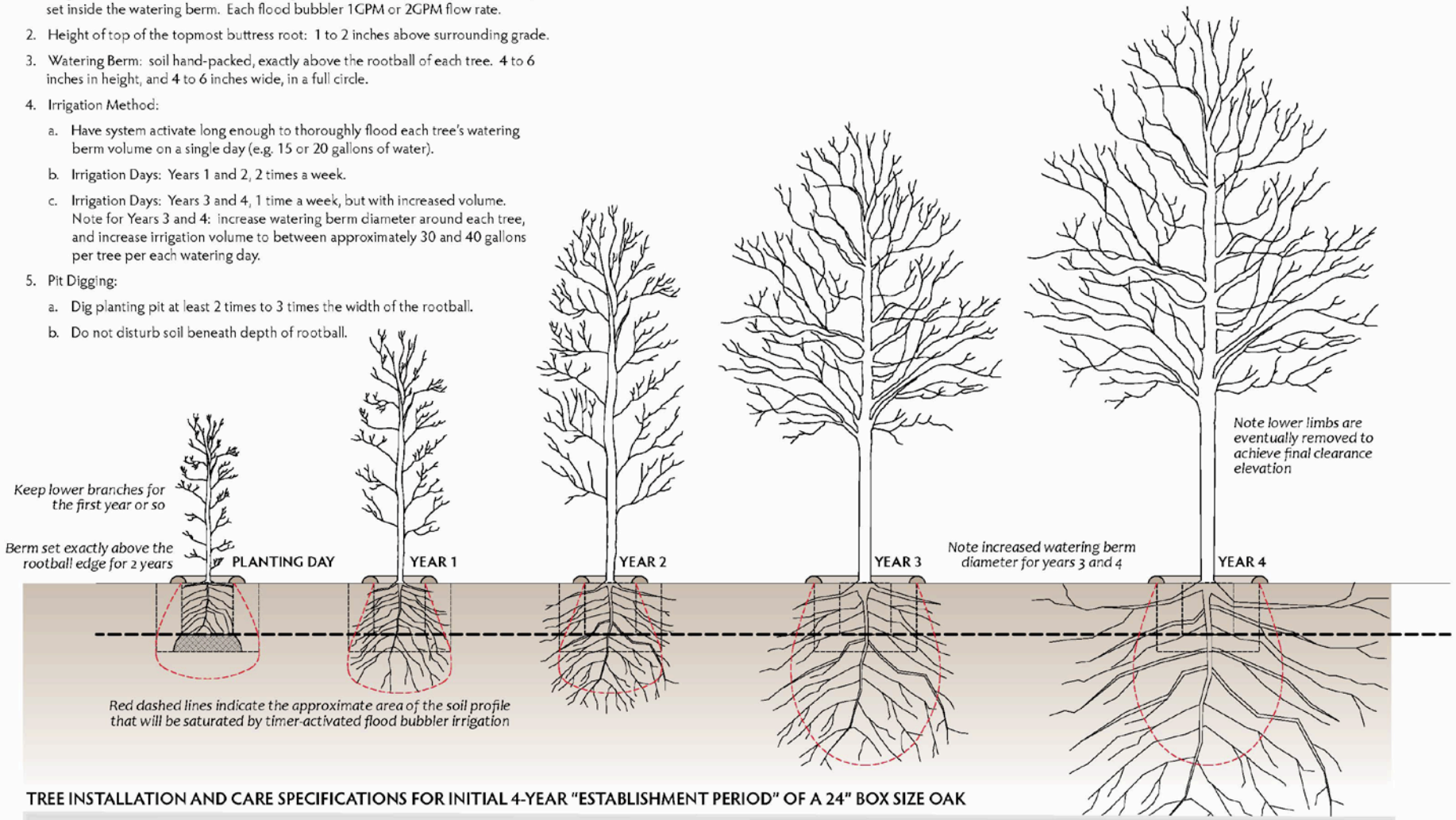
A watering berm consisting of site soil is formed around the edge of the rootball to force irrigation water to pool up directly over the rootball, as seen in the image below in this arborist report.

Above Right: Spec planting at a site on which the CTA consults, June, 2020. Note that the shipping stake was removed from the mainstem, and a narrow diameter bamboo pole was tied to the mainstem using biodegradable masking tape. This is considered a Best Management Practice at this particular site, because the mainstem was leaning off-vertical. **Do not allow the large diameter wooden shipping stake to remain tied to the mainstem, as this will cause permanent irreversible problems with tree stability over time.**

Below Right: Proper installation of a new 24" box size tree with two (2) high flow type ½ GPM to 2.0 GPM (gallon-per-minute) flood bubblers seen inside a steeply sloped watering berm built using site soil. The watering berm is built up directly over the rootball edge, which forces irrigation water directly downward into the rootball via gravity. Total volume of water flow typically needs to be at least +/-1 gallon per minute, in order to physically flood the watering berm and force water downward into the rootball via gravity flow.

Next Page: Walter Levison and Dave Muffly Planting Spec Sheet, indicating correct irrigation and watering berm building procedures for first 4 years (sandy soils may require significantly greater irrigation volume than indicated).

1. Irrigation Feed: 1/2" diameter flex tubing with two flood bubblers per each tree, set inside the watering berm. Each flood bubbler 1GPM or 2GPM flow rate.
2. Height of top of the topmost buttress root: 1 to 2 inches above surrounding grade.
3. Watering Berm: soil hand-packed, exactly above the rootball of each tree. 4 to 6 inches in height, and 4 to 6 inches wide, in a full circle.
4. Irrigation Method:
   a. Have system activate long enough to thoroughly flood each tree's watering berm volume on a single day (e.g. 15 or 20 gallons of water).
   b. Irrigation Days: Years 1 and 2, 2 times a week.
   c. Irrigation Days: Years 3 and 4, 1 time a week, but with increased volume. Note for Years 3 and 4: increase watering berm diameter around each tree, and increase irrigation volume to between approximately 30 and 40 gallons per tree per each watering day.
5. Pit Digging:
   a. Dig planting pit at least 2 times to 3 times the width of the rootball.
   b. Do not disturb soil beneath depth of rootball.



