

Appendix C

Tree Protection and Preservation Plan



4265 El Camino Real Hotel Project

Tree Protection and Preservation Plan

prepared by

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1 Introduction

The City of Palo Alto Municipal Code (PAMC) Title 8 protects specific trees on public or private property from removal or disfigurement. The City has prepared the Tree Technical Manual (TTM) to establish procedures and standards for the preservation of trees. Per the PMAC and TTM, a Tree Protection and Preservation Plan (TPPP) must be prepared for a project with “Regulated Trees”, which include:

1. Protected Trees: All coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), and coast redwood (*Sequoia sempervirens*) trees,
2. Street Trees: All trees growing within the publicly-owned street right-of-way, and
3. Designated Trees: All trees, when associated with a development project that are specifically designated by the City of Palo Alto to be saved and protected on a property that is subject to discretionary review.

This Tree Protection and Preservation Plan was prepared to outline the measures to protect and preserve trees for the 4265 El Camino Hotel Project. This report also documents the results of a tree health assessment survey and will serve to update the health and condition of trees assessed and inventoried in the initial arborist report, completed by Kielty Arborist Services on April 27, 2017. It also presents the results of a focused root mapping survey conducted in June of 2018.

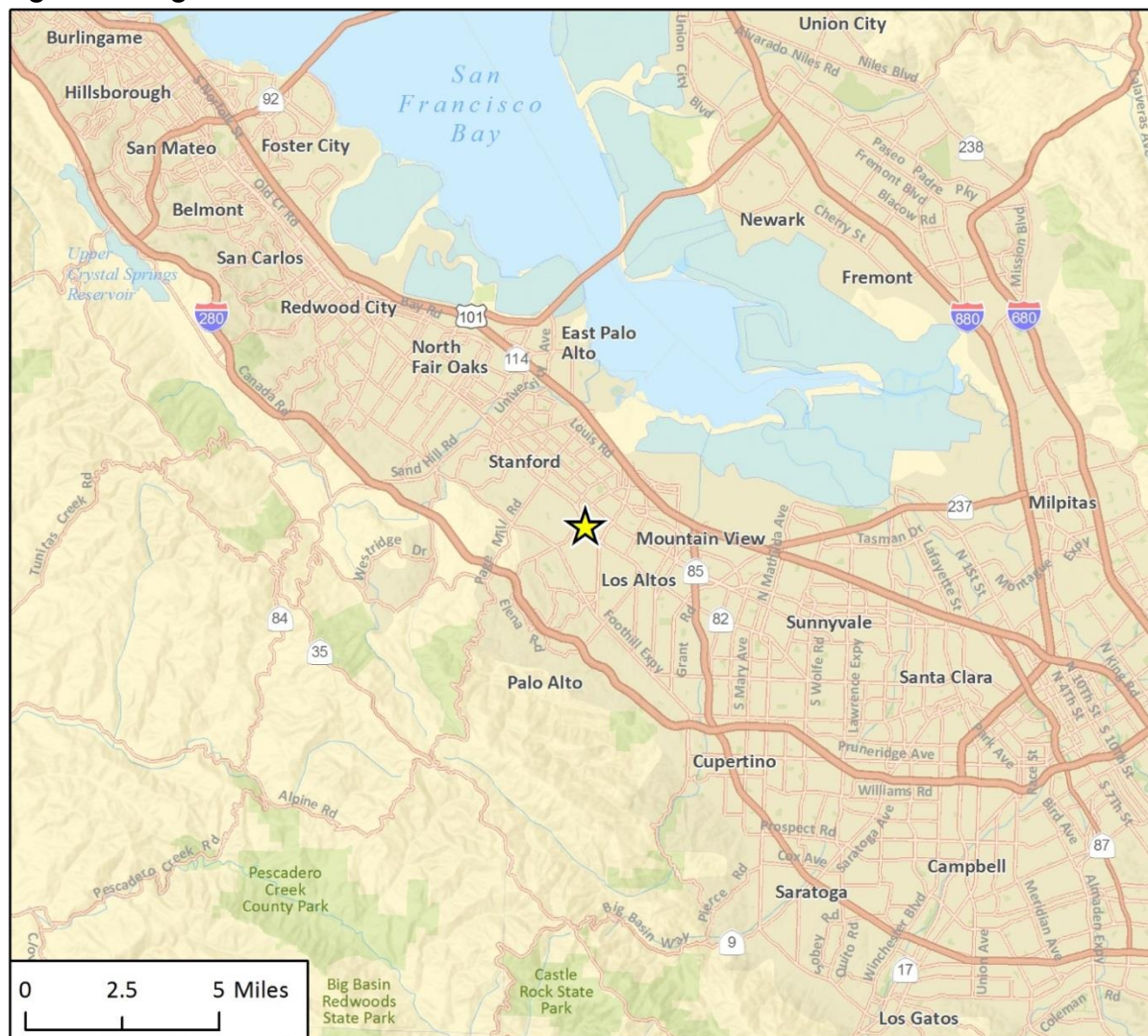
1.1 Project Location and Description

The project site is located at 4256 El Camino Real in the City of Palo Alto (City), in Santa Clara County, California. The project site encompasses 0.60 acre on one assessor’s parcel (Assessor’s Parcel Number 167-08-042). The site is located along El Camino Real, approximately 0.25 mile southeast of the intersection of El Camino Real, Arastradero Road, and West Charleston Road.

Figure 1 shows the regional location of the project site. Figure 2 shows an aerial view of the project site and immediate surroundings.

The proposed project would involve demolition of the existing restaurant building followed by construction of a five-story hotel building. The hotel would include 100 guest rooms, underground parking with mechanical lifts, and a large exterior courtyard. Amenities would include a fitness room, business center, restaurant/café, and bar. The total gross size of the project would be 51,300 square feet. The building roof height would be 50 feet, with a mechanical screen extending no more than 12 feet above the roof. The rear of the building would include an outdoor patio area with a pedestrian path, seating, a lounge area, and a gathering space with a fire pit for use by hotel guests. Parking would include 85 parking stalls and valet aisle parking that could accommodate 17 vehicles located in a two-level subterranean garage, accessible via a driveway from El Camino Real. Project plans are presented in Appendix A.

Figure 1 - Regional Location



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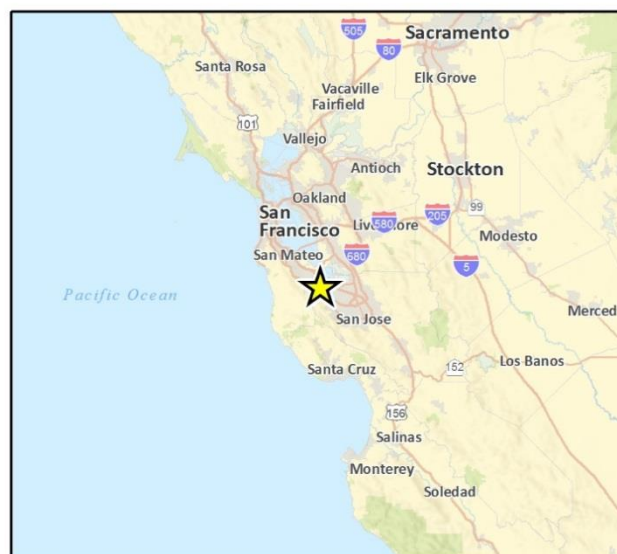


Figure 2 - Project Location



2 Methodology

2.1 Background/Initial Survey

An initial arborist survey was conducted for the project site on April 27, 2018 by Kielty Arborist Services for HXH Property LLC. The survey included an inspection of each tree to determine the diameter at breast height (dbh; measured at four and one-half feet above natural grade), the canopy spread, and height of each tree. The trees were also given a condition rating for form and vitality. The results of this survey were documented in an arborist report dated April 27, 2017 and subsequently revised October 9, 2017 and March 12, 2018 (Appendix B).

2.2 Follow-up Survey

To confirm the conditions from the initial arborist report, a follow-up tree inventory and health assessment survey was conducted for the project. The follow-up survey was conducted on June 25, 2018 by Rincon International Society of Arboriculture (ISA) Certified Arborist Kyle Weichert (WE-12113A). During the survey, all trees located within the project site were evaluated on an individual basis. The location and dripline of each tree within the project site was recorded using a Trimble Global Positioning System (GPS) unit with sub-meter accuracy. The location of trees outside the project site was recorded using the rangefinder function of the Trimble GPS unit to maximum extent feasible as well as the locations of any overhanging dripline.

For each tree in the project site, Mr. Weichert gathered the following information: scientific and common name, evaluation of the physical structure, dbh using an English unit diameter tape or caliper, updated the estimated tree height and canopy spread of each tree and assessed each tree for health and condition. The health and condition assessment considered evidence of disease, insect pests, structure, damage and vigor, with results incorporated into the overall health rating based on archetype trees of the same species with criteria described in Table 1 (Overall Condition Rating Criteria), below.

Table 1 Overall Condition Rating Criteria

Rating	Structure
Excellent	In addition to attributes of a 'good' rating, the tree exhibits a well-developed root flare and a balanced canopy. Provides shading or wildlife habitat and is aesthetically pleasing.
Good	Trunk is well developed with well attached limbs and branches; some flaws exist but are hardly visible. Good foliage cover and density, annual shoot growth above average. Provides shading or wildlife habitat and has minor aesthetic flaws.
Fair	Flaw in trunk, limb and branch development are minimal and are typical of this species and geographic region. Minimal visual damage from existing insect or disease, average foliage cover and annual growth.
Poor	Limbs or branches are poorly attached or developed. Canopy is not symmetrical. Trunk has lean. Branches or trunk have physical contact with the ground. May exhibit fire damage, responses to external encroachment/obstructions or existing insect/disease damage.
Dead	Trunk, limbs or branches have extensive visible decay or are broken. Canopy leaves are non-seasonally absent or uniformly brown throughout, with no evidence of new growth.

Previously mapped and numbered trees were given an identification number consistent with the March 2018 arborist report. Some additional ornamental species and additional trees were given a new unique tree identification number. Per recommendations from the City, the locations of trees on neighboring sites were estimated, and the measurements from the initial arborist report (Kielty Arborist Services, 2018) were used to determine the size of the trees on neighboring sites.

2.3 Focused Root Mapping Survey

A focused survey for below-ground roots was conducted on June 18, 2018 by Arborist OnSite, Horticultural Consulting, Inc. This survey utilized Ground-Penetrating Radar (GPR) to determine the location and depth of below-ground roots within separate 16 scans. The methodology and results of this survey are summarized in this report; for a detailed discussion and explanation of root mapping results see the attached ISA Certified Arborist Report (Arborist OnSite 2018; Appendix C).

3 Results and Impacts

3.1 Follow-up Survey Results

A total of 48 trees were assessed during the follow-up arborist survey. Of these, 25 are located within the project site, five are street trees along El Camino Real, and 18 are located on a neighboring property. The tree species include:

- 22 coast redwood (*Sequoia sempervirens*),
- 10 mulberry (*Morus* sp.),
- 6 tree of heaven (*Ailanthus altissima*),
- 5 London plane (*Platanus x acerifolia*),
- 2 deodar cedar (*Cedrus deodara*),
- 1 avocado (*Persea americana*),
- 1 stonefruit [peach] (*Prunus* sp.), and
- 1 podocarpus (hedge) (*Podocarpus* sp.)

Generally, the trees in the project site are located within a landscape planter that runs the perimeter of the existing parking lot. Most of the trees onsite are ornamentals or fruit-bearing trees. Two large and prominent deodar cedars are located in a planter near the southern boundary of the project site. A podocarpus hedge borders the north face of the existing restaurant, and several tree of heaven individuals are located in a planter along the south face. Neighboring coast redwood trees overhang the project site along the south, west, and north boundaries.

Four of the coast redwood trees (trees #13, 14, 15, and 16) are located within the project site in the northwest and southwest corners. The five London plane trees (trees #1, 2, 3, 4, and 5) are City of Palo Alto street trees located along El Camino Real immediately east of the project site. Coast redwood trees and street trees are considered Protected by the City of Palo Alto and are subject to protective measures, outlined in the Section 4 below. Table 2 below provides the updated data collected for all trees. Figure 3 depicts the locations of the surveyed trees.

The results of the rooting mapping survey are presented in Appendix C.

3.2 Proposed Project Impacts

The proposed project would result in the removal of all trees located in the project site, with exception of the four protected coast redwood trees (Figure 4). Three London plane trees located immediately in front and north of the existing restaurant (trees #2, 3, and 4) are proposed for removal or relocation to an alternate location along the street along the eastern property boundary or removal entirely to accommodate ingress and egress for the proposed project. One additional London plane tree is proposed for removal (tree #5). One London plane tree located south of the project (tree #1) will be retained.

Table 2 Tree Inventory

Tree #	Species	Tree Location	Tree Height (feet)	Canopy Spread (feet)	DBH (inches)	TPZ (feet; if applicable)	Overall Health	Protected?	Project Impact	Notes
1	London Plane (<i>Platanus x acerifolia</i>)	Street	14	10	3	2.5	Fair	Yes		
2	London Plane (<i>Platanus x acerifolia</i>)	Street	35	36	11		Fair	Yes	Removal	
3	London Plane (<i>Platanus x acerifolia</i>)	Street	35	32	13.5		Fair	Yes	Removal	
4	London Plane (<i>Platanus x acerifolia</i>)	Street	35	40	13.5		Good	Yes	Removal	
5	London Plane (<i>Platanus x acerifolia</i>)	Street	30	25	11		Good	Yes	Removal	
6	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	45*	30*	26.7*	22.25	Fair	-		
7	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	35*	20*	14.3*	11.92	Fair	-		
8	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	30*	17.2*	14.33	Fair			
9	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	30*	20.2*	16.83	Fair			
10	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	25*	22.4*	18.67	Fair			
11	Deodar cedar (<i>Cedrus deodara</i>)	Project Site	40	38	22.5		Fair		Removal	
12	Deodar cedar (<i>Cedrus deodara</i>)	Project Site	36	30	19		Fair		Removal	
13	Coast redwood (<i>Sequoia sempervirens</i>)	Project Site	55	20	23.5	19.58	Fair	Yes		
14	Coast redwood (<i>Sequoia sempervirens</i>)	Project Site	60	25	24.5	20.42	Fair	Yes		
15	Coast redwood (<i>Sequoia sempervirens</i>)	Project Site	55	25	30.5	25.42	Fair	Yes		
16	Coast redwood (<i>Sequoia sempervirens</i>)	Project Site	55	28	29.5	24.58	Fair	Yes		
17	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	45	20	16.5*	13.75	Fair			
18	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	50	23	17.6*	14.67	Fair			
19	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40	15	9.3*	7.75	Fair			
20	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	45	18	15.5*	12.92	Fair			
21	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	12.1*	10.08	Fair			
22	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	9.9*	8.25	Fair			

