**APPENDIX B** 

**ARBORIST REPORT** 

# ARBORIST REPORT-

Tree Survey & Preliminary Construction Impact Assessment

**70-80 North 27<sup>th</sup> Street** APN: 467-09-076 San Jose, CA 7/20/2022

Prepared for:

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Prepared by:



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## Table of Contents

SUMMARY	1
Background	1
Assignment	1
Limits of the Assignment	2
Purpose and use of the report	2
Resources	2
OBSERVATIONS	3-11
DISCUSSION	12
Species List	
Tree Evaluation and Recording Methods	
Condition Rating	13
Suitability for Preservation	13
Tree Protection Zone	14
Critical Root Zone	14
Root Disturbance Distance	15
Construction Impacts to Regulated Trees	
Impact Level	
Mitigation Measures for Subject Trees	
Tree Replacement Requirements	
CONCLUSION	
RECOMMENDATIONS	20

## Attachments: Appendix A - I

Appendix A – Tree Assessment Chart

- Appendix B Criteria for Tree Assessment Chart
- Appendix C --- Tree Location Map

Appendix D – Tree Survey, Aerial Image

- Appendix E Certificate of Performance
- Appendix F Bibliography

Appendix G - Glossary

Appendix H - Tree Protection Guidelines & Restrictions

- Protecting Trees During Construction
- Project Arborist Duties & Inspection Schedule
- Tree Protection Fencing
- Tree Protection Signs
- Monitoring
- Root Pruning
- Tree Work Standards & Qualifications
- City of San Jose Regulated Tree Definition

Appendix I - Assumptions & Limiting Conditions

#### SUMMARY

This report provides the following information:

- 1. A summary of the health and structural condition of 24 trees.
- 2. A preliminary evaluation of anticipated construction impacts to the trees.
- 3. Recommendations for retention or removal of assessed trees based on their condition and anticipated construction impacts.
- A six-story mixed use facility is proposed.
- Twenty -four trees within or near the project limits were surveyed.
- All the onsite trees will be highly impacted, and their removal will be necessary to accommodate the project.
- Most of the street trees fronting the property, will be moderately impacted, and can be incorporated into the project.
- The street trees moderately impacted will need mitigation methods to reduce construction impacts.
- Replacement trees will be required for trees recommended for removal.
- The *Tree Assessment Chart*, Appendix A is the condensed reference guide to inform all tree management decisions for the trees evaluated.

#### Background

Plans will be submitted to the City of San Jose Planning Department, for construction of six story mixed use, facility. Ms. Melanie Griswold, of Hestia Real Estate Inc., requested my services, to assess the condition of twenty-three trees within or near the project limits, the construction impacts that may affect them, and provide tree protection specifications for retained trees. Further, to provide a report with my findings and recommendations to meet City of San Jose planning requirements.

#### Assignment

Provide an arborist report that includes an assessment of the trees within the project area. The assessment is to include the species, size (trunk diameter, height and canopy diameter spread), condition (health and structure), and suitability for preservation ratings.

To complete this assignment, the following services were performed:

- **Tree Resource Evaluation:** Survey, evaluate and assign suitability for preservation ratings for subject trees.
- Plan Review: Reviewed provided plans including: Site Development Plan set for 70-80 North 27<sup>th</sup> Street, San Jose., by Ruggeri-Jensen-Azar, dated 2/15/2022.
- **Construction Impact Assessment:** Combine tree resource data with anticipated construction impacts, to provide recommendations for removal or retention of trees.
- Mapping: Tree canopies were plotted onto: Preliminary Grading Plan, Sheet C3 by, Ruggeri-Jensen-Azar, dated 2/15/2022, and a Tree Location Map, Appendix C, was created.

#### Limits of the Assignment

The information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection on 7/12/2022.

The inspection is limited to visual examination of accessible items without climbing, dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in questions may not arise in the future.

#### Purpose and use of the report

The report is intended to identify all the trees within the plan area that could be affected by a project. The report is to be used by the developer, their agents, and the City of San Jose as a reference for existing tree conditions and to help satisfy the City of San Jose planning requirements.

#### Resources

All information within this report is based on site plans as of the date of this report. Resources are as follows:

- Site Development Plan Set for 70-80 North 27<sup>th</sup> Street, San Jose., by Ruggeri-Jensen-Azar, dated 2/15/2022.
- Site Visit, Tree Survey & Condition Evaluation on 7/12/2022 at 70-80 North 27<sup>th</sup> Street.
- City of San Jose Municipal Code Chapter 13.28 Street Trees, Hedges and Shrubs, (Applicable sections), & Chapter 13.32 – Tree Removal Controls, (Applicable sections).

## **OBSERVATIONS**

The one-acre parcel is on a flat grade and contains a multi-tenant commercial building, parking lot, and trees planted around the lot perimeter, (Image #1). Commercial buildings are adjacent to the north and south. A railroad right-of way is located to the east, with North 27<sup>th</sup> Street to the west.