TREE INSTALLATION AND CARE SPECIFICATIONS FOR INITIAL 4-YEAR "ESTABLISHMENT PERIOD" OF A 24" BOX SIZE OAK

7. Temporary Irrigation During Construction:

It is suggested that the applicant's project arborist monitor soil moisture using a soil moisture probe and/or a soil recovery device, to ensure that root zones are being kept irrigated to field capacity soil moisture per the following irrigation regime:

a. Chinese pistache #41 at front yard: 50 to 100 gallons per week, applied 1x/week.
b. Canary Island palm #42 at driveway: 50 to 100 gallons per week, applied 1x/week.
c. Coast redwood #45 at left side of rear yard on neighbor's property: 50 to 100 gallons per week, applied 1x/week.

- Apply indicated water volume all on a single day during a single application, such as by garden hose running at high volume.

- If runoff of water will be a problem, then build a 6 inch tall watering berm along the chain link fence perimeters to contain the irrigation water and force it downward via gravity.

- Alternatively, a straw wattle can be pinned down over the ground using wooden dowels, as a quick watering berm that may be far more easily maintained than a soil watering berm that is subject to damage by construction personnel foot traffic, etc. See sample image below as an example of how this is done.

5.0 Tree Protection and Maintenance Directions per Town Code

The following is excerpted directly from the 2015 iteration of the Town of Los Gatos tree ordinance sections which provide specific tree protection directions and limitations on root pruning and above-ground pruning:

Sec. 29.10.1000. New property development.

(a) A tree survey shall be conducted prior to submittal of any development application proposing the removal of or impact to one or more protected trees. The development application shall include a Tree Survey Plan and Tree Preservation Report based on this survey. The tree survey inventory numbers shall correspond to a numbered metal tag placed on each tree on site during the tree survey. The tree survey plan shall be prepared by a certified or consulting arborist, and shall include the following information:

(1) Location of all existing trees on the property as described in section 29.10.0995;

(2) Identify all trees that could potentially be affected by the project (directly or indirectly- immediately or in long term), such as upslope grading or compaction outside of the dripline;

(3) Notation of all trees classified as protected trees;

(4) In addition, for trees four (4) inches in diameter or larger, the plan shall specify the precise location of the trunk and crown spread, and the species, size (diameter, height, crown spread) and condition of the tree.

(b) The tree survey plan shall be reviewed by the Town's consulting arborist who shall, after making a field visit to the property, indicate in writing or as shown on approved plans, which trees are recommended for preservation (based on a retention rating of high/moderate/low) using, as a minimum, the Standards of Review set forth in section 29.10.0990. This plan shall be made part of the staff report to the Town reviewing body upon its consideration of the application for new property development;

(c) When development impacts are within the dripline of or will affect any protected tree, the applicant shall provide a tree preservation report prepared by a certified or consulting arborist. The report, based on the findings of the tree survey plan and other relevant information, shall be used to determine the health and structure of existing trees, the effects of the proposed development and vegetation removal upon the trees, recommendations for specific precautions necessary for their preservation during all phases of development (demolition, grading, during construction, landscaping); and shall also indicate which trees are proposed for removal. The tree preservation report shall stipulate a required tree protection zone (TPZ) for trees to be retained, including street trees, protected trees and trees whose canopies are hanging over the project site from adjacent properties. The TPZ shall be fenced as specified in section 29.10.1005:

(1) The final approved tree preservation report shall be included in the building permit set of development plans and printed on a sheet titled: Tree Preservation Instructions (Sheet T-1). Sheet T-1 shall be referenced on all relevant sheets (civil, demolition, utility, landscape, irrigation) where tree impacts from improvements may be shown to occur;

(2) The Town reviewing body through its site and design plan review shall endeavor to protect all trees recommended for preservation by the Town's consulting arborist. The Town reviewing body may determine if any of the trees recommended for preservation should be removed, if based upon the evidence submitted the reviewing body determines that due to special site grading or other unusual characteristics associated with the property, the preservation of the tree(s) would significantly preclude feasible development of the property as described in section 29.10.0990;

(3) Approval of final site or landscape plans by the appropriate Town reviewing body shall comply with the following requirements and conditions of approval:

a. The applicant shall, within ninety (90) days of final approval or prior to issuance of a grading or building permit, whichever occurs first, secure an appraisal of the condition and value of all trees included in the tree report affected by the development that are required to remain within the development using the Tree Value Standard methodology as set forth in this Chapter. The appraisal of each tree shall recognize the location of the tree in the proposed development. The appraisal shall be performed in accordance with the current edition of the Guide for Plant Appraisal published by the Council of Tree and Landscape Appraisers (CTLA) and the Species and Group Classification Guide published by the Western Chapter of the International Society of Arboriculture. The appraisal shall be performed at the applicant's expense, and the appraisal shall be subject to the Director's approval.

b. The site or landscape plans shall indicate which trees are to be removed. However, the plans do not constitute approval to remove a tree until a separate permit is granted. The property owner or applicant shall obtain a protected tree removal permit, as outlined in section 29.10.0980, for each tree to be removed to satisfy the purpose of this division.

(d) Prior to acceptance of proposed development or subdivision improvements, the developer shall submit to the Director a final tree preservation report prepared by a certified or consulting arborist. This report shall consider all trees that were to remain within the development. The report shall note the trees' health in relation to the initially reported condition of the trees and shall note any changes in the trees' numbers or physical conditions. The applicant will then be responsible for the loss of any tree not previously approved for removal. For protected trees, which were removed, the developer shall pay a penalty in the amount of the appraised value of such tree in addition to replacement requirements contained in section 29.10.0985 of this Code. The applicant shall remain responsible for the health and survival of all trees within the development for a period of five (5) years following acceptance of the public improvements of the development or certificate of occupancy.