City of Palo Alto, California
4265 El Camino Real Hotel Project

Tree #	Species	Tree Location	Tree Height (feet)	Canopy Spread (feet)	DBH (inches)	TPZ (feet; if applicable)	Overall Health	Protected?	Project Impact	Notes
23	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	17.1*	14.25	Fair			
24	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	14.1*	11.75	Fair			
25	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	15.8*	13.17	Fair			
26	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	18.3*	15.25	Fair			
27	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	18*	15.00	Fair			
28	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	40*	20*	17.6*	14.67	Fair			
29	Coast redwood (<i>Sequoia sempervirens</i>)	Neighboring	38*	18*	15**	12.50	Fair			
30	Mulberry (<i>Morus</i> sp.)	Project Site	22	18	7		Good		Removal	
31	Mulberry (<i>Morus</i> sp.)	Project Site	25	35	10		Good		Removal	
32	Tree of heaven (<i>Ailanthus altissima</i>)	Project Site	8	3	1.5		Good		Removal	
33	Mulberry (<i>Morus</i> sp.)	Project Site	12	8	2.5, 2		Good		Removal	
34	Mulberry (<i>Morus</i> sp.)	Project Site	10	6	2.25		Good		Removal	
35	Mulberry (<i>Morus</i> sp.)	Project Site	10	6	2.25		Good		Removal	
36	Prunus sp.	Project Site	10	10	5		Good		Removal	
37	Avocado (<i>Persea americana</i>)	Project Site	14	10	2.5		Fair		Removal	
38	Mulberry (<i>Morus</i> sp.)	Project Site	18	30	7.5		Good		Removal	
39	Mulberry (<i>Morus</i> sp.)	Project Site	28	33	9		Good		Removal	
40	Mulberry (<i>Morus</i> sp.)	Project Site	24	35	7.5		Good		Removal	
41	Mulberry (<i>Morus</i> sp.)	Project Site	13	20	7.5		Fair		Removal	
42	Mulberry (<i>Morus</i> sp.)	Project Site	15	25	8		Good		Removal	
43	Tree of heaven (<i>Ailanthus altissima</i>)	Project Site	30	10	4		Fair		Removal	Small spindly sapling under deodar cedars
44	Tree of heaven (<i>Ailanthus altissima</i>)	Project Site	12	8	1, 1.5		Fair		Removal	Small spindly sapling along south face of restaurant

Tree #	Species	Tree Location	Tree Height (feet)	Canopy Spread (feet)	DBH (inches)	TPZ (feet; if applicable)	Overall Health	Protected?	Project Impact	Notes
45	Tree of heaven (<i>Ailanthus altissima</i>)	Project Site	12	5	2.5		Fair		Removal	Small spindly sapling along south face of restaurant
46	Tree of heaven (<i>Ailanthus altissima</i>)	Project Site	20	15	3, 4, 2, 0.5		Fair		Removal	Small spindly sapling along south face of restaurant
47	Tree of heaven (<i>Ailanthus altissima</i>)	Project Site	25	6	3, 3		Fair		Removal	Small spindly sapling along south face of restaurant
48	Podocarpus (<i>Podocarpus</i> sp.)	Project Site	8	12	--		Fair		Removal	Hedge along north face of existing restaurant

* = from initial arborist report (Kielty Arborist Services, rev March 2018); locations estimated

** = estimated

Figure 3 - Tree Locations



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Fig 3 Trees

Figure 4 - Tree Protection Zones of Trees to be Protected



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Fig 4 Protected Trees

Based on the project plans dated June 26, 2018, three of the four protected coast redwood trees within the project area (trees #13, 14, and 15) and an additional four protected coast redwood trees on neighboring properties (trees #6, 17, 18, and 23) would be impacted by the proposed project. These trees have a portion of their Tree Protection Zones (TPZ; defined as a radius of ten times the trunk diameter at breast height, measured in feet) within the project Shoring/Disturbed Area Boundary (Figure 5). The percentage of the TPZ impacted ranges between 0.1 percent and 4.30 percent. Table 3 below summarizes these impacts. Project-related excavation is not expected to occur within ten feet of the protected coast redwood trees. As such, structural roots of four inches or greater are not expected to be impacted.

Table 3 Impacts to Tree Protection Zones

Tree #	TPZ Area (ac)	Impact Area within TPZ (ac)	Percentage of TPZ Impacted
23	0.02	0.0003	2.11%
17	0.01	0.0003	1.98%
18	0.02	0.00002	0.10%
6	0.04	0.0003	0.72%
13	0.03	0.0004	1.42%
14	0.03	0.0013	4.3%
15	0.05	0.0010	2.15%

Figure 5 – Impacts to Tree Protection Zones



Fig 5 Tree Impacts

4 Tree Protection and Preservation Plan

This TPPP has been prepared in accordance with the guidelines in the TTM and outlines the measures and conditions for the proposed project to reduce impacts to protected trees to a less than significant level. This plan also identifies construction guidelines to be followed through all phases of construction of the project.

4.1 Preconstruction Requirements

The following measures will be incorporated by the project as required in the TTM.

Site Plan - The trunk locations and driplines of all trees proposed to be preserved have been plotted on the attached site plan. Project improvement plans will display these locations on the plan. For protected and street trees, the plans will accurately show the trunk diameter, dripline, and tree protection zones as detailed in the City's Tree Technical Manual.

Protective Fencing - Fenced enclosures will be erected around trees to be protected (trees # 13, 14, 15, and 16). Fencing will consist of six-foot tall, metal chain-link material supported by metal poles two-inches in diameter or greater. The poles will be pounded into the ground to a depth of no less than two feet and spaced no more than ten feet apart. The fencing will be installed at the boundary of the TPZ.

Tree fencing will be erected before demolition, grading or construction begins and remain in place until final inspection of the project permit, except for work specifically required in the approved plans in which case the project arborist or City Arborist (in the case of street trees) will be consulted.

The protective fencing will include a warning sign prominently displayed on each fence. The sign will be a minimum of 8.5 x 11-inches and clearly state: "WARNING - Tree Protection Zone - This fence will not be removed until completion of project construction."

Verification of Tree Protection - Prior to commencement of construction, the project arborist or contractor will verify, in writing, that all preconstruction conditions have been met (tree fencing, erosion control, pruning, etc.) and are in place.

Preconstruction Meeting - The demolition, grading and underground contractors, construction superintendent and other pertinent personnel will meet with the project arborist at the site prior to beginning work to review procedures, tree protection measures and to establish haul routes, staging areas, contacts, watering, etc.

Areas Outside Protective Fencing - Several neighboring protected coast redwood trees have canopies/driplines that reach over the project boundary into the project site (trees # 6-10 and 17-28). Prior to construction, any areas under protected trees' driplines that occur outside the protective fencing area will be mulched with four to six inches of mulch and covered with plywood to reduce compaction. Mulch installation will leave the trunk clear to avoid excess moisture at the trunk. Mulch material will be two-inch unpainted, untreated wood chip or equivalent. The mulch may be removed to install landscaping.

Tree Removal - Protected trees will not be removed by the project, with exception of four London plane Street Trees. Removal of any trees that extend into the branches or roots of any trees to be protected will not be conducted by demolition or construction personnel, grading, or other heavy equipment. An arborist certified to the standard of the City or tree worker will remove the tree carefully in a manner that causes no damage above or below ground to trees that remain.

Removal of stumps with roots entangled with those of protected trees to remain will have their roots severed prior to extracting the stump to avoid disturbing roots of retained trees. For all other stumps, removal will include grinding of stump and roots to a minimum depth of 24 inches. In sidewalk or small planter areas to be replanted with a new tree, the entire stump will be removed and the planting pit dug to a depth of 30 inches. If dug below 30 inches, compact the backfill to prevent settling. Large surface roots three feet from the outside circumference will be removed, including the spoils and backfilled with City approved topsoil to grade, and the area tamped to settle the soil.

Suspended Pavement System for Street Trees – A suspended pavement system will be provided for street trees. Adequate rootable soil volume areas will be provided public trees. The volume of rootable soil to be provided per public tree will be based on the size of the tree at maturity as follows:

- 400 cubic feet of rootable soil volume will be available per small tree,
- 800 cubic feet per medium-sized tree and,
- 1200 cubic feet per large-sized tree.

4.2 During Construction Requirements

Compaction - To avoid soil compaction, all vehicles will remain on paved surfaces to the maximum extent feasible and all parking will occur on paved surfaces. Staging will occur on existing pavement. If vehicles must be operated in non-paved areas near trees, mulch and plywood would be installed as detailed above.

Activities Within Tree Protection Zones - No equipment, building materials, refuse, excavated soils, or poisonous materials will be stored, cleaned, or deposited within a TPZ. Protected trees will not be used as wench supports, anchorage, or sign posts. Tree roots within the TPZ will not be cut for utility trenching, foundation digging, placement of curbs and trenches, and other miscellaneous excavation without prior approval from the City Arborist.

If trenching, excavation, or boring is necessary within a TPZ, the contractor will notify the Applicant's project arborist a minimum of 24 hours in advance of the activity in the TPZ. Once excavation within the TPZ starts, roots that are encountered will be cut to sound wood and repaired. Roots two inches and greater will remain injury-free. Any approved excavation, demolition or extraction of material will be performed with equipment sitting outside the TPZ. All excavation within the TPZ will be done by hand digging, hydraulic or pneumatic air excavation technology. Excavation within the TPZ will not occur during hot, dry weather to the maximum extent feasible.

For excavation or trenching for drainage, utilities, irrigation lines, etc., construction will tunnel under any roots two inches in diameter and greater. Prior to excavation for foundation/footings/walls, grading or trenching within the TPZ, roots will first be severed cleanly one foot outside the TPZ and to the depth of the future excavation. The trench will then be hand dug and roots pruned with a saw, sawzall, narrow trencher with sharp blades, or other approved root pruning equipment.

Backhoes, steel-tread tractors, or any heavy vehicles will not be used within the TPZ without prior approval by the City Arborist. If allowed, a protective root buffer would be established, consisting of a base course of tree chips spread over the root area to a minimum six-inch depth, layered by 3/4-inch quarry gravel to stabilize, with 3/4-inch plywood on top. This buffer within the TPZ would be maintained throughout the entire construction process.

If injurious activity or interference with roots greater than two-inches will occur within the TPZ, plans will specify a design of special foundation, footing, walls, concrete slab or pavement designs subject to City Arborist approval. Discontinuous foundations such as concrete pier and structural grade beam will maintain natural grade to minimize root loss and allow the tree to use the existing soil. Basement excavations will be designed outside the TPZ of all protected and designated trees and will not be harmful to other mature or neighboring property trees.

Injury Mitigation - A mitigation program has not been prepared for the project as drought stress, dust accumulation, or soil compaction to protected trees is not expected.

Damage - Any inadvertent damage to protected trees will be reported to the Project Arborist and City within six hours. Any mechanical or chemical injury, as defined in the TTM, to branches, trunk, or roots over two inches in diameter will be reported in monthly inspection reports (see below). If injury to a protect tree occurs, the following mitigation and damage control measures will apply, as required by the TTM.

1. Root injury: If trenches are cut and tree roots 2 inches or larger are encountered, they must be cleanly cut back to a sound wood lateral root. The end of the root shall be covered with either a plastic bag and secured with tape or rubber band, or be coated with latex paint. All exposed root areas within the TPZ shall be backfilled or covered within one hour. Exposed roots may be kept from drying out by temporarily covering the roots and draping layered burlap or carpeting over the upper 3-feet of trench walls. The materials must be kept wet until backfilled to reduce evaporation from the trench walls.
2. Bark or trunk wounding: Current bark tracing and treatment methods shall be performed by a qualified tree care specialist within two days.
3. Scaffold branch or leaf canopy injury: Remove broken or torn branches back to an appropriate branch capable of resuming terminal growth within five days. If leaves are heat-scorched from equipment exhaust pipes, consult the project arborist within 6 hours.

Offsetting Root Impacts – If project excavation impacts roots of protected trees, the impacts will be documented using photographs and measurements with the consultation of the project arborist. If roots are impacted, offsetting treatments for root loss will be proposed based on the results of a soil test and may include adjustments to watering, soil nutrients, soil organic content, or other recommendations.

Inspections - The Project Arborist will conduct regular inspections of the trees within the project site at least once during the process of rough grading and monthly thereafter until project construction is complete, as directed in the TTM. After each inspection, the project arborist will submit a report to the City during the first week of each calendar month. The report will document the condition of the trees, the condition of the protective measures onsite. If there are any changes to the plans or protective measures, the Project Arborist will contact the City immediately.

The Project Arborist will also conduct an inspection on an as-needed basis if any special activity is planned and approved within the TPZ, or there are abrupt changes in tree health noted by construction staff.

Imported Soil - All imported soils will be tested and the results provided to the City for approval before import. Import soil shall be amended with compost per City standards in place of other soil amendments. Street trees require an automatic irrigation/bubbler system and may require tree grates. Tree well openings on El Camino Real frontage will be 4' x 8" minimum per ECR Master Plan, Tree Planting Practices Sec.5.4.2.

4.3 Maintenance

Maintenance of all protected trees within the project site will be conducted in general accordance with the TTM.

Irrigation - Normal irrigation will be maintained on the site at all times. During the warm season (April through November), additional irrigation may be applied up to twice per month as recommended by the project arborist. Adjustments to irrigation regime may be made by the project arborist as needed.

5 References

Arborist OnSite – Horticultural Consulting, Inc. 2018. ISA Certified Arborist Report – Caterina Hotel 4256 El Camino Real, Palo Alto, California. June 25.

City of Palo Alto. Palo Alto Municipal Code. Available online at:
<https://www.cityofpaloalto.org/gov/depts/clk/municode.asp>

City of Palo Alto Department of Planning and Community Environment. 2001. Tree Technical Manual. First Edition. June.

Kielty Arborist Service. 2017. Arborist Letter Report for 4256 El Camino Real, Palo Alto, California. Revised October 9, 2017, March 12, 2017.

Fite K., Smiley ET. 2008. Best Management Practices (BMP) - Managing Trees During Construction. International Society of Arboricultural. 2010. Arborist Certification Study Guide.

Matheny and Clark. 1998. Trees and Development: A Technical Guide to Preservation of Trees During Land Development.

USDA Forest Service. 1990. Agricultural Handbook 654, Silvics of North America, Vol. 1, Conifers.

Appendix A

Project Plans



STUDIO
T SQUARE

: Architecture
: Planning
: Urban Design

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: Oakland, California 94607
: (510) 451 - 2850

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The Caterina Hotel

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HXH Property LLC

2223 Bayshore Road, Suite 200
Palo Alto, CA 94303

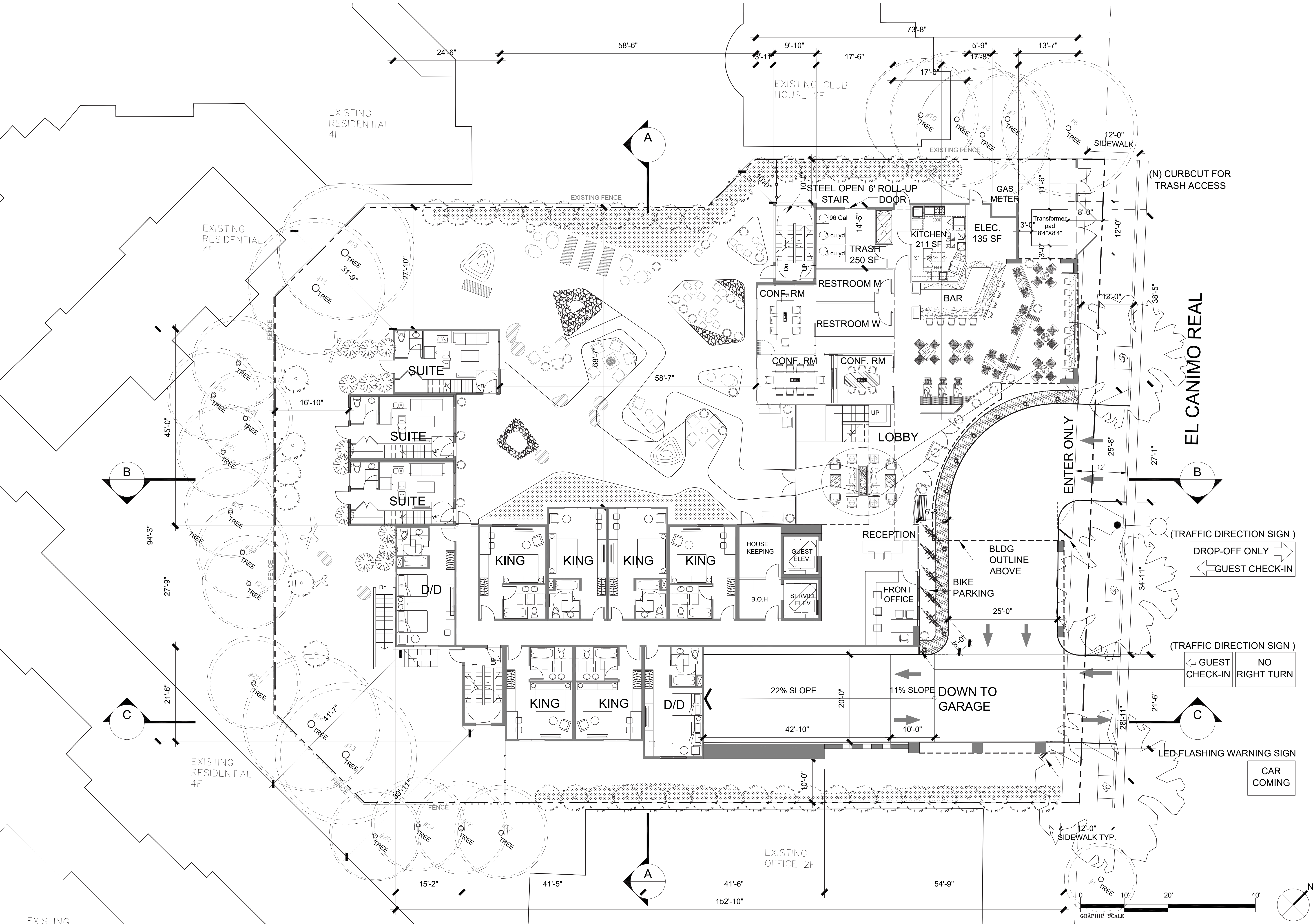
Sheet Title:

Floor Plan -
Site Plan

Job No. 17001
Date: 06/26/2018
Scale:
Drawn By:

Sheet No:

A-3.0



EXISTING

Appendix B

Arborist Report

Kielty Arborist Services

Certified Arborist WE#0476A

P.O. Box 6187

San Mateo, CA 94403

650-515-9783

April 27, 2017 revised October 9, 2017, March 12, 2018

Catherine Huang Huang,
HXH Property LLC
2225 E Bayshore Rd Ste 2000
Palo Alto, CA 94303

Site: 4256 El Camino Real, Palo Alto, CA

Dear Ms. Hauang,

As requested on Monday, April 24, 2017, I visited the above site to inspect and comment on the trees. New construction is planned for this site and your concern as to the future health and safety of the trees as well as the neighboring trees has prompted this visit. Civil plan C-3.0 dated December 21, 2018 was reviewed for the revision of this report.

