

# Advanced Tree Care

965 East San Carlos Ave, San Carlos

1136 Northumberland Dr., Sunnyvale

November 6, 2019

Samir Sharma: AK Construction  
385 Woodview Ave, #250  
Morgan Hill, CA 95037

Site: 1136 Northumberland Dr., Sunnyvale

Dear Samir,

At your request I visited the above site for the purpose of inspecting and commenting on the regulated trees around the property. A subdivision and 2 new homes are planned for this property, prompting the need for this tree protection report.

## Method:

Sunnyvale regulates trees of Significant size. "Significant size" means a tree thirty-eight inches or greater in circumference measured four and one-half feet above ground for single-trunk trees. For multi-trunk trees "significant size" means a tree which has at least one trunk with a circumference thirty-eight inches or greater measured four and one-half feet above ground level, or in which the measurements of the circumferences of each of the multi-trunks, when measured four and one-half feet above the ground level, added together equal an overall circumference one hundred thirteen inches or greater. The location of the regulated trees on this site can be found on the plan provided by you. Each tree is given an identification number. The trees are measured at 54 inches above ground level (DBH or Diameter at Breast Height). A condition rating of 1 to 100 is assigned to each tree representing form and vitality on the following scale:

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

The height and spread of each tree is estimated. A Comments section is provided for any significant observations affecting the condition rating of the tree.

A Summary and Tree Protection Plan are at the end of the survey providing recommendations for maintaining the health and condition of the trees during and after construction.

If you have any questions, please don't hesitate to call.

Sincerely



Robert Weatherill  
Certified Arborist WE 1936A

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## Tree Survey

Tree#	Species	DBH	Ht/Sp	Con Rating	Comments
1	Fern pine <i>Podcarpus gracilior</i>	10.8/4.3/8.9/9.4"	25/20	60	Fair health and condition <b>Not Significant</b>
2	Chinese elm <i>Ulmus parvifolia</i>	7.3/7.3"	25/20	60	Fair health and condition <b>Not Significant</b>
3	Coast live oak <i>Quercus agrifolia</i>	26.8"	30/40	65	Good health and condition, some dead wood, <b>Significant</b>
4	Shamel ash <i>Fraxinus udhei</i>	24.0"	25/40	60	Fair health, poor condition, topped for utility, <b>Significant</b>
5	Incense cedar <i>Calocedrus decurrens</i>	10.1"	25/10	0	Dead <b>Not Significant</b>
6	Black acacia <i>Acacia melanoxylon</i>	9.5/9.4"	30/15	60	Good health, poor condition, poor species, <b>Not Significant</b>

## **Summary:**

The trees on the site are a variety of natives and non-natives.

There are only 2 'Significant' size trees on the property. Tree #s 3 and 4.

All other trees can be removed if desired.

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## Tree Protection Plan

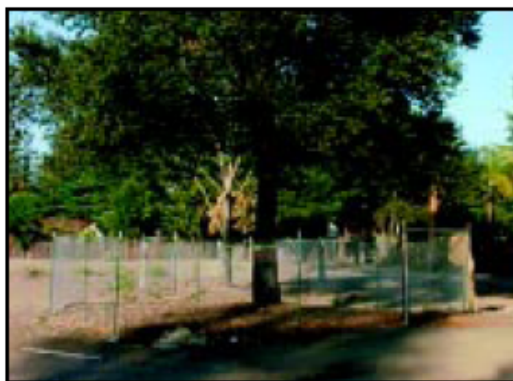
1. The Tree Protection Zone (TPZ) should be defined with protective fencing. This should be cyclone or chain link fencing on 1 1/2" or 2" posts driven at least 2 feet in to the ground standing at least 6 feet tall. Normally a TPZ is defined by the dripline of the tree. I recommend the TPZ's as follows:-

Tree #s 3 and 4: TPZ should be at 15 feet from the trunk closing on the fence line in accordance with Type I Tree Protection as outlined and illustrated in image 2.15-1 and 2 <sup>(6)</sup>.