(e) Prior to issuance of any demolition, grading or building permit, the applicant or contractor shall submit to the Building Department a written statement and photographs verifying that the required tree protection fence is installed around street trees and protected trees in accordance with the tree preservation report.

(f) If required by the Director and conditioned as part of a discretionary approval, a security guarantee shall be provided to the Town. Prior to the issuance of any permit allowing construction to begin, the applicant shall post cash, bond or other security satisfactory to the Director, in the penal sum of five thousand dollars ($5,000.00) for each tree required to be preserved, or twenty-five thousand dollars ($25,000.00), whichever is less. The cash, bond or other security shall be retained for a period of one (1) year following acceptance of the public improvements for the development and shall be forfeited in an amount equal to five thousand dollars ($5,000.00) per tree as a civil penalty in the event that a tree or trees required to be preserved are removed, destroyed or severely damaged.

(g) An applicant with a proposed development which requires underground utilities shall avoid the installation of said utilities within the dripline of existing trees whenever possible. In the event that this is unavoidable, all trenching shall be done using directional boring, air-spade excavation or by hand, taking extreme caution to avoid damage to the root structure. Work within the dripline of existing trees shall be supervised at all times by a certified or consulting arborist.

(h) It shall be a violation of this division for any property owner or agent of the owner to fail to comply with any development approval condition concerning preservation, protection, and maintenance of any protected tree.

(Ord. No. 2114, §§ I, II, 8-4-03)

Sec. 29.10.1005. Protection of trees during construction.

(a) Protective tree fencing shall specify the following:

(1) Size and materials. Six (6) foot high chain link fencing, mounted on two-inch diameter galvanized iron posts, shall be driven into the ground to a depth of at least two (2) feet at no more than 10-foot spacing. For paving area that will not be demolished and when stipulated in a tree preservation plan, posts may be supported by a concrete base.

(2) Area type to be fenced. Type I: Enclosure with chain link fencing of either the entire dripline area or at the tree protection zone (TPZ), when specified by a certified or consulting arborist. Type II: Enclosure for street trees located in a planter strip: chain link fence around the entire planter strip to the outer branches. Type III: Protection for a tree located in a small planter cutout only (such as downtown): orange plastic fencing shall be wrapped around the trunk from the ground to the first branch with 2-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.

(3) Duration of Type I, II, III fencing. Fencing shall be erected before demolition, grading or construction permits are issued and remain in place until the work is completed. Contractor shall first obtain the approval of the project arborist on record prior to removing a tree protection fence.

(4) Warning sign. Each tree fence shall have prominently displayed an 8.5 x 11-inch sign stating: "Warning—Tree Protection Zone-this fence shall not be removed and is subject to penalty according to Town Code 29.10.1025".

(b) All persons, shall comply with the following precautions:

(1) Prior to the commencement of construction, install the fence at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, around any tree and/or vegetation to be retained which could be affected by the construction and prohibit any storage of construction materials or other materials, equipment cleaning, or parking of vehicles within the TPZ. The dripline shall not be altered in any way so as to increase the encroachment of the construction.

(2) Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the dripline of the tree unless approved by the Director.

(3) Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the dripline of or in drainage channels, swales or areas that may lead to the dripline of a protected tree.

(4) Prohibit the attachment of wires, signs or ropes to any protected tree.

(5) Design utility services and irrigation lines to be located outside of the dripline when feasible.

(6) Retain the services of a certified or consulting arborist who shall serve as the project arborist for periodic monitoring of the project site and the health of those trees to be preserved. The project arborist shall be present whenever activities occur which may pose a potential threat to the health of the trees to be preserved and shall document all site visits.

(7) The Director and project arborist shall be notified of any damage that occurs to a protected tree during construction so that proper treatment may be administered.

(Ord. No. 2114, §§ I, II, 8-4-03)

Sec. 29.10.1010. Pruning and maintenance.

All pruning shall be in accordance with the current version of the International Society of Arboriculture Best Management Practices—Tree Pruning and ANSI A300-Part 1 Tree, Shrub and Other Woody Plant Management—Standard Practices, (Pruning) and any special conditions as determined by the Director. For developments, which require a tree preservation report, a certified or consulting arborist shall be in reasonable charge of all activities involving protected trees, including pruning, cabling and any other work if specified.

(1) Any public utility installing or maintaining any overhead wires or underground pipes or conduits in the vicinity of a protected tree shall obtain permission from the Director before performing any work, including pruning, which may cause injury to a protected tree. (e.g. cable TV/fiber optic trenching, gas, water, sewer trench, etc.).

(2) Pruning for clearance of utility lines and energized conductors shall be performed in compliance with the current version of the American National Standards Institute (ANSI) A300 (Part 1)- Pruning, Section 5.9 Utility Pruning. Using spikes or gaffs when pruning, except where no other alternative is available, is prohibited.

(3) No person shall prune, trim, cut off, or perform any work, on a single occasion or cumulatively, over a three-year period, affecting twenty-five percent or more of the crown of any protected tree without first obtaining a permit pursuant to this division except for pollarding of fruitless mulberry trees (*Morus alba)* or other species approved by the Town Arborist. Applications for a pruning permit shall include photographs indicating where pruning is proposed.

(4) No person shall remove any Heritage tree or large protected tree branch or root through pruning or other method greater than four (4) inches in diameter (12.5" in circumference) without first obtaining a permit pursuant to this division.

(Ord. No. 2114, §§ I, II, 8-4-03)

6.0 Tree Replacement Standards – Los Gatos Town Code

(Excerpted from Town Code 29.10.0985 and 29.10.0987)

(1) Two (2) or more replacement trees, of a species and size designated by the Director, shall be planted on the subject private property. Table 3-1 The Tree Canopy—Replacement Standard shall be used as a basis for this requirement. The person requesting the permit shall pay the cost of purchasing and planting the replacement trees.