Method:

All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on a site plan provided by you. The trees were then measured for diameter at 54 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. The trees' condition rating is based on 50 percent vitality and 50 percent form, using the following scale.

1 - 29 Very Poor
30 - 49 Poor
50 - 69 Fair
70 - 89 Good
90 - 100 Excellent

The height of the tree was measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.

Received

MAR 19 2018

Department of Planning
& Community Environment

4256 El Camino/4/27/17

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Survey:

Tree#	Species	DBH	CON	HT/SP	Comments
1	London plane (<i>Platanus acerifolia</i>)	2"	70	15/15	Good vigor, fair form, street tree.

2X	London plane (<i>Platanus acerifolia</i>)	13.2	75	30/35	Good vigor, fair form, street tree.
3X crown	London plane (<i>Platanus acerifolia</i>)	13.1	70	35/30	Good vigor, good form, poor live ratio.
4X codominant at	London plane (<i>Platanus acerifolia</i>)	10.6	55	35/30	Good vigor, poor-fair form, 12 feet.
5X 20	London plane (<i>Platanus acerifolia</i>)	10.7	65	30/35	Good vigor, fair form, codominant at
6*	Redwood (<i>Sequoia sempervirens</i>)	26.7	65	45/30	Fair vigor, fair form, one of five. (5.5 feet from property line.)
7*	Redwood (<i>Sequoia sempervirens</i>)	14.3	65	35/20	Fair vigor, fair form, one of five. (4.0 feet from property line.)
8*	Redwood (<i>Sequoia sempervirens</i>)	17.2	60	40/30	Fair vigor, fair form, one of five. (7.5 feet from property line.)
9*	Redwood (<i>Sequoia sempervirens</i>)	20.2	60	40/30	Fair vigor, fair form, one of five. (4.0 feet from property line.)
10*	Redwood (<i>Sequoia sempervirens</i>)	22.4	65	40/25	Fair vigor, fair form, one of five. (8 feet from property line.)
11X limbs.	Deodar cedar (<i>Cedrus deodara</i>)	21.8	55	45/40	Good vigor, fair form, heavy lateral
12X limbs.	Deodar cedar (<i>Cedrus deodara</i>)	18.3	55	45/40	Good vigor, fair form, heavy lateral
13	Redwood (<i>Sequoia sempervirens</i>)	23.1	60	55/30	Fair vigor, fair form, in south corner.
14	Redwood (<i>Sequoia sempervirens</i>)	24.1	60	55/30	Fair vigor, fair form, in south corner.

Tree#	Species	DBH	CON	HT/SP	Comments
15	Redwood (<i>Sequoia sempervirens</i>)	29.9	65	60/30	Fair vigor, fair form, in west corner.
16	Redwood (<i>Sequoia sempervirens</i>)	29.2	65	60/30	Fair vigor, fair form, in west corner.
17*	Redwood (<i>Sequoia sempervirens</i>)	16.5	55	40/20	Poor-fair vigor, fair form, water stressed. (5.5 feet from property line)
18*	Redwood (<i>Sequoia sempervirens</i>)	17.6	55	40/20	Poor-fair vigor, fair form, water stressed. (4.5 feet from property line)
19*	Redwood (<i>Sequoia sempervirens</i>)	9.3	50	40/20	Poor-fair vigor, fair form, water stressed. (4.0 feet from property line)
20*	Redwood (<i>Sequoia sempervirens</i>)	15.5	55	40/20	Poor-fair vigor, fair form, water stressed. (6.0 feet from property line)
21*	Redwood (<i>Sequoia sempervirens</i>)	12.1	55	40/20	Poor-fair vigor, fair form, water stressed. (4.0 feet from property line)
22*	Redwood (<i>Sequoia sempervirens</i>)	9.9	55	40/20	Poor-fair vigor, fair form, water stressed. (8.0 feet from property line)
23*	Redwood (<i>Sequoia sempervirens</i>)	17.1	55	40/20	Poor-fair vigor, fair form, water stressed. (5.0 feet from property line)
24*	Redwood (<i>Sequoia sempervirens</i>)	14.1	55	40/20	Poor-fair vigor, fair form, water stressed. (6.5 feet from property line)
25*	Redwood (<i>Sequoia sempervirens</i>)	15.8	55	40/20	Poor-fair vigor, fair form, water stressed. (9.0 feet from property line)
26*	Redwood (<i>Sequoia sempervirens</i>)	18.3	55	40/20	Poor-fair vigor, fair form, water stressed. (6.0 feet from property line)
27*	Redwood (<i>Sequoia sempervirens</i>)	18.0	55	40/20	Poor-fair vigor, fair form, water stressed. (7.0 feet from property line)
28*	Redwood (<i>Sequoia sempervirens</i>)	17.6	55	40/20	Poor-fair vigor, fair form, water stressed. (2.5 feet from property line)

*Indicates neighboring trees. X indicates tree to be removed.

Non-protected trees to be removed with canopy size:

Tree#	Species	DBH	CON	HT/SP	Square feet of canopy
11	Deodar cedar	21.8	55	45/40	1,256
12	Deodar cedar	18.3	55	45/40	1,256
A	Fruitless mulberry	6.9	50	15/15	176
B	Fruitless mulberry	8.2	55	20/20	314
C	Fruitless mulberry	3.1	60	15/10	78.5
D	Fruitless Mulberry	3.0	60	15/10	78.5
E	Fruitless mulberry	2.0	60	15/10	78.5
F	Avocado	3.1	55	15/10	78.5
G	Fruitless mulberry	7.2	50	20/20	314
H	Peach	4.8	55	15/15	176
I	Podocarpus	6x2"	50	10/20x4 80	
J	Fruitless mulberry	8.3	50	15/20	314
K	Fruitless mulberry	7.7	40	15/10	78.5
L	Fruitless mulberry	7.8	40	15/15	176
J	Fruitless mulberry	8.8	50	15/15	<u>176</u>
Total square feet of canopy					4,630.5

Summary:

The trees on site consist of five street trees, four redwoods and two cedars. The street trees are all London plane trees and will be removed.

- The cedars are located in a landscape finger which protrudes into the property. The cedars will be removed to facilitate the construction.

The four redwoods are located in the rear corners of the site ideal for construction. The vertical shoring and excavation should be no closer than 10 feet from the trunks of the redwood trees.

The redwoods will be protected with a modified type 1 tree protection.

The neighboring trees will be protected by property fencing and no negative impacts are expected. The following tree protection plan should be followed to help reduce impacts to the trees on and off site.

Tree Protection Plan:

Tree protection zones should be installed and maintained throughout the entire length of the project. Fencing for tree protection should be 6' tall, metal chain link material supported by metal 2" diameter poles, pounded into the ground to a depth of no less than 2'. The location for the protective fencing should be as close to the dripline of desired trees as possible, still allowing room for construction to safely continue (Type 1 Tree Protection). On this site type 3 tree protection will be used for tree #1, #2, #3, #4 and #5 as the curb and sidewalk will limit the fence-able area. The tree protection fence for the trees must be maintained throughout the entire project.

The following distances for tree protection should be maintained for the entire length of the project:

- Tree #1, #2, #3, #4 and #5, London Plane trees will be removed.
- Trees #13, #14, #15 and #16, redwoods tree protection will be at 10 feet (edge of vertical shoring) and extend to 10 x DBH where possible. (Type 1 tree protection).
- The neighbor's redwoods will be protected by property line fencing.

The above are the radius for tree protection and are the minimum distance the fencing should be installed at. The fencing should extend to the 10 times the DBH from the trunk where possible per Tree Technical Manual.

No equipment or materials shall be stored or cleaned inside the protection zones. Areas outside protection fence, but still beneath the tree's driplines, where foot traffic is expected to be heavy, should be mulched with 4-6" of chipper chips covered with plywood. The spreading of chips will help to reduce compaction and improve soil structure.

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Demolition and Staging

Prior to the start of the demolition process, all tree protection measures must be in place. An inspection prior to the start of the demolition is required. A pre-demolition meeting with the site arborist will be required. The city of Palo Alto often times has their arborist attend this meeting.

All vehicles must remain on paved surfaces if possible. Existing pavement should remain and should be used for staging. If vehicles are to stray from paved surfaces, 4 to 6 inches of chips shall be spread and plywood laid over the mulch layer. This type of landscape buffer will help reduce compaction of desired trees. Parking will not be allowed off the paved surfaces. The removal of foundation materials, when inside the driplines of protected trees, should be carried out with care. Hand excavation may be required in areas of heavy rooting. Exposed or damaged roots should be repaired and covered with native soil. Tree protection fencing may need to be moved after the demolition. The site arborist should be notified and the relocated fence should be inspected.

Root Cutting

Any roots to be cut shall be monitored and documented. Large roots (over 2" diameter) or large masses of roots to be cut must be inspected by the site arborist. The site arborist, at the time, may recommend irrigation or fertilization of the root zone. All roots needing to be cut should be cut clean with a saw or lopper. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist. The over dig for the foundation should be reduced as much as possible when roots are encountered. The site arborist will be on site for all excavation when within the dripline of the trees listed above.

Tree Trimming

Some minor trimming may be required to facilitate the building of the structure. No negative impacts are expected from the trimming.

Trenching

Trenching for irrigation, drainage, electrical or any other reason shall be done by hand when inside the dripline of a protected tree. Hand digging and the careful placement of pipes below or besides protected roots will significantly reduce root loss, thus reducing trauma to the tree. All trenches shall be backfilled with native materials and compacted to near its original level, as soon as possible. Trenches to be left open for a period of time (24 hours), will require the covering of all exposed roots with burlap and be kept moist. The trenches will also need to be covered with plywood to help protect the exposed roots.

Irrigation and Fertilization

Normal irrigation shall be maintained on this site at all times. During the warm season, April – November, I typically recommend some additional heavy irrigation, 2 times per month. During the winter months, it may be necessary to irrigate 1 additional time per month. Seasonal rainfall may reduce the need for additional irrigation. These trees need to be irrigated 2 times a month for the duration of the project. This type of irrigation should be started prior to any excavation.

The irrigation will improve the vigor of the tree and the water content of the tree. The on-site arborist may make adjustments to the irrigation recommendations as needed.

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Inspections

The City of Palo Alto requires monthly tree inspections on construction sites of this nature. An inspection of the tree protection measures is required prior to the start of demolition. The inspections must be carried out by the site arborist. The inspection letters will require the contactors contact information including the phone # of the site superintendent. These inspections must be documented with letters provided to the City Arborist, property owner, and contractor. Other visits will be on an "as needed" basis. The site arborist shall be on site during the excavation process.

Additional information on tree protection requirements may be accessed in the Tree Technical Manual, published by the City of Palo Alto. This publication is available at the city's planning offices or can be accessed on line.

The information included in this report is believed to be true and based on sound arboricultural principles and practices.

Sincerely,

Kevin R. Kielty
Certified Arborist WE#

Appendix C

Root Mapping Report

Arborist OnSite®

Horticultural Consulting, Inc.

www.arboristonsite.com
Robert@arboristonsite.com

ISA Certified Arborist Report

Submitted To:

Rincon Consultants Inc.
449 15th Street, Suite 303
Oakland, California 94612

Project Location:

Caterina Hotel
4256 El Camino Real
Palo Alto, California

Submitted By:

Robert Booty, Registered Member # 487
ISA Qualified Tree Risk Assessor
The American Society of Consulting Arborists
ISA Certified Arborist WC-4286
June 25, 2018

Limits of Assignment

This assignment is limited to a parking lot, involving the neighboring Redwood trees bordering the proposed construction on the property. My investigation involves root locating to determine root density in the area of proposed excavation. Ground penetrating radar can not identify the presence of structural defects in roots located below ground, such as cracks or girdling roots that can be associated with tree failures. GPR can evaluate only depth, location and depending on the MHz of the antenna, targeting root size. Because trees continually change, this evaluation is valid only for the date of this inspection.

Disclaimer

Although studies have shown ground penetrating radar to have a high degree of accuracy¹ for below-ground root identification, these are not photographs but images of predicted root targets or changes in wood composition as in the case of trunk imaging . Arborist OnSite endeavors to use equipment that generates useful information to prepare reports that will reflect its best judgment in light of the facts as it knows them.

Assignment

I have been retained by Karly Kaufman who is the Senior Environmental Planner for Rincon Consultants Inc. A hotel is proposed for construction on this site that involves the excavation for an underground parking garage. Surrounding the proposed excavation site, on neighboring properties are numerous redwood trees. I have been requested to use ground penetrating radar to evaluate the root density of these trees at two different locations within the parking lot. This will be an effort to determine the optimal excavation distance possibilities for the below-ground garage.

¹ Nina Bassuk, "Ground-Penetrating Radar Accurately Locates Tree Roots in Two Soil Media Under Pavement" Arboriculture & Urban Forestry, International Society of Arboricultural 2011.

Observations

I visited the site June 18, 2018. I observed the redwood trees on the neighboring property. There are many, some are very large and others smaller, all are appearing to be in good health.

Identifying the Redwood Trees for our root study

Access to the neighboring redwood trees was not possible. A numbered metal tree tag was attached to the fence at the location each redwood tree. I only tagged the first row of redwoods closest to the fence for this report. Behind the tagged trees are many other redwood trees whose roots also have invaded the parking lot along with the ones identified in this report. This can explain the large amount of structural roots found in this root study.