**IMAGE 2.15-1**

Tree Protection Fence at the Dripline



**IMAGE 2.15-2**

Tree Protection Fence at the Dripline

### • **Type I Tree Protection**

The fences shall enclose the entire area under the **canopy dripline or TPZ** of the tree(s) to be saved throughout the life of the project, or until final improvement work within the area is required, typically near the end of the project (*see Images 2.15-1 and 2.15-2*). Parking Areas: If the fencing must be located on paving or sidewalk that will not be demolished, the posts may be supported by an appropriate grade level concrete base.

The foundation for the proposed new houses within the TPZs of Tree #s 3 and 4 should be dug by hand. No roots greater than 2 inches in diameter should be cut. Shaded in blue on drawing.

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The proposed patios within the TPZs should be laid on biaxial geogrid overlaid with drain rock. There should be minimal excavation within the TPZ of no greater than 4' below grade. There should be no compaction within the TPZs of either trees. Area shaded in blue on drawing.



Biaxial Geogrid laid beneath patio, overlaid with drain rock

2. Any pruning and maintenance of the tree shall be carried out before construction begins. This should allow for any clearance requirements for both the new structure and any construction machinery. This will eliminate the possibility of damage during construction. **The pruning should be carried out by an arborist, not by construction personnel.** No limbs greater than 4" in diameter shall be removed.

3. Any excavation in ground where there is a potential to damage roots of 1" or more in diameter should be carefully hand dug. Where possible, roots should be dug around rather than cut.<sup>(2)</sup>

4. If roots are broken, every effort should be made to remove the damaged area and cut it back to its closest lateral root. A clean cut should be made with a saw or pruners. This will prevent any infection from damaged roots spreading throughout the root system and into the tree.<sup>(2)</sup>

5. **Do Not:**<sup>(4)</sup>

- a. Allow run off or spillage of damaging materials into the area below any tree canopy.
- b. Store materials, stockpile soil, park or drive vehicles within the TPZ of the tree.
- c. Cut, break, skin or bruise roots, branches or trunk without first obtaining permission from the city arborist.
- d. Allow fires under any adjacent trees.
- e. Discharge exhaust into foliage.
- f. Secure cable, chain or rope to trees or shrubs.
- g. Apply soil sterilants under pavement near existing trees.

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6. Where roots are exposed, they should be kept covered with the native soil or four layers of wetted, untreated burlap. Roots will dry out and die if left exposed to the air for too long.<sup>(4)</sup>
7. Route pipes into alternate locations to avoid conflict with roots.<sup>(4)</sup>
8. Where it is not possible to reroute pipes or trenches, the contractor is to bore beneath the dripline of the tree. The boring shall take place no less than 3 feet below the surface of the soil in order to avoid encountering “feeder” roots.<sup>(4)</sup>
9. Compaction of the soil within the dripline shall be kept to a minimum.<sup>(2)</sup> If access is required to go through the TPZ of a protected tree, the area within the TPZ should be protected from compaction either with steel plates or with 4” of wood chip overlaid with plywood.
10. Any damage due to construction activities shall be reported to the project arborist or city arborist within 6 hours so that remedial action can be taken.
11. Ensure upon completion of the project that the original ground level is restored

## **Appraised Values of Significant Trees on Site.**

See Addendum for calculations

Appraised Value of Tree #3 is \$10,700.00

Appraised Value of Tree #4 is \$1,520.00

**Total appraised value of all Significant trees      \$12,220.00**



Location of existing house, protected trees and their Tree Protection Zones

Location of proposed subdivision, new homes, protected trees  
and their Tree Protection Zones