(2) If a tree or trees cannot be reasonably planted on the subject property, an in-lieu payment in an amount set forth by the Town Council by resolution shall be paid to the Town Tree Replacement Fund to:

a. Add or replace trees on public property in the vicinity of the subject property; or

b. Add or replace trees or landscaping on other Town property; or

c. Support the Town's urban forestry management program. (Ord. No. 2114, §§ I, II, 8-4-03)

Table 3-1 - Tree Canopy - Replacement Standard

Canopy Size of Removed Tree [1]	(Staff is using 24" box size as the Replacement Standard for SFR Projects as of 2016) [2,4]	Single Family Residential Replacement[3,4]
10 feet or less	Two 24 inch box trees	Two 15 gallon trees
More than 10 feet to 25 feet	Three 24 inch box trees	Three 15 gallon trees
More than 25 feet to 40 feet	Four 24 inch box trees; or Two 36 inch box trees	Four 15 gallon trees
More than 40 feet to 55 feet	Six 24 inch box trees; or Three 36 inch box	Not Available
Greater than 55 feet	Ten 24 inch box trees; or Five 36 inch box trees	Not Available

Notes

[1] To measure an asymmetrical canopy of a tree, the widest measurement shall be used to determine canopy size.

[2] Often, it is not possible to replace a single large, older tree with an equivalent tree(s). In this case, the tree may be replaced with a combination of both the Tree Canopy Replacement Standard and in-lieu payment in an amount set forth by Town Council resolution paid to the Town Tree Replacement Fund.

[3] Single Family Residential Replacement Option is available for developed single family residential lots under 10,000 square feet that are not subject to the Town's Hillside Development Standards and Guidelines. All 15-gallon trees must be planted on-site. Any in-lieu fees for single family residential shall be based on 24" box tree rates as adopted by Town Council.

[4] Replacement Trees shall be approved by the Town Arborist and shall be of a species suited to the available planting location, proximity to structures, overhead clearances, soil type, compatibility with surrounding canopy and other relevant factors. Replacement with native species shall be strongly encouraged. Replacement requirements in the Hillsides shall comply with the Hillside Development Standards and Guidelines Appendix A and Section 29.10.0987 Special Provisions--Hillsides.

Sec. 29.10.0987. Special Provisions—Hillsides

The Town of Los Gatos recognizes its hillsides as an important natural resource and sensitive habitat which is also a key component of the Town's identity, character and charm. In order to maintain and encourage restoration of the hillside environment to its natural state, the Town has established the following special provisions for tree removal and replacement in the hillsides:

(1) All protected trees located 30 or more feet from the primary residence that are removed shall be replaced with native trees listed in *Appendix A Recommended Native Trees for Hillside Areas of the Town of Los Gatos Hillside Development Standards and Guidelines* (HDS&G).

(2) All protected trees located within 30 feet of the primary residence that are removed shall be replaced as follows:

(a) If the removed tree is a native tree listed in Appendix A of the HDS&G, it shall only be replaced with a native tree listed in Appendix A of the HDS&G.

(b) If the removed tree is not listed in Appendix A, it may be replaced with a tree listed in Appendix A, or replaced with another species of tree as approved by the Director.

(c) Replacement trees listed in Appendix A may be planted anywhere on the property.

(d) Replacement trees not listed in Appendix A may only be planted within 30 feet of the primary residence.

(3) Replacement requirements shall comply with the requirements in Table 3-1 Tree Canopy Replacement Standard of this Code.

(4) Property owners should be encouraged to retain dead or declining trees where they do not pose a safety or fire hazard, in order to foster wildlife habitat and the natural renewal of the hillside environment.

7.0 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)