Conclusions

Using a 400 MHz antenna I set the antenna to penetrate the soil to a depth of 4 feet. The 400 MHz antenna targets structural roots beginning at 1 inch in diameter and larger. Due to the configuration of the property line and the obstacles within it, some measurements were taken from the curb and not the fence to realistically continue to identify the proposed areas of excavation. These changes/areas are clearly marked on the scan results. The structural root mapping results identified roots to a depth of 44 inches with the majority being in the 34-38 inch depth range. Smaller absorbing roots are also present but not identified in this root study, they would be found in the upper 18 inches of the soil profile. As you are reviewing the structural root data refer to the site map on page 7 as a visual site reference.

Methodology

How does it work?

Ground-Penetrating Radar (GPR) is an established technology that has been used worldwide for over 30 years. Radar is an object-detection system that uses *electromagnetic waves* – specifically *radio waves* – to identify the range, altitude, direction, or speed of both moving and fixed objects. When an electromagnetic wave² emitted from a small surface transmit antenna / receiver encounters a boundary between objects with different electromagnetic properties, it will reflect, refract, and or diffract from the boundary in a predictable manner. Radar waves or signals are reflected especially well by materials of considerable *electrical conductivity*. The radar signals that are reflected back towards the antenna are the desirable ones that create the image and make radar work.

Its uses today seem endless. When you look at the weather report, you are looking at a Doppler weather radar scan; it will tell you where the heaviest amounts of rain will fall in your area. It works like this, the radar signal, as it passes through the clouds is reflected back to a transmit receiver antenna that measures the density of the moisture in them and the speed they are traveling. You can then determine approximately when it will start raining and how much rain will fall in a given area. Radar is used in aviation, automobiles, law enforcement and locating objects below ground.

² Daniels, D.J. 1996, Surface-Penetrating Radar. The Institute of Electrical Engineers, ISBN 0-85296-0.

Root Mapping

An Introduction to Below-Ground Tree Root Mapping using Ground – Penetrating Radar (GPR)

Ground-Penetrating Radar used as a method of mapping tree roots has several of the following advantages over other methods of root locating,

1. It is capable of scanning the root systems of multiple trees under field conditions in a short time.
2. It is completely non-invasive and does not disturb the soils or damage the trees being examined, and causes no harm to the environment.
3. Being non-invasive, it allows repeated measurements that reveal long-term root system development.
4. It allows observation of root distribution beneath hard surfaces (concrete, asphalt, and bricks) roads and buildings.

Its accuracy is sufficient to resolve structural roots with diameters from less than 1 cm (0.4 in.) to 3 cm (1.2 in.) or more. It can characterize roots at both the individual tree and stand levels, facilitating correlations with tree and stand level measurements of physiological processes in complex ecological studies.

This is how the radar looks at the existing roots, as the antenna is moved along the ground every 2/10ths of an inch a radar signal is released into the soil at a predetermined depth.

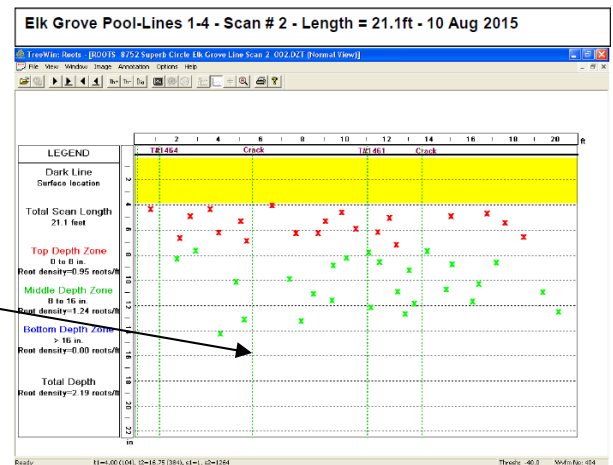
As this signal encounters a root it is reflected off its moisture and back to a receiver inside the antenna. This returned signal is displayed as an x in the final report indicating the presence of a root, the colored x indicates the depth of the root.

Secondly one can observe all roots within a given soil profile depth, on the following pages you will notice 3 color coded soil profiles depicted. When looking at the virtual trench view of maps keep in mind that each x marks the presence of a root. These roots are connected to the tree or root flare as they grow into the soil and then grow out ward in all directions, some have indicated roots that have no obstructions can travel laterally twice the height of the tree; this is what gives the tree stability.

The use of green markers

During the scan markers are placed on the field computer by the technician. These markers are used to identify points of interest along the scan line such as in this case, passing of object landmarks such as a numbered redwood tree. These manually placed markers show up in the final root analysis and can then be used to compare roots found below ground in relation to the physical tree in this case located above ground.

Green dotted lines are markers physically placed on the field computer by the technician during the scanning.



Virtual Trench View

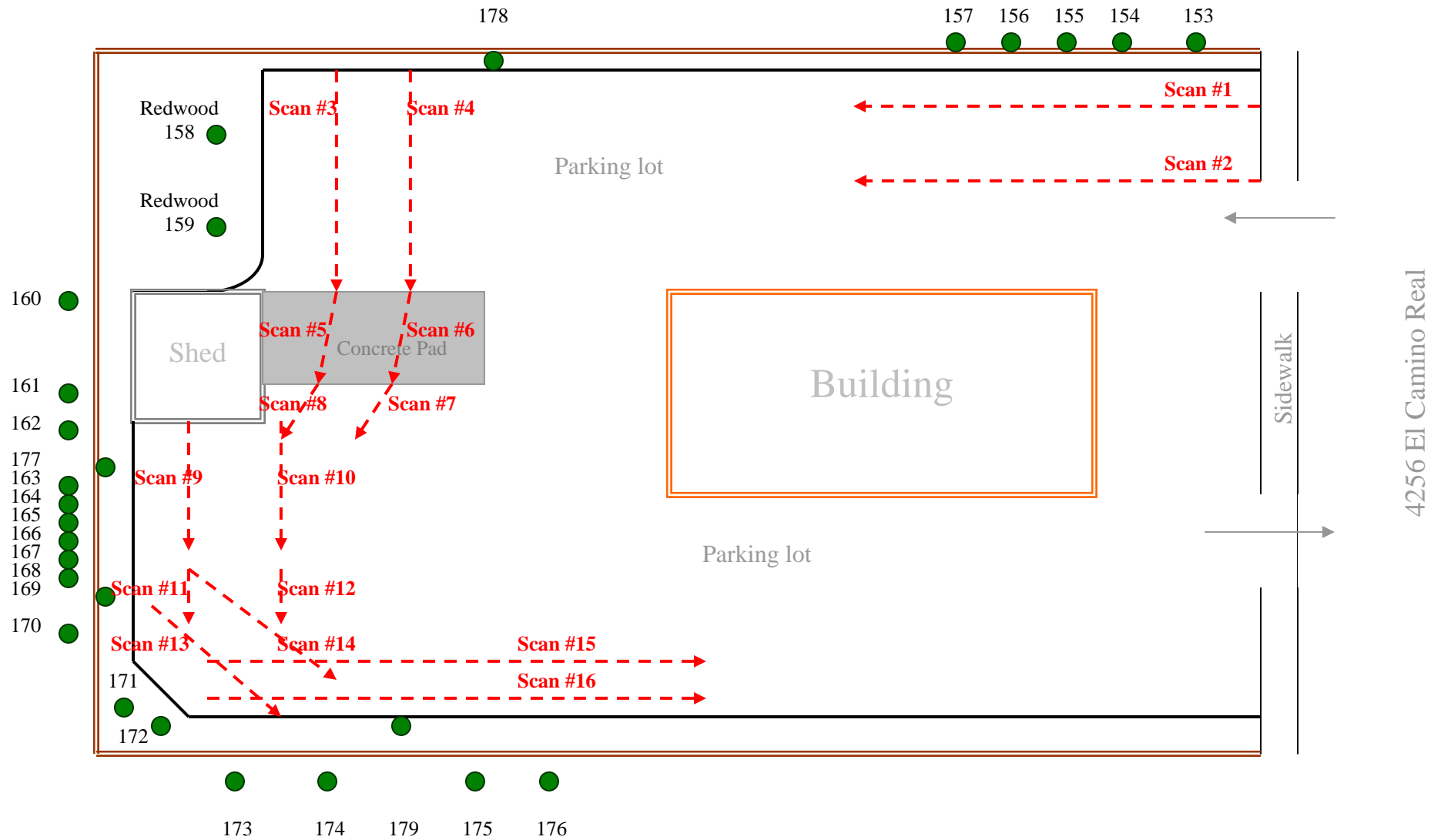
A way of viewing the root data is as a virtual trench. The following panels represent each of the sixteen individual radar line scans from the site as if they were the walls of a trench. Think of this as if you were excavating a deep trench with a back-hoe. As you dig, tree roots will be encountered at various levels or depths in the soil profile, after you have completed your trench you then are able to walk down and stand in the bottom.

Looking up at the earthen wall you are able to see the severed tree roots from your trenching protruding from the soil at the various depths of your trench. As you look at the following individual 16 virtual trench scans each x on the wall represents a severed root. Each colored x represents a different depth where the root is located.

One advantage of the trench view is that one can look at individual roots within their 3 represented depth zones and see the actual depth of each individual root.

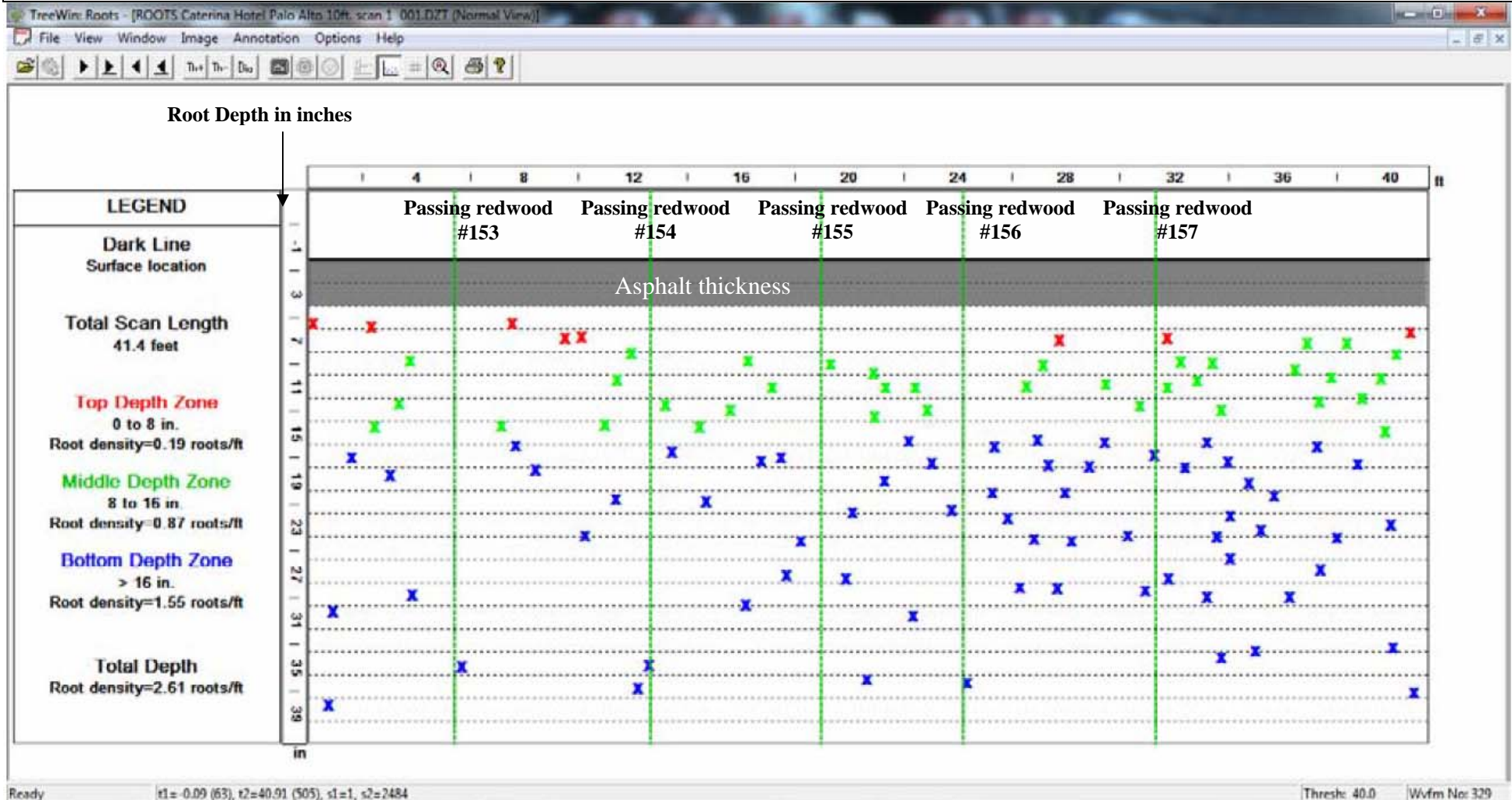
Site Map

Not to scale



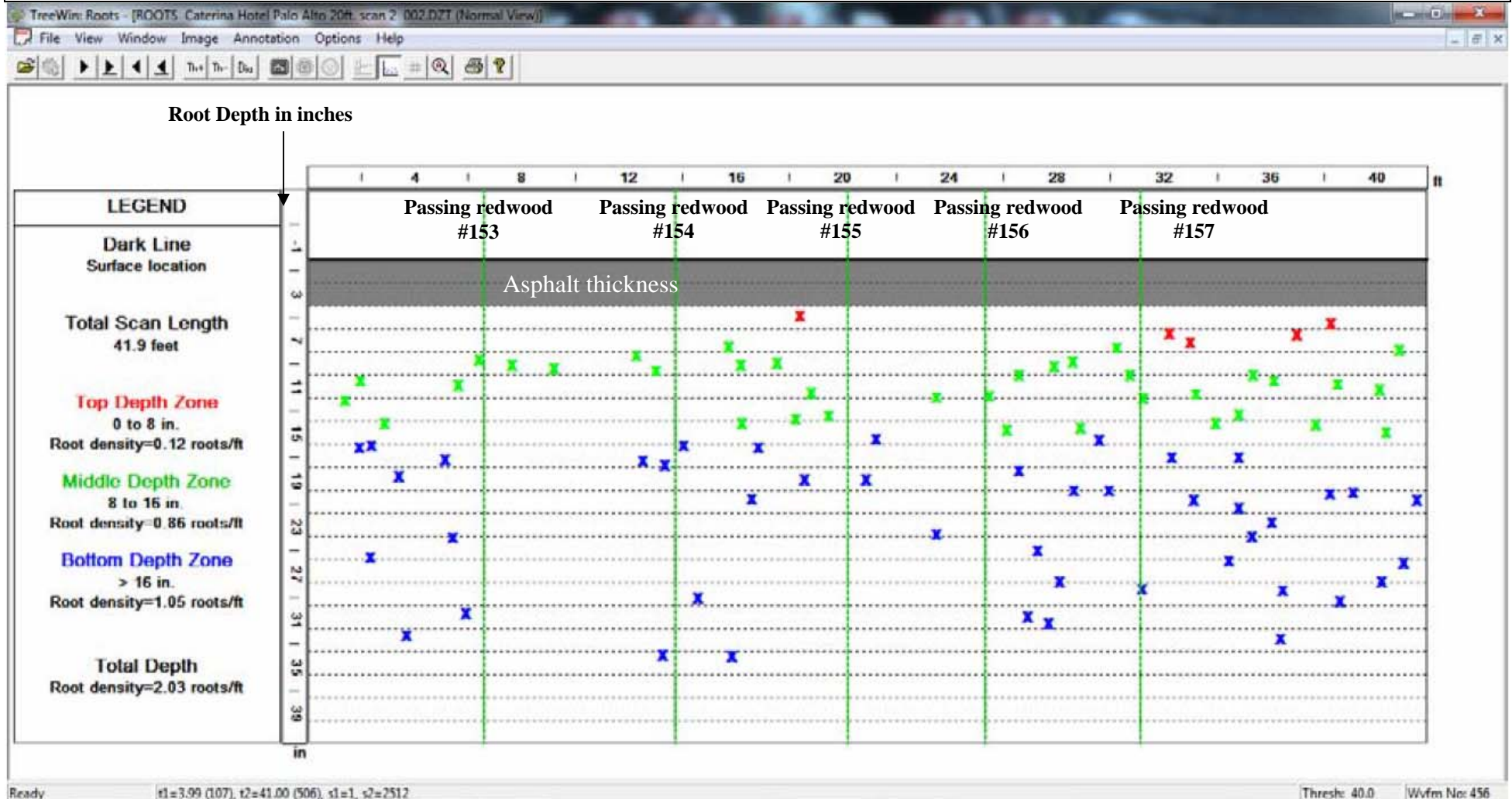
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #1 Ten feet from the property line.