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## Glossary

<b>Canopy</b>	The part of the crown composed of leaves and small twigs. <sup>(2)</sup>
<b>Cavities</b>	An open wound, characterized by the presence of extensive decay and resulting in a hollow. <sup>(1)</sup>
<b>Decay</b>	Process of degradation of woody tissues by fungi and bacteria through the decomposition of cellulose and lignin <sup>(1)</sup>
<b>Dripline</b>	The width of the crown as measured by the lateral extent of the foliage. <sup>(1)</sup>
<b>Genus</b>	A classification of plants showing similar characteristics.
<b>Root plate</b>	The point at which the trunk flares out at the base of the tree to become the root system.
<b>Species</b>	A Classification that identifies a particular plant.
<b>Standard height</b>	Height at which the girth of the tree is measured. Typically 4 1/2 feet above ground level

## References

- (1) Matheny, N.P., and Clark, J.P. Evaluation of Hazard Trees in Urban Areas. International Society of Arboriculture, 1994.
- (2) Harris, R.W., Matheny, N.P. and Clark, J.R.. Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines. Prentice Hall, 1999.
- (3) Carlson, Russell E. Paulownia on The Green: An Assessment of Tree Health and Structural Condition. Tree Tech Consulting, 1998.
- (4) Extracted from a copy of Tree Protection guidelines. Anon
- (5) T. D. Sydnor, Arboricultural Glossary. School of Natural Resources, 2000
- (6) D Dockter, Tree Technical Manual. City of Palo Alto, June, 2001



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## *Certification of Performance<sup>(3)</sup>*

I, Robert Weatherill 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 appraisal is stated in the attached report and the Terms and Conditions;
- \* That I have no current or prospective 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 member of the International Society of Arboriculture and a Certified Arborist. I have been involved in the practice of arboriculture and the care and study of trees for over 15 years.

*Signed*



Robert Weatherill  
Certified Arborist WE 1936a  
Date: 11/6/19

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## Terms and Conditions(3)

The following terms and conditions apply to all oral and written reports and correspondence pertaining to consultations, inspections and activities of Advanced Tree Care :

1. All property lines and ownership of property, trees, and landscape plants and fixtures are assumed to be accurate and reliable as presented and described to the consultant, either verbally or in writing. The consultant assumes no responsibility for verification of ownership or locations of property lines, or for results of any actions or recommendations based on inaccurate information.
2. It is assumed that any property referred to in any report or in conjunction with any services performed by Advanced Tree Care, is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations, and that any titles and ownership to any property are assumed to be good and marketable. Any existing liens and encumbrances have been disregarded.
3. All reports and other correspondence are confidential, and are the property of Advanced Tree Care and it's named clients and their assignees or agents. Possession of this report or a copy thereof does not imply any right of publication or use for any purpose, without the express permission of the consultant and the client to whom the report was issued. Loss, removal or alteration of any part of a report invalidates the entire appraisal/evaluation.
4. The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. Advanced Tree Care and the consultant assume no liability for the failure of trees or parts of trees, either inspected or otherwise. The consultant assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.
5. All inspections are limited to visual examination of accessible parts, without dissection, excavation, probing, boring or other invasive procedures, unless otherwise noted in the report. No warrantee or guarantee is made, expressed or implied, that problems or deficiencies of the plants or the property will not occur in the future, from any cause. The consultant shall not be responsible for damages caused by any tree defects, and assumes no responsibility for the correction of defects or tree related problems.
6. The consultant shall not be required to provide further documentation, give testimony, be deposed, or attend court by reason of this appraisal/report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by the consultant or in the fee schedules or contract.
7. Advanced Tree Care has no warrantee, either expressed or implied, as to the suitability of the information contained in the reports for any purpose. It remains the responsibility of the client to determine applicability to his/her particular case.
8. Any report and the values, observations, and recommendations expressed therein represent the professional opinion of the consultants, and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.
9. Any photographs, diagrams, graphs, sketches, or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphs material or the work product of any other persons is intended solely for the purpose of clarification and ease of reference. Inclusion of said information does not constitute a representation by Advanced Tree Care or the consultant as to the sufficiency or accuracy of that information.