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, Consulting Arborist

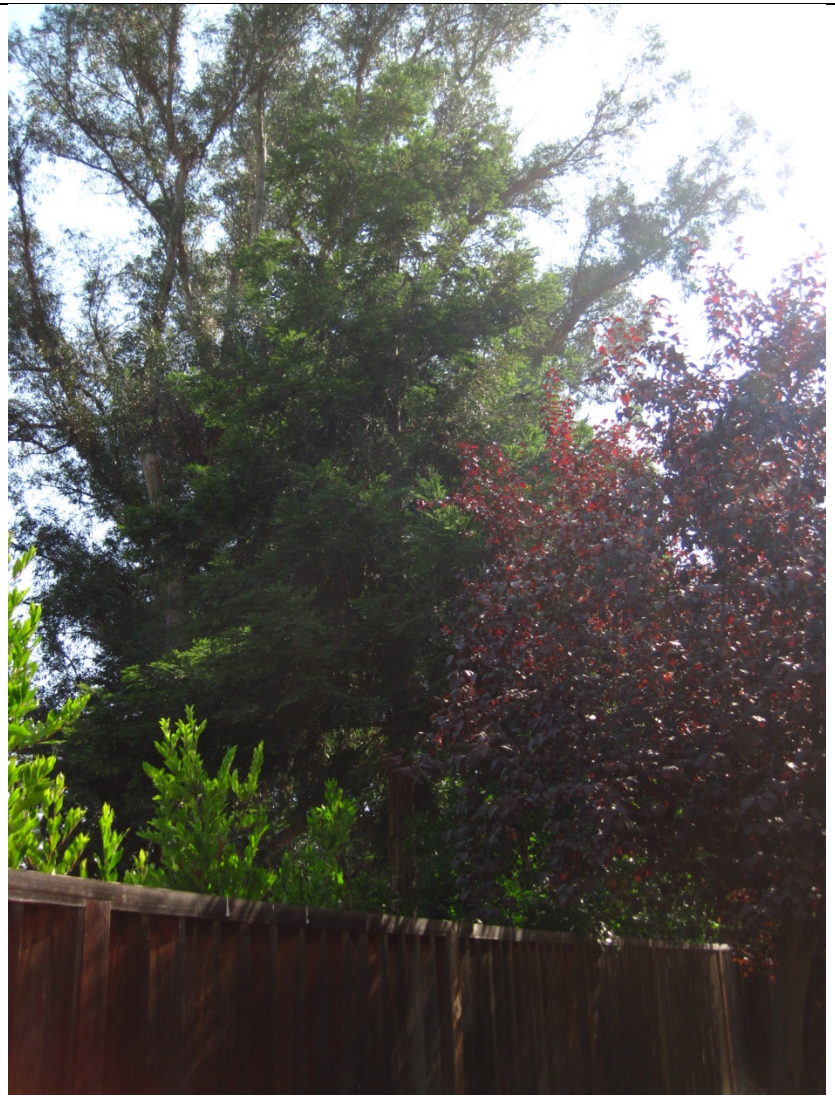
10.0 Digital Images

Below: Digital Images by the CTA archived 9/21/2020:

Tag #	Image	Tag #	Image
41		42	

43		44	

45



(#45 is coast redwood specimen at center of image)

46

46	 This image shows how the palm #46 base elevation is situated at 3 feet above 14300 Lora surface grade elevation. The left half of the image is 14300 Lora, as viewed from the street. The right half of the image is 17525 Wedgewood Avenue (the owner of tree #46), which is built over a 3 foot tall compacted fill soil pad, upon which my field notebook is sitting. It is not clear as to why this property is 3 feet above all other nearby neighbor residential properties, given that their effective window, roof, and fence elevations are all raised by 3 feet because of this fill soil pad. The benefit of this pad is that the tree's lateral roots are located in the pad soil itself, and therefore there is no negative impact to the tree's root system from proposed new 14300 Lora Drive site work such as the joint trench and grassy swale shown on the applicant's plan sheets.	--	(Intentionally blank).

11.0 Tree Data Table

NOTE 1: Fruit and nut trees measuring less than 18" diameter (total of all mainstems), including fruiting olive trees, both on the site and on adjacent neighbor properties are excluded from the CTA's tree studies as "exemption trees" per the Town tree ordinance.

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	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Pests and Disease Presence, and Other Notes	SUGGESTED ROOT PROTECTION FENCE RADIUS (Ft.)	MAINTENANCE AND PROTECTION
41	*Pistacia chinensis*	Chinese pistache	5.2	--	--	5.2	20/20	75/75	75% Good		X	East	East	Tree located 18 feet from property line of the Wedgewood property, and 13 feet from the existing residence siding. Some loss of vigor from soil moisture deficit. Irrigation could increase condition rating drastically if tree were to be regularly irrigated 1x/week with 50 or more gallons of water.	8 to 15 feet offset. Try for min. 10 feet offset radius from trunk.	RPZ, TB, Water 50 to 100 gallons/week or more.
42	*Phoenix canariensis*	Canary Island palm	44	--	--	44	20/25	85/85	85% Exc.		X			10 feet of clear stem. Elevation of fronds is 9 feet above grade, and extends far over the driveway (see image in digital images section), which could cause an airspace clearance problem. May need to tie up fronds during construction to clear airspace for residence construction machinery ingress/egress. Proposed depth of cut for new concrete banding and new baserock base section is 12 inches total cut depth per sheet C-1 side cut detail for driveway. I suggest either pushing out driveway farther from trunk edge, or building driveway up over grade as a NO DIG system using a geogrid underlayment pinned over grade.	0 to 15 feet offset radius from trunk.	RPZ, TB, Water 50 to 100 gallons/week or more. Adjust plans per suggestions noted at left. Tie fronds together to provide better airspace clearance during construction.

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	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Pests and Disease Presence, and Other Notes	SUGGESTED ROOT PROTECTION FENCE RADIUS (Ft.)	MAINTENANCE AND PROTECTION
43	*Acer rubrum* *NEIGHBOR TREE*	Red maple cultivar	Est. 6" to 7"	--	--	Est. 6" to 7"	27/12	55/55	55% Fair		X			Soil moisture deficit is reducing this tree's vigor. The tree is not receiving adequate irrigation water application by the owner. Foliage is visibly burned back due to this issue. Proposed new driveway concrete banding will be roughly 6 feet from trunk edge, which is outside the tree's critical root zone (CRZ). Note that a minimum of roughly 6 feet construction offset is recommended for general maintenance of the tree's lateral woody root system and avoidance of significant root zone damage/loss.	n/a	n/a
44	*Acer rubrum* *NEIGHBOR TREE*	Red maple cultivar	Est. 6" to 7"	--	--	Est. 6" to 7"	27/16	60/55	58% Fair		X			Soil moisture deficit is reducing this tree's vigor. The tree is not receiving adequate irrigation water application by the owner. Foliage is visibly burned back due to this issue. Proposed new driveway concrete banding will be roughly 6 feet from trunk edge, which is outside the tree's critical root zone (CRZ) of 3.5 feet. Note that a minimum of roughly 6 feet construction offset is recommended for general maintenance of the tree's lateral woody root system and avoidance of significant root zone damage/loss.	n/a	n/a

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	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Pests and Disease Presence, and Other Notes	SUGGESTED ROOT PROTECTION FENCE RADIUS (Ft.)	MAINTENANCE AND PROTECTION
45	*Sequoia sempervirens* *NEIGHBOR TREE*	Coast redwood	Est. 8	--	--	Est. 8	35/16	75/70	73% Good		X			Mod to good live twig density. Overhangs the 14300 Lora property a few feet horizontal. Location of tree is 25 feet from proposed residence. Suggest use a chain link root protection zone fence set at 5 to 10 feet offset from property line fence, in order to protect and preserve the root system which had extended into the 14300 Lora property, and does not respect boundary lines. This will also allow for easy periodic irrigation of the tree using a hose within the fenced off root zone area.	8 feet X 25 feet enclosure per the CTA's tree map markup.	RPZ, and Water 1x/week heavy 50 to 100 gallons or more, within the fenced enclosure.