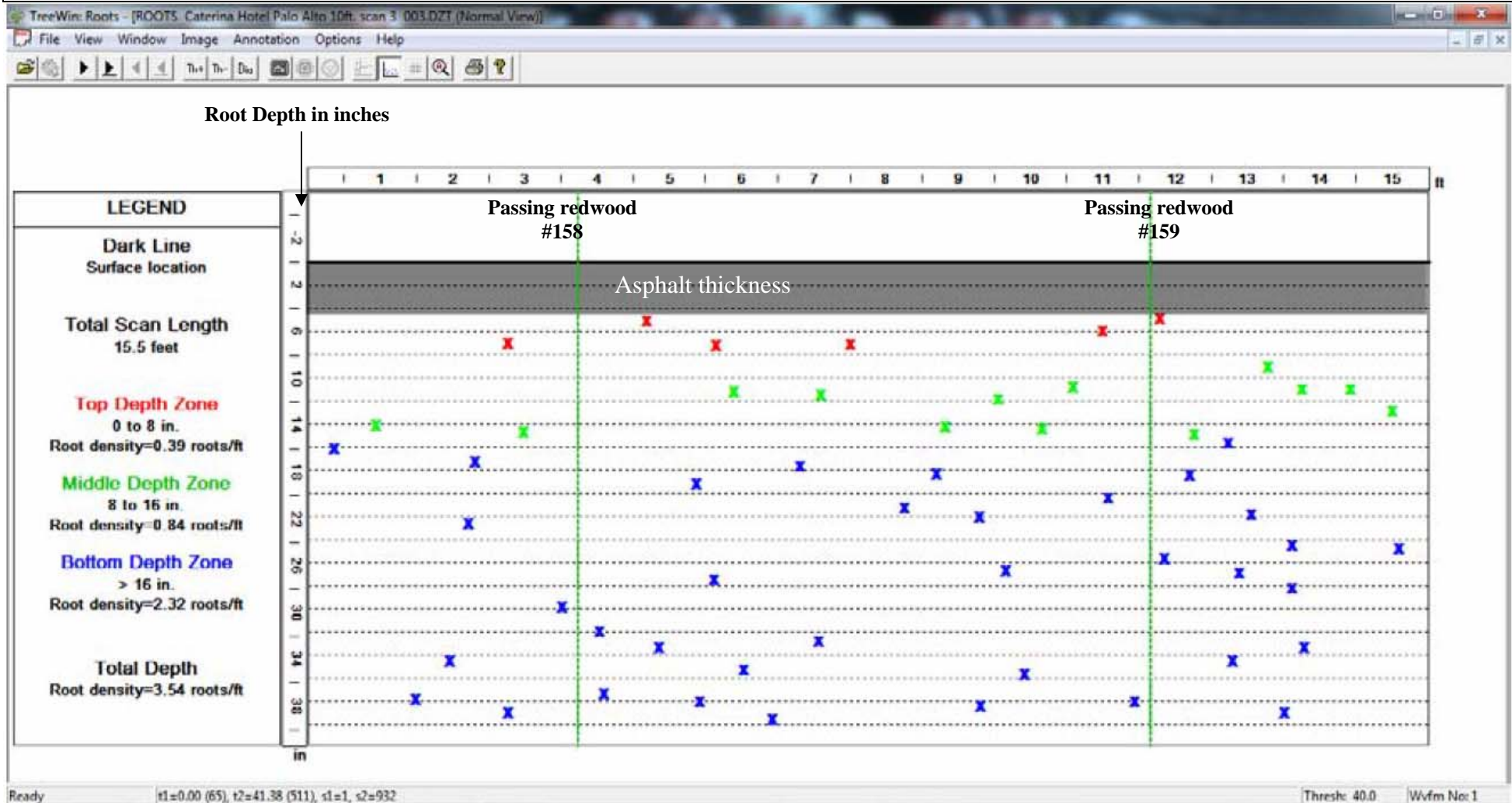
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #2 Twenty feet from the property line.



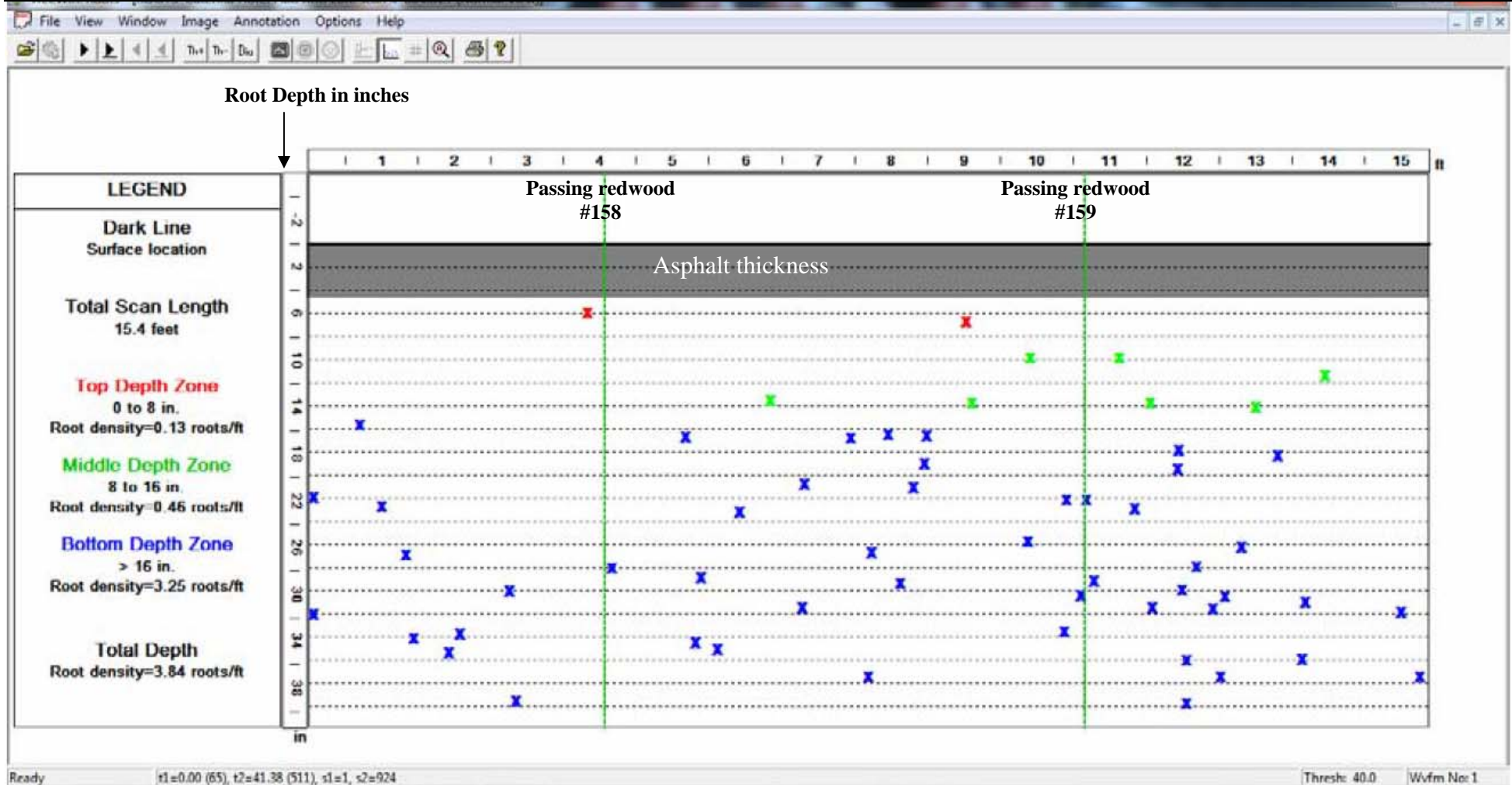
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #3 Ten feet from the parking lot curb.



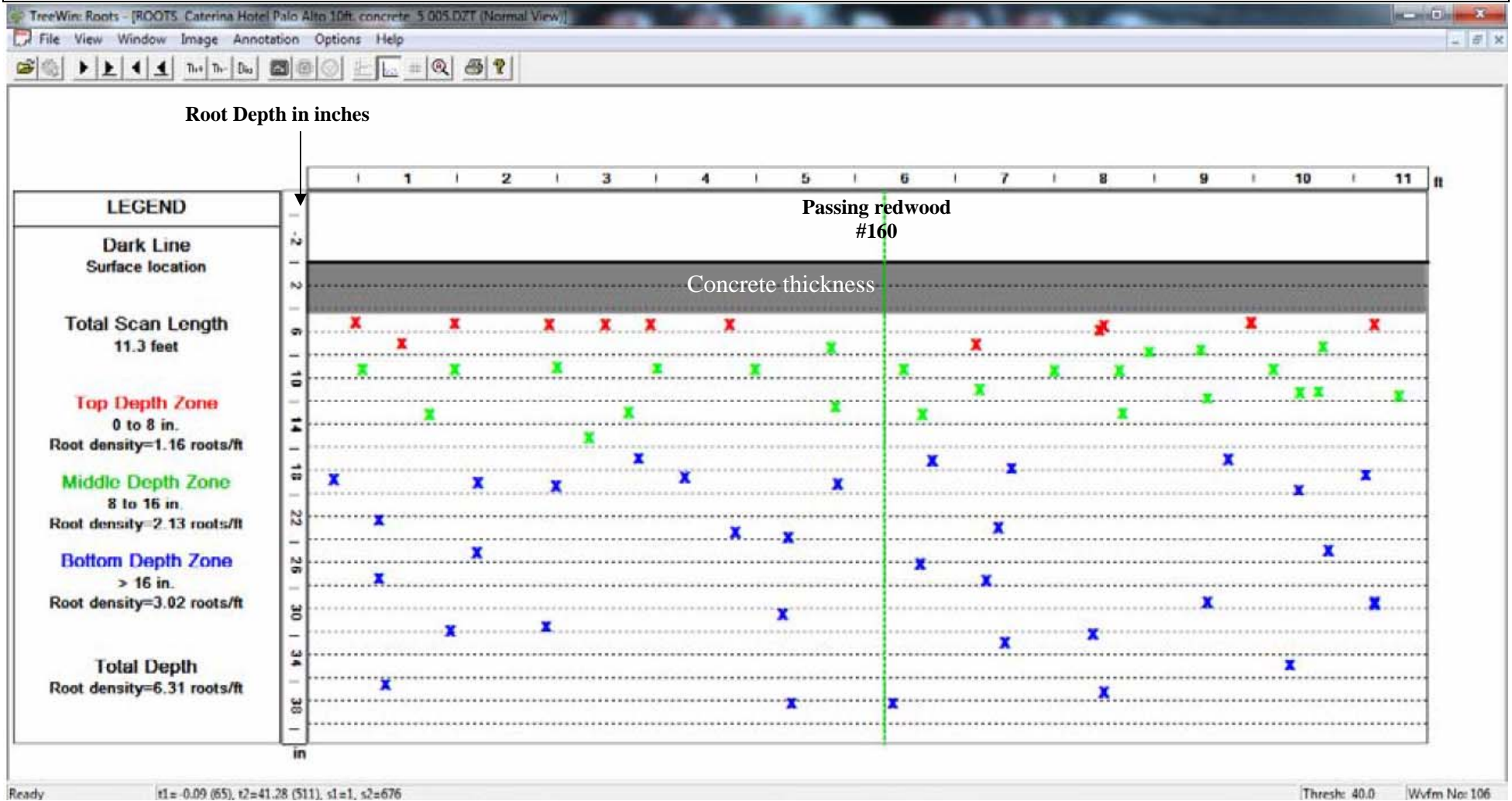
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #4 Twenty feet from parking the lot curb.



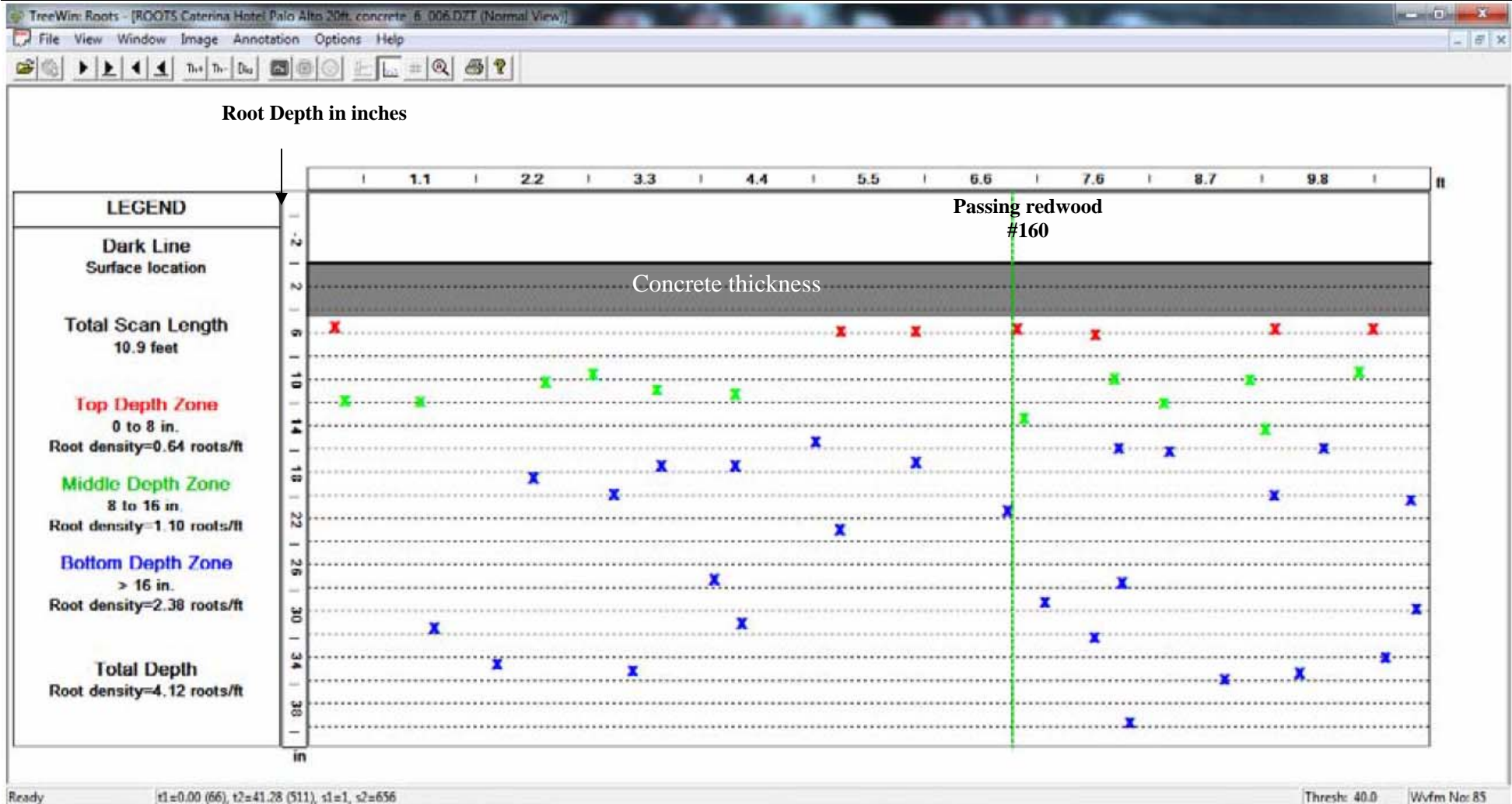
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #5 Over Concrete Pad Ten feet from the Shed.



