

Client: Noah & Dinah Stroe
Project Location: 52-54 Tamalpais Avenue, San Anselmo
Inspection Date: August 8, 2019
Arborist: Ben Anderson



URBAN FORESTRY ASSOCIATES, INC.

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Assignment

Rose de Angelo or Tam Home Team contacted Urban Forestry Associates on behalf of her clients, Noah and Dinah Stroe, to request an inspection of the trees on the property they are considering for purchase. They were specifically concerned about the health and stability of two valley oak trees (*Quercus lobata*), as they are quite large and growing over the home. Both the clients and Megan Rogerson of Tam Home Team were present at the inspection. Following the inspection, they met with Sean Condry, the director of Public Works for the town of San Anselmo to discuss the tree. They then requested that I produce a formal report to submit along with a tree removal permit application to the Town.

Observations

Tree 1

Species Valley oak
Diameter 39.3 inches
Location East of the home (see map in Figure 1). The south-most of the two subject trees. The tree base is engulfing the front walk and stoop (Figure 2) and the trunk is nearly in contact with the eave.
Health Good. See explanation of condition ratings in Table 1.
Structure¹ Poor. The canopy has a strong asymmetry over the home (Figure 4). This appears to be the result of a large valley oak previously on the property to the east that reportedly failed several years ago but is still visible on Google Earth imagery. The branches of the tree are over-extended and target the home and driveway.
Form² Fair. Again, strongly asymmetrical balanced to the west over the home.

Tree 2

Species Valley oak
Diameter 38.7 inches
Location On the east side of the home, behind the property fence. North of Tree 1. The trunk is in contact with the main home (Figure 3). The eave was already modified to the greatest extent possible without changing the framing of the wall.
Health Good.
Structure Poor. Nearly identical to Tree 1 (Figure 5). One of the large limbs over the home appears to be flattened out, possibly indicating an internal fracture.
Form Fair. Nearly identical to Tree 1.

¹ **Structure** – Overall stability of the tree or its branches. This can be negatively affected by things such as acute angle crotches, decay cavities, strong leans, stem girdling roots, ambrosia beetles, history of failures, etc.

² **Form** – The plant’s overall appearance as it relates to its shape or silhouette. Can be negatively affected by crown asymmetries.

Discussion

Valley oak trees are subject to the phenomenon known as "sudden branch drop." This is when large, healthy limbs with no associated decay break along their length (as opposed to at their attachment point) on hot, windless days. The phenomenon appears to increase in frequency when trees achieve a diameter of 30 inches (which both trees have done). It is also notable that it is rare to see valley oak trees larger than the subject trees even with good form, as this is the size and age at which they begin to decline and become more hazardous in such a developed landscape.

The impact of the engulfed sidewalk on tree stability is unknown but this is certainly a structural defect as it disrupts structural, tension side of the load bearing column of the tree and could interfere with lateral root development.

Tree 2 will only continue to increase in diameter, further damaging the home and the trunk of the tree. Unless the home is seriously modified, the tree will have to be remove in the coming years.

The failure of trees of the same age and species in the immediate vicinity of the subject trees is also a factor that elevates the likelihood of tree failure. The same conditions that caused the other tree to fail could be affecting the subject trees, and the loss of the tree changes the wind patterns to which the trees are accustomed and they may be underprepared to bear the new wind forces.

To meaningfully prune the trees to mitigate risk of failure would be a huge undertaking, costing many thousands of dollars and this would still not address the sidewalk issue (Tree 1) or the contact with the home (Tree 2). It would also require large diameter cuts, creating wounds for decay to enter the trees.

Conclusions

These trees are at an elevated likelihood of large limb failure onto the home, which would have severe consequences. They are nearing the end of their safe utility period and removal is a reasonable option. Unless the tree owner is willing to spend significant amounts and to live with an elevated risk even after the pruning, I recommend whole-tree removal of both trees.

SCOPE OF WORK AND LIMITATIONS

Urban Forestry Associates has no personal or monetary interest in the outcome of this investigation. All observations regarding trees in this report were made by UFA, independently, based on our education and experience. All determinations of health condition, structural condition, or hazard potential of a tree or trees at issue are based on our best professional judgment. The health and hazard assessments in this report are limited by the visual nature of the assessment. Defects may be obscured by soil, brush, vines, aerial foliage, branches, multiple trunks, other trees, etc. Even structurally sound, healthy trees can fail during severe storms. Consequently, even a low risk rating is not a guarantee of no risk, hazard, or sound health.



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Table 1. Condition ratings table. Taken from *Guide for Plant Appraisal, 10th edition*

Rating category	Condition components		
	Health	Structure	Form
Excellent	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.
Good	Vigor is normal for the species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.
Fair	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may comprise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised.
Poor	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.
Very poor	Poor vigor. Appears to be dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.
Dead			



Figure 1. Map of subject trees, indicated with red arrows. Red circle indicates canopy of neighbor's failed oak.



Figure 2. Base of Tree 1 engulfing the sidewalk and stoop.



Figure 3. Trunk of Tree 2 in contact with home. Past modifications to the eave visible.



Figure 4. Canopy of Tree 1 growing over home as viewed from the driveway.



Figure 5. Canopy of Tree 2 growing over home. Note long, over-extended limbs with few bifurcations.