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	Lopsided Canopy (note direction)	Trunk Lean (note direction)	Pests and Disease Presence, and Other Notes	SUGGESTED ROOT PROTECTION FENCE RADIUS (Ft.)	MAINTENANCE AND PROTECTION
46	*Phoenix canariensis* *NEIGHBOR TREE* *OWNER: 17525 WEDGEWOOD AVE.*	Canary Island palm	Est. 40	--	--	Est. 40	40/25	75/75	75% Good		X			Tree trunk edge estimated to be at roughly 4 feet or more offset from the property line wall (not verified). Canopy extends into the airspace of the 14300 Lora Drive property, but will not conflict with any proposed site work because of its height above grade. Given that the 17525 Wedgewood property has been built entirely over a 3 foot height fill soil "pad", the root system of this tree is assumed to be contained mainly within the fill soil pad volume, which means that proposed new work occurring at 14300 Lora Drive will be occurring below the elevation of the lateral root system of this palm, with zero negative impact on the root system of tree #46.	n/a	n/a

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[2]

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 the applicant's proposed site work can be offset to relatively far linear offset distances from a tree's trunk edge, a tree's Tree Conservation Suitability (TCS) rating may be elevated by one rating tier, given that there would be a corresponding reduction in expected future root zone impacts. Thus, specific adjustments to the applicant's proposed plans (as itemized by the CTA in Summary Table 1.0(a) above in this report) could boost the TCS ratings from "Poor" to 'Moderate' or 'Good'.

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)

[2] 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.

12.0 Tree Location & Protection Fence Map Mark-up by the CTA

The CTA marked up the applicant's grading and utility plan sheet C-1 as the background for the tree map markup.

The CTA added the following items to this sheet for reference purposes:

a. Tree tag numbers are noted in black numeric oversized type. Important Note: The numbers on the CTA's map refer to new racetrack shaped professional grade aluminum tags affixed to the trees or on the fencing in front of each tree, by the CTA. They are affixed to the mainstem of each tree at between 4 and 6 feet above grade.

b. Tree plot dots are in some cases added as new, or blackened, for clarity. Most of the CTA's survey trees were not plotted by the applicant's civil surveyor.

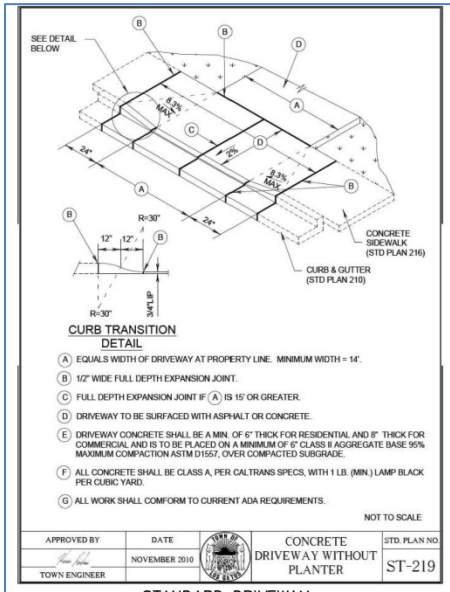
c. Canopy driplines of most of the trees were drawn out by the CTA to approximate scale, using black clouding.

d. Red dashing indicates suggested chain link root protection zone (RPZ) fencing routes, drawn to approximate true scale to indicate optimal placement in terms of root protection and preservation for trees #41, 42, and #45.

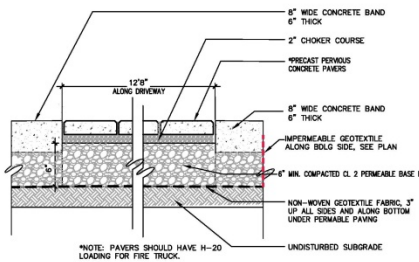
e. Yellow highlight along the south boundary of the map (bottom edge of map markup) indicates the applicant's proposed joint trench (JT) and grassy swale grading location.

f. Yellow highlighting along the driveway indicates the location suggested by the CTA for use of biaxial geogrid or triaxial geogrid as an underlayment that would be pinned down directly over the existing soil at grade, over which the class II baserock base section would be tamped down. This would raise the elevation of the driveway significantly. This is an item for further discussion, since use of robust versions of biaxial or triaxial geogrid can allow for reduction of baserock base section thickness by as much as 50%. The goal here is to avoid all excavation cuts below grade elevation, such that the root system of tree #42 can be retained as-is without damages from the applicant's current proposed plan to excavate 12 inches below grade for baserock base installation and concrete banding installation.

g. Blue highlight indicates areas where 1x/week heavy irrigation would be helpful in increasing tree growth (vigor) by boosting soil moisture in the root zone to field capacity.



1. ALL PUBLIC IMPROVEMENTS SHALL BE MADE ACCORDING TO THE LATEST ADOPTED TOWN STANDARD PLANS, STANDARD SPECIFICATIONS AND ENGINEERING DESIGN STANDARDS. ALL WORK SHALL CONFORM TO THE APPLICABLE TOWN ORDINANCES. THE ADJACENT PUBLIC RIGHT-OF-WAY SHALL BE KEPT CLEAR OF ALL JOB-RELATED MUD, SILT, CONCRETE, DIRT, AND OTHER CONSTRUCTION DEBRIS AT THE END OF THE DAY. DIRT AND DEBRIS SHALL NOT BE WASHED INTO STORM DRAINAGE FACILITIES. THE STORING OF GOODS AND MATERIALS ON THE SIDEWALK AND/OR THE STREET WILL NOT BE ALLOWED UNLESS AN ENCROACHMENT PERMIT IS ISSUED BY THE ENGINEERING DIVISION OF THE PARKS AND PUBLIC WORKS DEPARTMENT. THE OWNER, APPLICANT AND/OR DEVELOPER'S REPRESENTATIVE IN CHARGE SHALL BE AT THE JOB SITE DURING ALL WORKING HOURS. FAILURE TO MAINTAIN THE PUBLIC RIGHT-OF-WAY ACCORDING TO THIS CONDITION MAY RESULT IN THE ISSUANCE OF CORRECTION NOTICES, CITATIONS, OR STOP WORK ORDERS AND THE TOWN PERFORMING THE REQUIRED MAINTENANCE AT THE OWNER, APPLICANT AND/OR DEVELOPER'S EXPENSE.