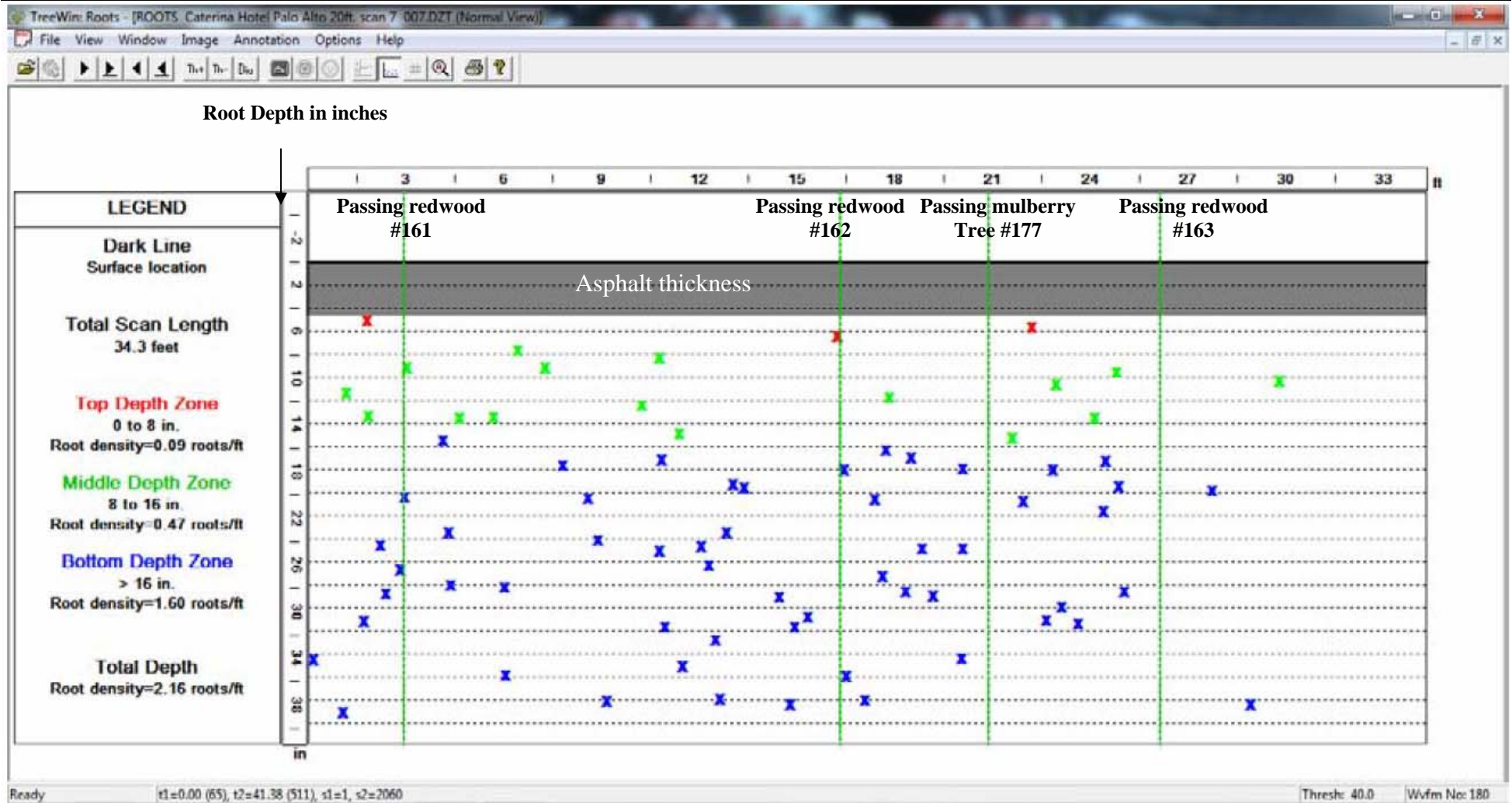
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #6 Over Concrete Pad Twenty feet from the Shed.



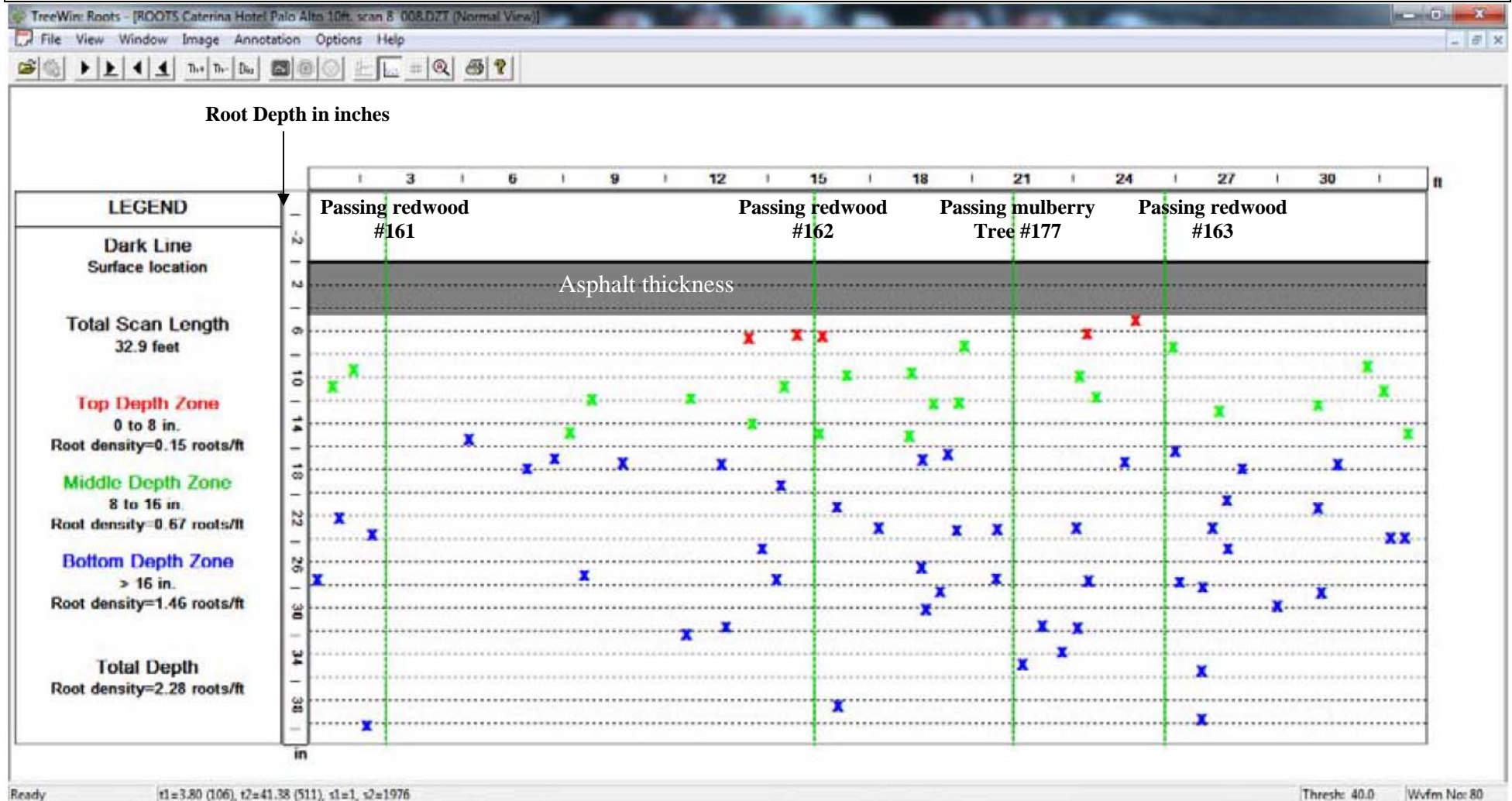
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #7 Twenty feet from the Shed.



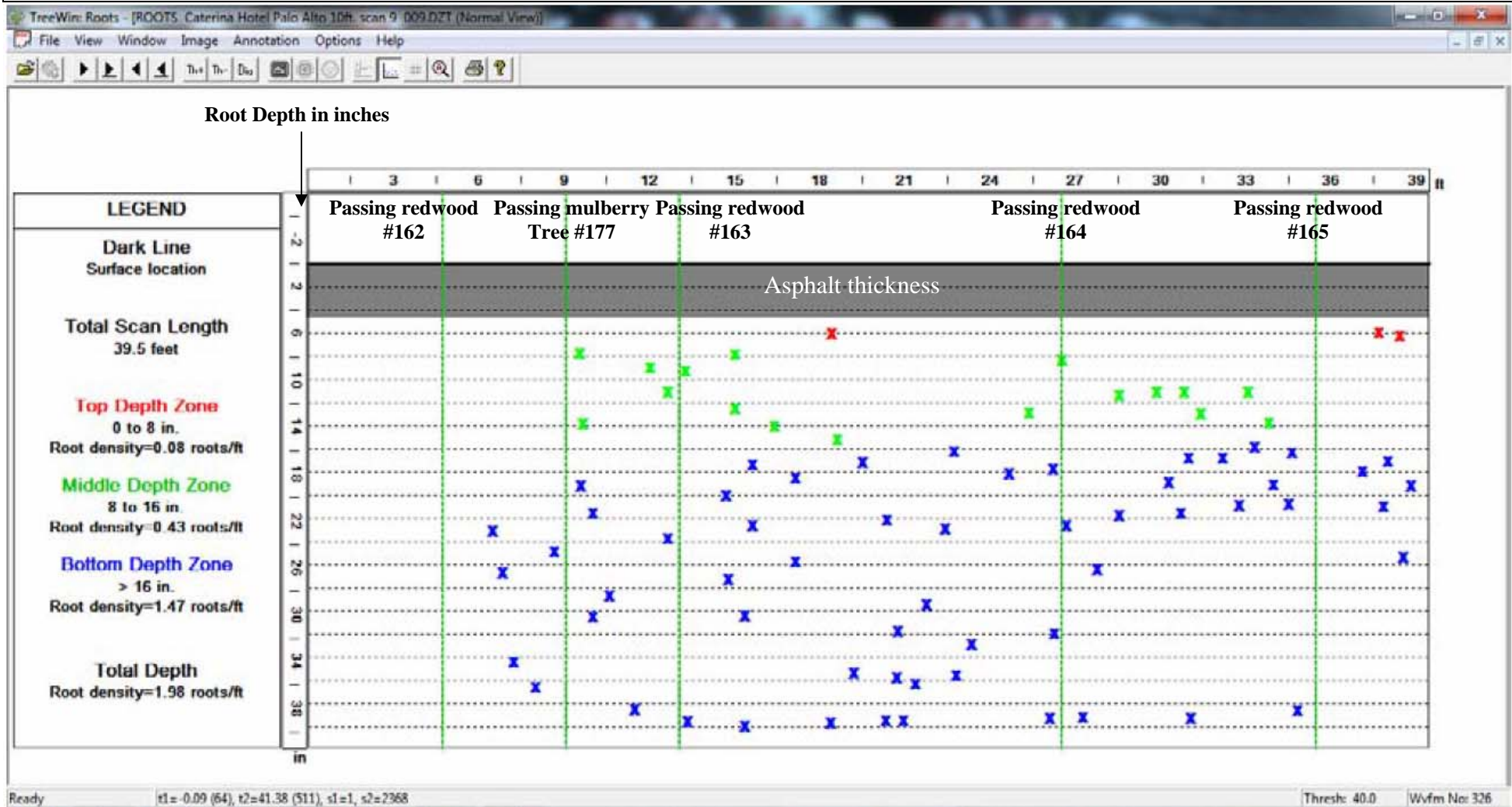
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #8 Ten feet from the Shed.



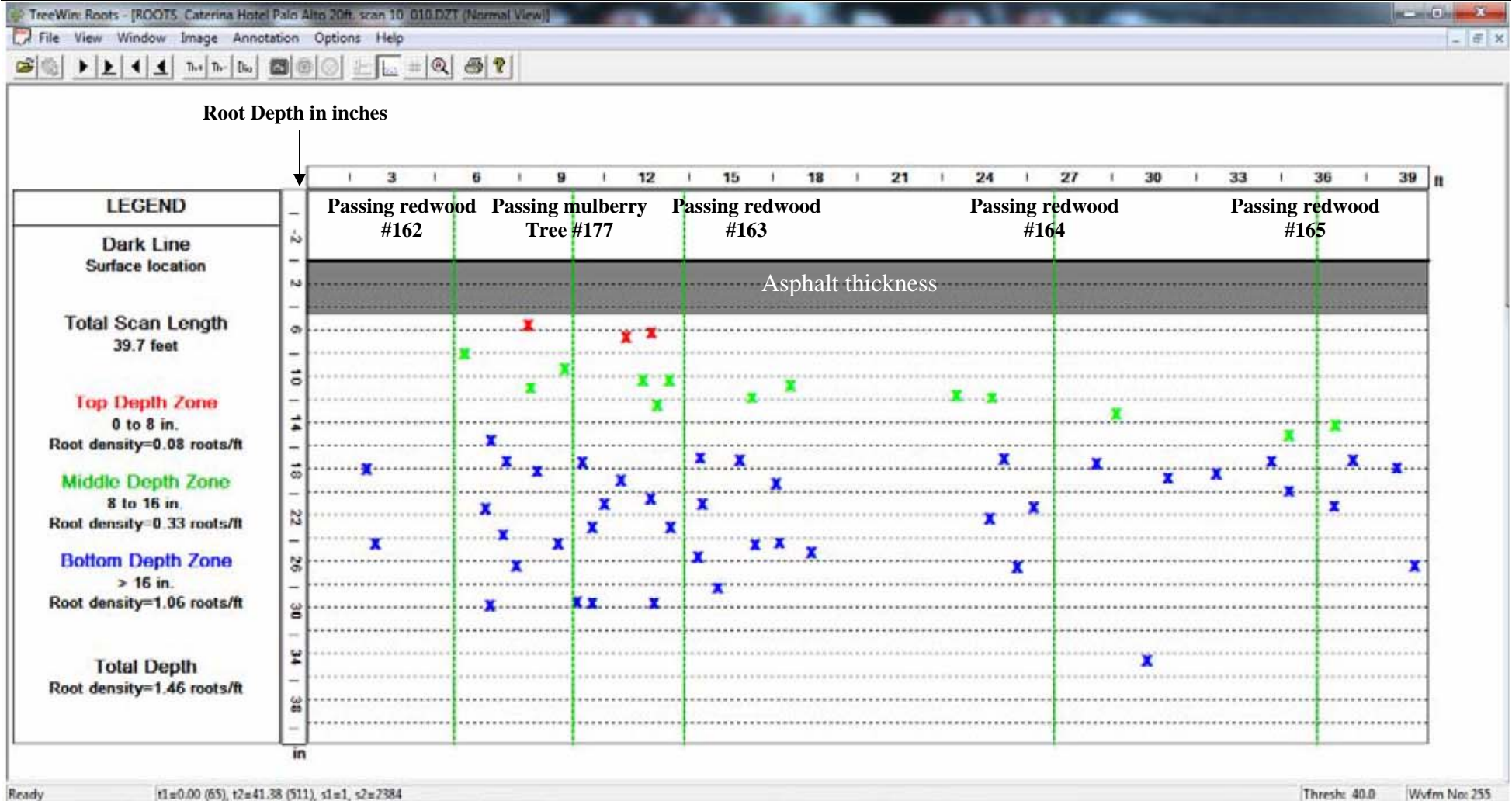
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #9 Ten feet from the property line.