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## Addendum

### Appraised Values of Regulated Trees

#### Trunk Formula Appraisal For Tree #1, Coast live oak Using CTLA Guide for Plant Appraisal, 9<sup>th</sup> Edition

Tree#	Species	DBH	Ht/Sp	Con Rating	Comments
3	Coast live oak <i>Quercus agrifolia</i>	26.8"	30/40	65	Good health and condition, some dead wood, <b>Significant</b>

From WCISA Species Classification and Group Assignment

"A Regional Supplement to the CTLA *Guide for Plant Appraisal*, 9<sup>th</sup> Edition."

**Coast live oak, *Quercus agrifolia***

**Species rating 1 = 90%, Nursery group 3. Northern California Subregion: Table 11**

Replacement Trunk diameter 2.20", Replacement Trunk area (TA<sub>R</sub>) 3.80 in<sup>2</sup>; cost/trunk in<sup>2</sup> \$45.46/in<sup>2</sup>,

Basic Price \$172.73

Installed cost \$600.00 for a 2.20" diameter, TA<sub>R</sub> 3.80 in<sup>2(1)</sup>

Single trunked Coast live oak DBH 26.8"

TA = 564.00 = 564 inches<sup>2</sup>

TA<sub>incr</sub> = TA - TA<sub>R</sub> 564 - 3.80 = 560.2

Basic Tree Cost = TA<sub>incr</sub> x Unit Tree Cost = 560.2 x 45.46 = \$25,466.69

**Condition 65%, Species 90%, Location 70%,**

**I have chosen 70% as species location based on site rating, contribution and placement**

$(25,466 + 600) \times 0.65 \times 0.90 \times 0.70 = \$10,674.31 = 10,700.00^{(2)}$

**Appraised Value of Tree #1 is \$10,700.00**

#### Notes

1) Since these values are based on 24" box trees I have used \$600 as my typical installed cost

2) Values over \$5000 rounded to nearest \$100. Values below \$5000 rounded to nearest \$10.

3) TA changes to ATA at diameters of 31 inches and greater

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## Trunk Formula Appraisal For Tree #2, Shamel ash Using CTLA Guide for Plant Appraisal, 9<sup>th</sup> Edition

Tree#	Species	DBH	Ht/Sp	Con Rating	Comments
4	Shamel ash <i>Fraxinus udhei</i>	24.0"	25/40	60	Fair health, poor condition, topped for utility, <b>Significant</b>

From WCISA Species Classification and Group Assignment

"A Regional Supplement to the CTLA *Guide for Plant Appraisal, 9<sup>th</sup> Edition.*"

**Shamel ash, *Fraxinus udhei***

**Species rating 4 = 30%, Nursery group 4. Northern California Subregion: Table 11**

Replacement Trunk diameter 2.46", Replacement Trunk area (TA<sub>R</sub>) 4.75 in<sup>2</sup>; cost/trunk in<sup>2</sup> \$36.36/in<sup>2</sup>,

Basic Price \$172.73

Installed cost \$600.00 for a 2.20" diameter, TA<sub>R</sub> 4.75 in<sup>2(1)</sup>

Single trunked Shamel ash DBH 24.0"

TA = 452.3 = 452 sq inches<sup>2</sup>

TA<sub>incr</sub> = TA - TA<sub>R</sub> = 452 - 4.75 = 447.25

Basic Tree Cost = TA<sub>incr</sub> x Unit Tree Cost = 447.25 x 36.36 = \$16,262.00

**Condition 60%, Species 30%, Location 50%,**

**I have chosen 50% as species location based on site rating, contribution and placement**

$(16262 + 600) \times 0.6 \times 0.30 \times 0.50 = \$1517.58 = 1520.00^{(2)}$

**Appraised Value of Tree #2 is \$1,520.00**

### Notes

- 1) Since these values are based on 24" box trees I have used \$600 as my typical installed cost
- 2) Values over \$5000 rounded to nearest \$100. Values below \$5000 rounded to nearest \$10.
- 3) TA changes to ATA at diameters of 31 inches and greater



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