LEGEND
- PERVIOUS PAVERS
- DOWNSPOUT W/SPLAH BLOCK
- GRASSY SWALE
- JOINT TRENCH
- CUT

PERVIOUS PAVERS SECTION DETAIL
NO SCALE

GRADING NOTES
1. ALL GRADING SHALL ADHERE TO THE RECOMMENDATIONS IN THE PROJECT GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.
2. ALL GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.
3. ALL CUT AND FILL SLOPES AT THE BOUNDARY LINES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT ADJACENT FENCES WILL NOT BE DAMAGED. GRADING SHALL CONFORM AT BOUNDARY LINES.
4. DURING GRADING OPERATIONS, THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES BOTH ON-SITE. STREETS SHALL BE SWEPT PER REQUIREMENTS SPECIFIED IN BLUEPRINT FOR CLEAN BAY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF SAID GRADING QUANTITIES PRIOR TO THE START OF THE GRADING OPERATION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DISTRIBUTING ANY EXCESS MATERIAL OR SUPPLY MATERIAL FOR DEFICIENCIES TO BRING PAVEMENT OR LOTS TO REQUIRED GRADE, CLARIFICATION OF GRADING SHALL BE DONE BY THE ENGINEER.
6. WASTEWATER GENERATED DURING CONSTRUCTION SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM. THIS INCLUDES WASTE FROM PAINTING, SAWCUTTING, CONCRETE WORK, ETC. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO ELIMINATE DISCHARGES TO THE STORM DRAIN SYSTEM AND, IF NECESSARY, PROVIDE AN AREA FOR ON-SITE WASHING ACTIVITIES DURING CONSTRUCTION. MATERIALS WHICH COULD CONTAMINATE STORM RUNOFF SHALL BE STORED IN AREAS WHICH ARE DESIGNED TO PREVENT EXPOSURE TO RAINFALL AND TO NOT ALLOW STORM WATER TO RUN ONTO THE AREA.
7. FLUSHING OF STREET TO REMOVE DIRT AND CONSTRUCTION DEBRIS IS PROHIBITED UNLESS PROPER SEDIMENT CONTROLS ARE USED. AREAS REQUIRING CLEANING SHOULD BE SWEPT.
8. WHERE UNSTABLE OR UNSUITABLE MATERIALS ARE ENCOUNTERED DURING SUBGRADE PREPARATION, THE AREA IN QUESTION SHALL BE OVER EXCAVATED AND REPLACED BY SELECT BACKFILL MATERIAL AS NEEDED.
9. EARTHWORK QUANTITIES IF SHOWN ON THESE PLANS ARE APPROXIMATE ESTIMATED QUANTITIES AND ARE FURNISHED FOR THE CITY INFORMATION ONLY. THE ACTUAL AMOUNT MAY VARY DEPENDING ON COMPACTION, CONSOLIDATION, STRIPPING AND THE CONTRACTOR'S METHOD OF OPERATION.

GROSS SITE AREA	19,854 S.F. (0.456 AC.)
TOTAL DISTURBED AREA	12,346 S.F. (0.283 AC.)
AVERAGE LOT SLOPE	2.8%

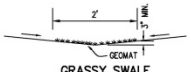
IMPERVOUS AREAS	EXISTING (S.F.)	REMOVED (S.F.)	NEW (S.F.)
HOUSE & GARAGE	1603	0	3301
DRIVEWAY & PARKING	1490	1490	253
PATIOS, WALKS & PADS	308	0	273
TOTAL IMPERVIOUS AREA	3401	1490	3827
NET CHANGE IN IMPERVIOUS AREA	2337 S.F.		

EARTHWORK QUANTITIES	CUT (C.Y.)	FILL (C.Y.)
SITE & BUILDING	54	0
DRIVEWAY	129	0
TOTAL	183	0
EXPORT	183	

NO ADJUSTMENTS HAVE BEEN APPLIED FOR SHRINK OR SWELL.