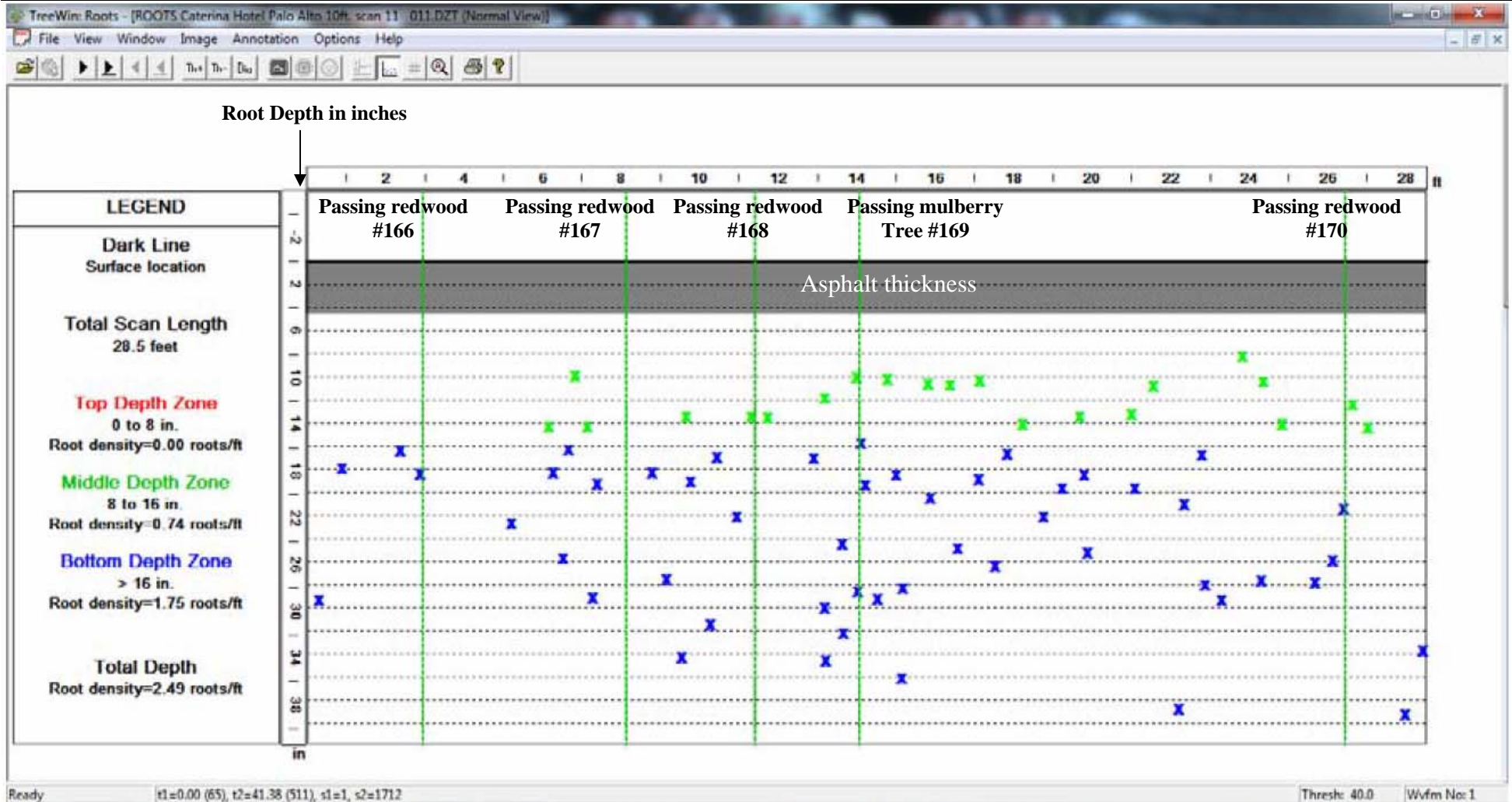
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #10 Twenty feet from the property line.



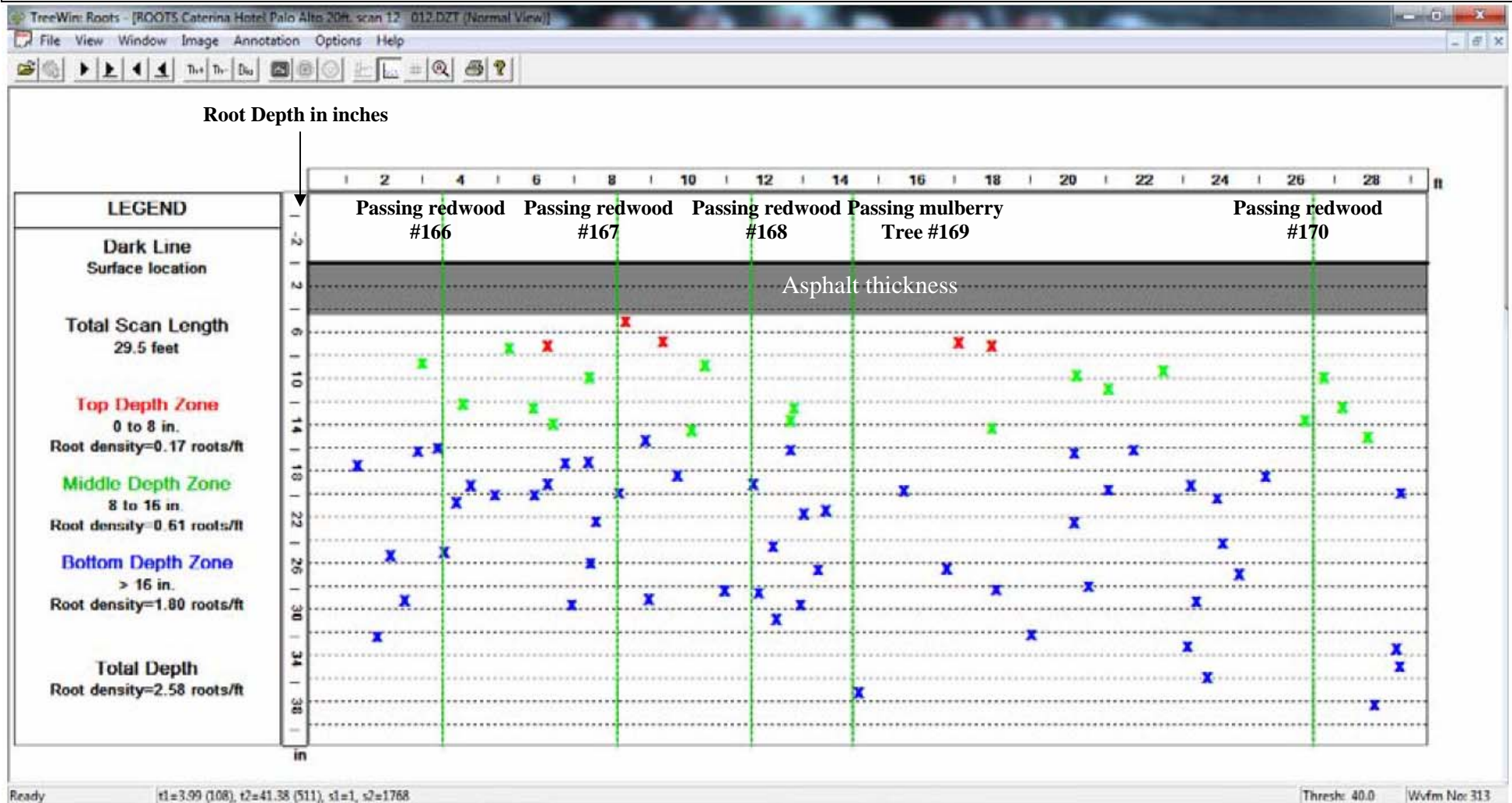
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #11 Ten feet from the property line.



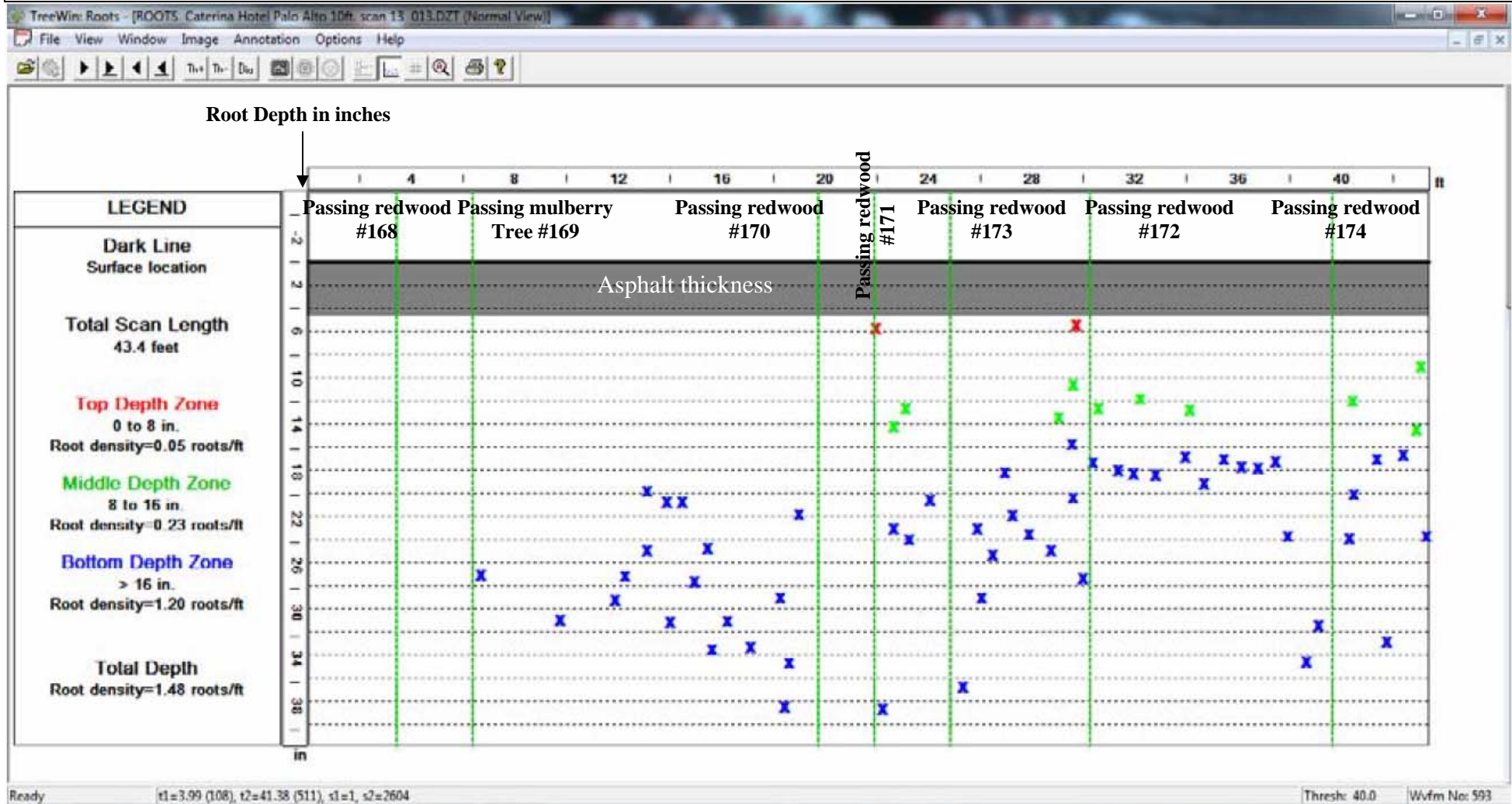
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #12 Twenty feet from the property line.



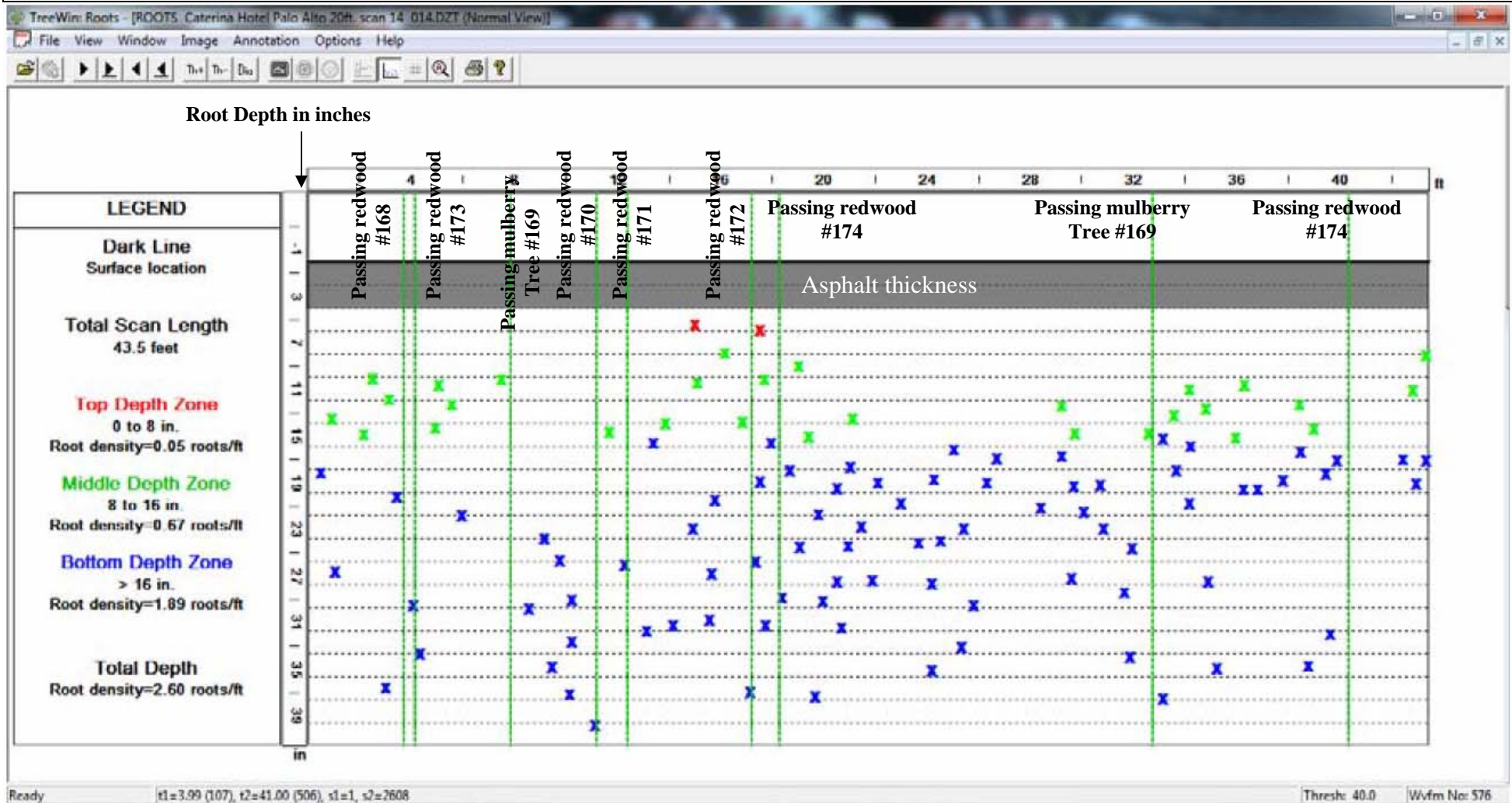
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #13 Ten feet from the parking lot curb.