ABBREVIATIONS

FF	FINISH FLOOR
FG	FINISH GRADE
EG	EXIST GRADE
FL	FLOW LINE
COTO	CLEANOUT TO GRADE
INV	INVERT
(N)	NEW

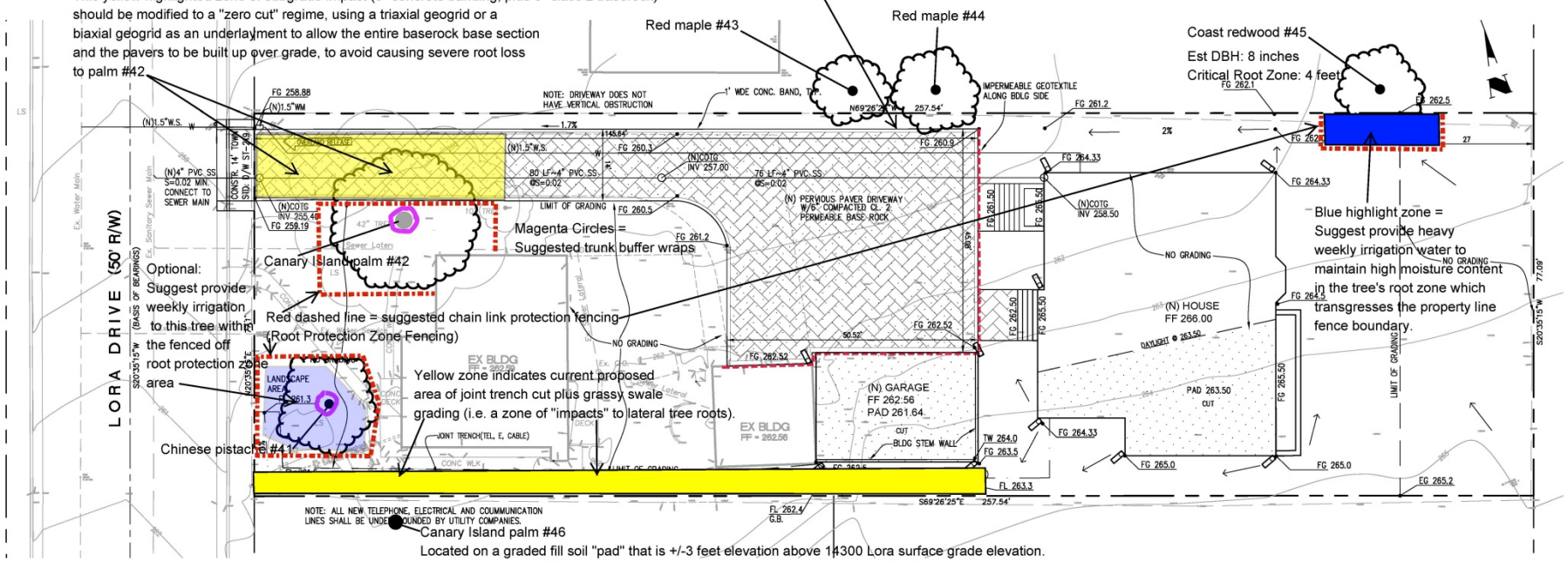


GRASSY SWALE
NO SCALE

STANDARD DRIVEWAY
NO SCALE

This yellow highlighted zone of subgrade impact (6" concrete banding, plus 6" class 2 baserock) should be modified to a "zero cut" regime, using a triaxial geogrid or a biaxial geogrid as an underlayment to allow the entire baserock base section and the pavers to be built up over grade, to avoid causing severe root loss to palm #42.

The deep concrete band cuts for new driveway will occur at approximately 6 linear feet offset from trunk edges of #43 and #44, which is outside the critical root zone (CRZ) of each tree.



13.0 Attached: Appraisal Worksheet by the CTA

This appraisal worksheet 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 useful in helping determine the monetary fines for construction team violations of the Town of Los Gatos tree ordinance, and for other Town Staff purposes. For instance, if a tree is found by an ISA Certified Arborist (e.g. the Project Arborist, or the Contract Town Arborist) to be "50% damaged" in terms of below and/or above-ground losses to structure and/or health (vigor), the fine assessed on the construction team might be calculated as 50% of the tree's appraised dollar value.

Walter Levison
CONSULTING ARBORIST

Valuation Appraisal Worksheet Based on *Guide for Plant Appraisal, 10th Edition* , 2nd Printing (2019)
"Functional Replacement Method / Trunk Formula Technique"
9/25/2020
14300 Lora Drive, Los Gatos, CA

								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
41	Pc	25	0.75	0.75	0.8	76%	5.2	80%	90%	2	2.24	$250.00	$111.61	21.23	$ 2,369	$ 1,292	**$1,290**
42	Pc	23	0.85	0.85	0.85	85%	Replacement Cost = 3x cost calc = 3 X (clear feet X $375 per vert. foot) = 3 x ($375 X 10) = $11,250. $11,250 X condition rating = $11,250 X $9,562. $9,562 X functional limitations = $9,562 X .75 = $7,171. Rounded off = $7,200.										**$7,200**
43	Ar	3	0.55	0.55	0.65	57%	7	40%	90%	4	4.75	$250.00	$52.63	38.47	$ 2,024	$ 412	**$410**
44	Ar	3	0.6	0.55	0.75	59%	7	40%	90%	4	4.75	$250.00	$52.63	38.47	$ 2,024	$ 428	**$430**
45	Ss	34	0.75	0.7	0.75	72%	8	60%	90%	4	4.75	$250.00	$52.63	50.24	$ 2,644	$ 1,021	**$1,020**
46	Pc	23	0.75	0.75	0.8	76%	Replacement Cost = 3x cost calc = 3 X (clear feet X $375 per vert. foot) = 3 x ($375 X 30) = $33,750. $33,750 X condition rating = $33,750 X .75 = $25,312. $25,312 X functional limitations = $25,312 X .80 = $20,250. Rounded off = $20,300.										**$20,300**

Walter Levison
CONSULTING ARBORIST

Valuation Appraisal Worksheet Based on *Guide for Plant Appraisal, 10th Edition* , 2nd Printing (2019)
"Functional Replacement Method / Trunk Formula Technique"
9/25/2020
14300 Lora Drive, Los Gatos, CA

								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%

2. MULTI STEM TREES: For trees with multiple mainstems, the total of all mainstem cross sectional areas was used as the "trunk area" calculation. For trees with mainstems larger than 30 inches diameter each, an "adjusted trunk area" or "ATA" value is used, from a table of values in the older 9th edition of the *Guide for Plant Appraisal.* The ATA value is smaller than the actual trunk diameter, and brings the tree's appraised dollar value down to a more "reasonable" level.

3. NEIGHBOR TREES: For neighbor-owned trees that were not accessible by the CTA, the trunk diameter was estimated from a distance to the best of the CTA's ability.

4. 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 CTA's arborist report tree data table. The CTA 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 | **$30,650**

This Page
Intentionally
Left Blank