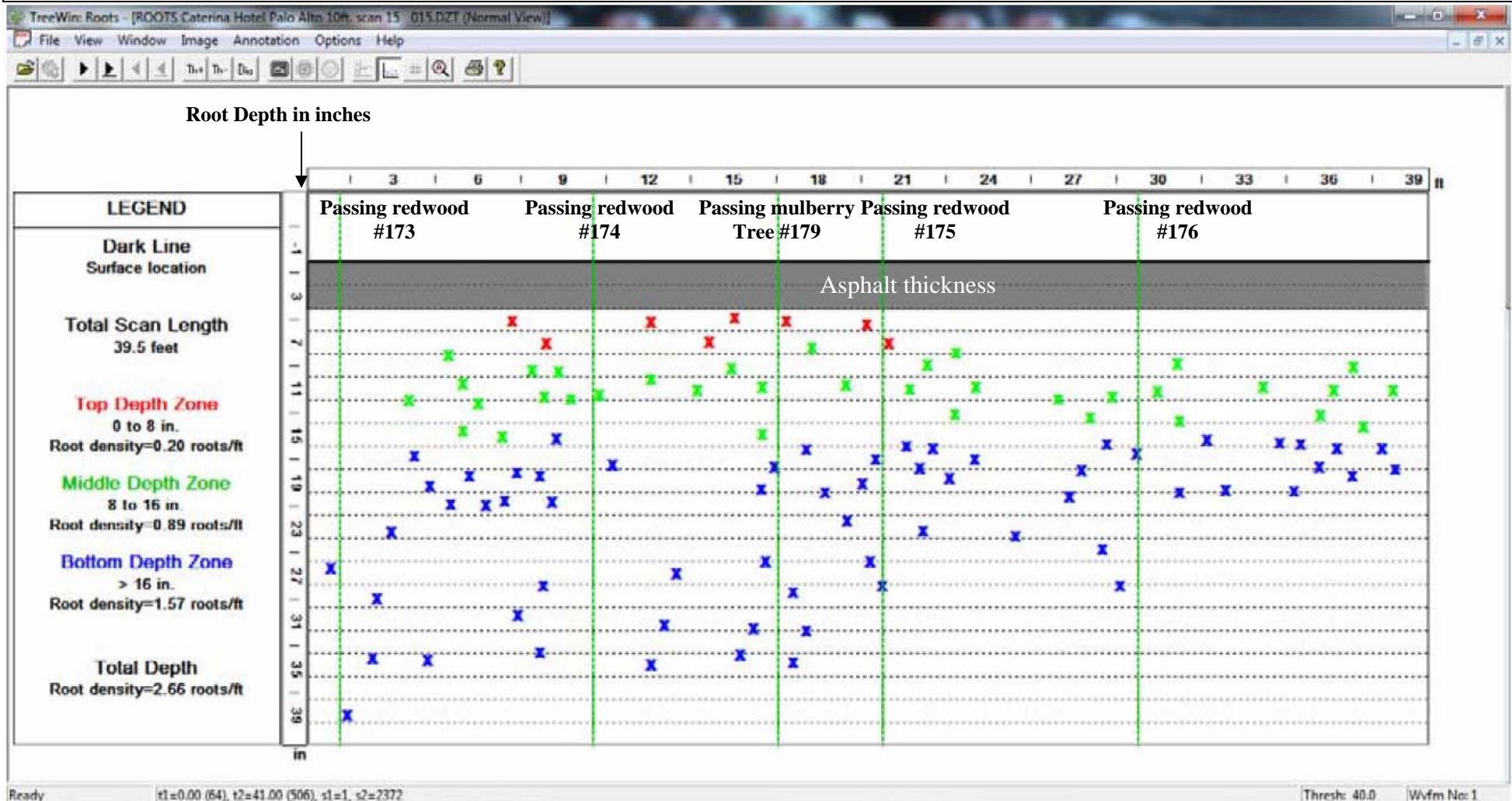
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #14 Ten feet from the parking lot curb.



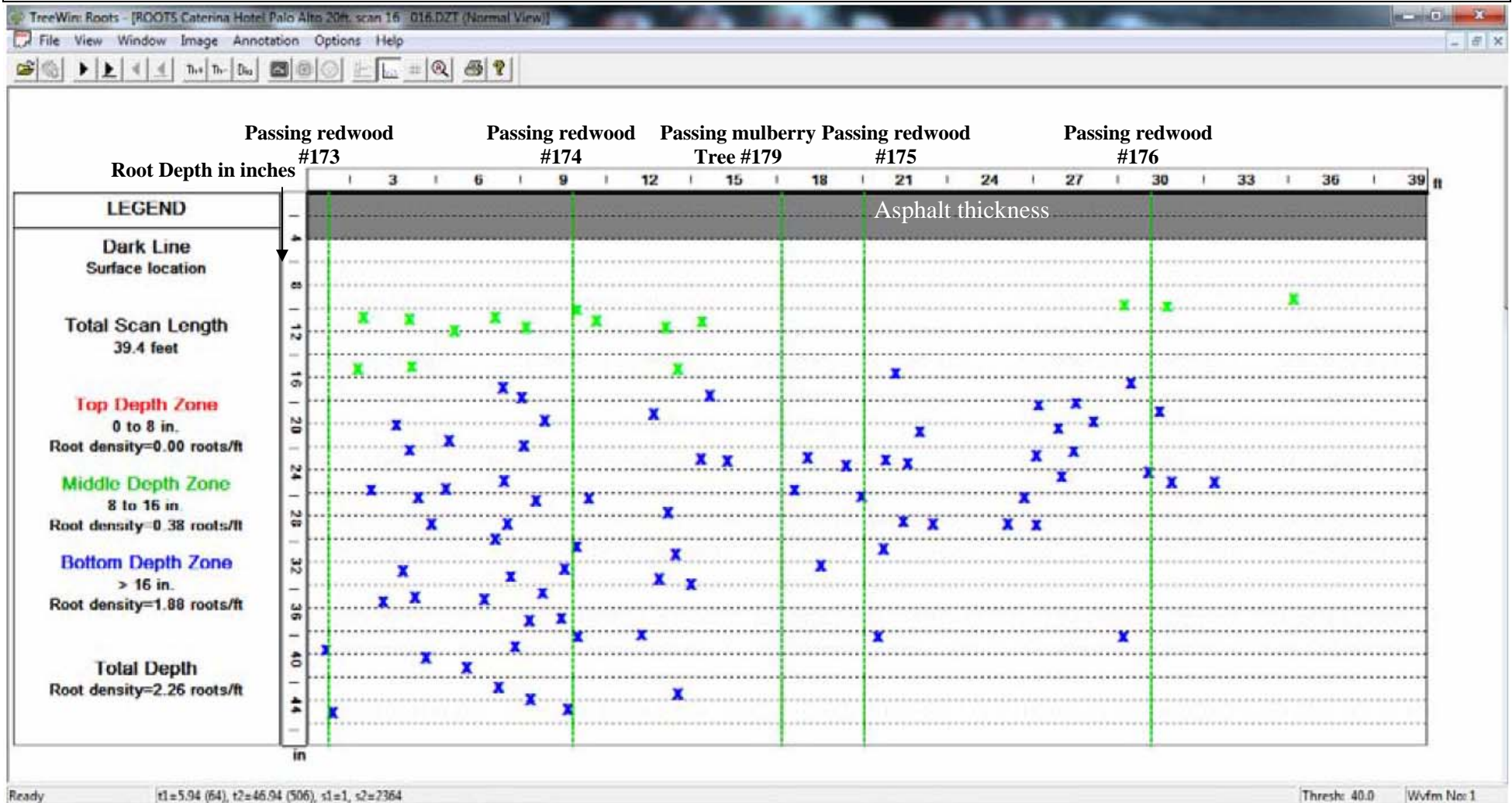
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #15 Ten feet from the property line.



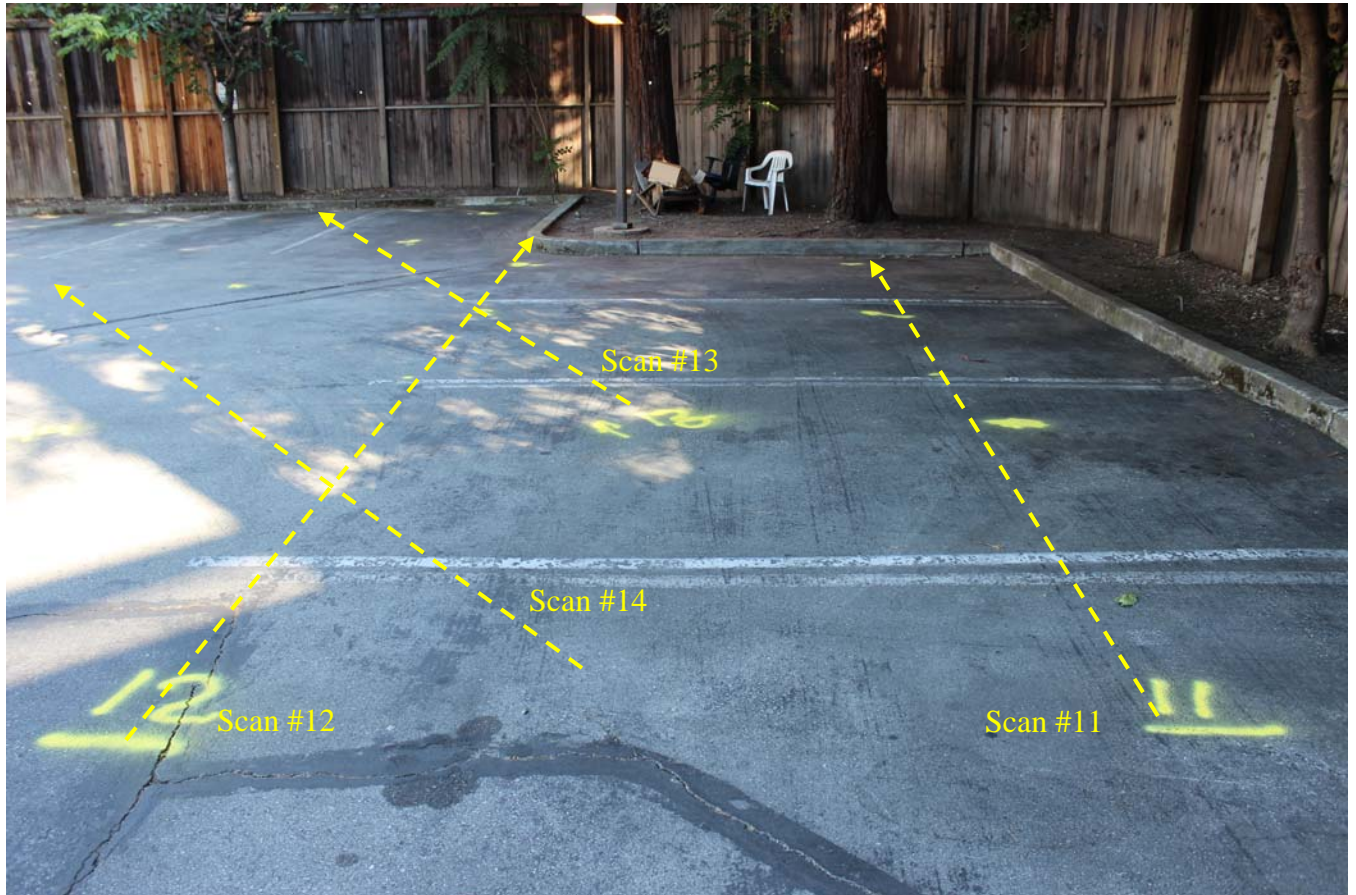
Caterina Hotel 4256 El Camino Real Palo Alto, Ca. June 18, 2018

Root Scan #16 Twenty feet from the property line.











Arborist Disclosure / Performance of Services

1. **Disclosure.** Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of the trees and attempt to reduce the risk of living near trees. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree.

Since trees are living organisms, conditions are often hidden within the tree and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specific period of time. Likewise, remedial treatments cannot be guaranteed. Trees can be managed but they cannot be controlled. To live near trees is to accept some degree of risk and the only way to eliminate all risk associated with trees is to eliminate all trees.

2. **Indemnification from current and future tree failures.** Although radar imaging has no known harmful physical affects on trees the client agrees to indemnify, defend and hold Arborist OnSite Inc. and TreeRadar inc. harmless from and against any and all claims, liabilities, suite, demands, losses, costs and expenses, including, but not limited to, reasonable attorneys' fees and all legal expenses and fees incurred through appeal, and all interest thereon, accruing or resulting to any and all persons, firms or any other legal entities on account of any damages or losses to property or persons, including injuries or death, or economic losses, arising out of the Services and/or this Agreement, *except to the extent that said damages or losses are caused by Consultant's gross negligence or willful misconduct.* This indemnity, shall survive any expiration or termination of this Agreement with regard to any claims arising during, or related to, facts or circumstances that occurred during the term of this Agreement or any extension thereof.

No warranty, representation or guarantee, express or implied, is intended by this agreement. Consultant is not responsible for the completion or quality of work that is dependant upon or performed by Client or third parties not under the direct control of Consultant or for their acts or omissions or for any damages resulting there from.

3. **TreeRadar™ / Arborist OnSite® Disclaimer**

1. **Use at Customer's Risk.** TreeRadar™ and Arborist OnSite® endeavors to use equipment that generates useful information and, when provided, to prepare reports that will reflect its best judgment in light of the facts as it knows them, TreeRadar™ or Arborist OnSite® does not guarantee the outcome of its efforts or the structural integrity of any tree. Any report prepared by Arborist OnSite® or equipment and data analysis services provided by TreeRadar™ is used strictly at your sole risk

2. **Disclaimer of Warranties.** You expressly understand and agree that:

(a) Your use of TreeRadar™ equipment or Arborist OnSite's® use of ground penetrating radar technology services, are at your own risk. Such services are provided on an "as is and "as available" basis. TreeRadar™ and Arborist OnSite® expressly disclaims all warranties of any kind, expressed or implied, including but not limited to implied warranties of merchantability, fitness for a particular purpose and non-infringement. TreeRadar™ and Arborist OnSite® make no warranty that the equipment will be error-free or the data results obtained from the use of this equipment will be reliable.

Neither TreeRadar™ or Arborist OnSite® shall not be liable for any direct, indirect, incidental, special, consequential or exemplary damages, including but not limited to damages for goodwill, injury to body or property, death or other losses even if TreeRadar™ or Arborist OnSite® has been advised of the possibility of such damages resulting from the use or reliance TreeRadar™ equipment or Arborist OnSite's® use of ground penetrating radar technology.

4 **General Conditions.** Client acknowledges that it has read and agrees to the General Conditions contained in this document which are incorporated herein and made a part of this Agreement and report and shall apply to all services performed by Consultant. If this document is attached to another form of agreement whose terms and conditions conflict with this Agreement the General Conditions contained in this document shall prevail.

Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as to the quality of any title.
2. The consultant can neither guarantee nor be responsible for accuracy of information provided by others, information not provided or disclosed.
3. The consultant shall not be required to give testimony or to attend court by reason of this consultation/reports unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire report/evaluation.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the persons(s) to whom it is addressed without written consent of this consultant.
6. This report represents the opinion of consultant, and the consultant's fee is in no way contingent upon the reporting upon any pre-determined findings.
7. Sketches, diagrams, graphs, photos, ect., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. No tree described in this report was climbed, unless otherwise stated. Arborist OnSite® cannot assume responsibility for any defects which could only have been discovered by climbing. A full root collar or root crown inspection, consisting of excavating the soil around the tree to uncover hidden defects or disease involving the root collar and major buttress roots, was not performed, unless otherwise stated. Arborist OnSite® cannot accept responsibility for any root defects which could only have been discovered by such an inspection.

Certification of Performance

I, Robert Booty, certify:

- That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and or appraisal is stated in the attached report and the terms and conditions;
- That I have no current interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are my own, and are based on current scientific procedures and facts;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events;
 - That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report.

I further certify that I am a Registered Member of the American Society of Consulting Arborists, and I am an International Society of Arboriculture Certified Arborist. I have been involved in the practice of arboriculture and the care and study of trees for over 49 years.

Signed: Robert Booty

Date: June 25, 2018