I surveyed a total of 24 trees. All the trees surveyed are regulated by the City of San Jose, with permitting requirements dependent on their sub-category within the ordinance. Tree populations surveyed include fifteen trees on the subject parcel, six street trees fronting North 27<sup>th</sup> Street, and three trees to the south in the McDonalds parking lot, with canopies overhanging the subject parcel. A hedgerow of xylosma shrubs is planted along the perimeter, in the rear of the property adjacent to the railroad right-of-way.

Three palm trees on the subject parcel are ordinance size trees, with the remainder of on-site trees below ordinance size. An ordinance size tree is any tree 12 inches or greater in diameter measured at 4.5 feet above grade. The three trees on the adjacent parcel (MacDonalds), are all ordinance size.

Six trees surveyed are street trees. Street trees Per the Municipal Code Section 13.28.010 "A "street tree" is any tree planted along a public street."



Image #1- Parcel boundary in red with existing building, adjacent to North 27<sup>th</sup> Street. On-site trees are planted around the property perimeter. Street trees are between North 27<sup>th</sup> street and the property boundary.

Four crape myrtle grow in a planter along the north fence line, (Image #2). A fan palm grows in the northeast property corner, (Image #2),



Image #2- Trees T1 – T4, crape myrtle and T5, fan palm.

The young myrtles, T1-T4, have well developed structure and are in good condition.

The trunk and lower fronds of fan palm, T5, are blackened. Apparently a fire burned adjacent to the palm but does not appear to have significantly affected the tree. The palm is in fair condition.

A hedgerow of xylosma has been planted along the east property line as a screening shrub from the railroad right-of-way, (Image #3).

Three purple-leaf cherry plums are planted at evenly spaced intervals between the xylosma hedge, (Image #3).



Image #3- Trees T6 and T7 purple-leaf plum, growing between hedgerow of xylosma shrubs. Tree T8, purple-leaf plum not visible, grows near top of image.

The purple-leaf plums are in good condition.

Four crape myrtle, trees T9, T11, T14,T15, a glossy privet, T10 and two fan palms, T12 and T13, grow in a planter along the south fence line, (Image #4).



Image #4 – Trees T11, crape myrtle and T12 and T13, fan palm, grow in landscape planter along south fence line. Also note overhanging canopy of trees T2-A & T3A, (red outline), ornamental pear, which grow on the MacDonalds property.

The four crape myrtle growing along the south fence line are in fair or good condition. The glossy privet is in fair condition, and the two fan palms are in good condition.

Tree Survey & Preliminary Impact Assessment 70-80 North 27<sup>th</sup> Street, San Jose

7/20/2022 Page 7

Six ornamental pear street trees grow in sidewalk cutouts along North 27th Street, (Image #5).



Image #5 – Street trees T16-T21, ornamental pear.

Most of the street trees are in fair condition. Some show signs of water deficit as evidenced by tip dieback. All have minor to moderate fire blight infection as evidenced by groups of dead leaves at branch tips. Fire blight is a common bacterial infection on ornamental pear.

One street tree, T18, has significant dieback throughout the canopy and is in fair to poor condition. The trees health should be monitored. It may be desireble to remove and replace this tree with a healthy specimen, if it continues to decline.

Three street trees T16,T17 & T18 are lifting the sidewalk. Trip hazards are occuring in multiple locations at tree T16, (Image #6).



Image #6 – Tree T16, ornamental pear. The lifted sidewalk is creating significant trip hazards in three locations.

The trees rooting area is restricted, shallow rooting has developed, and the sidewalk is lifted by root diameter expansion.

Shallow roots and a restricted rooting area also causing significant sidewalk lifting adjacent to tree T17, (Image #7).



Image #7 – Tree T17, ornamental pear. Note sidewalk lifting.

The sidewalk lifting above the curb from tree T17, is a significant trip hazard for people getting in and out of their vehicles.

There are three "ordinance size" trees on the adjacent MacDonalds property to the south, with canopies that overhang the subject property. Tree T1-A grows near the entrance driveway to 70-80 North 27<sup>th</sup> Street, (Image #8).



Image #8 – Tree T1-A, ornamental pear. Note overhanging canopy, (in red).

The ornamental pear is in fair condition. Its canopy overhangs the subject property by about 10-feet.

Trees T2-A and T3-A grow near the southeast corner of the subject property. Their canopies overhang the subject property, (Image #9).



Image #9 – Trees T2-A and T3-A, ornamental pear. Grow on adjacent property and have overhanging canopies, (in red).

The two ornamental pears are in fair condition.

## DISCUSSION Species List - Regulated Trees

ON SITE TREE	S: 15 Trees	
8	crape myrtle	(Lagerstroemia indica)
3	fan palm purple-leaf plum	(Washingtonia spp.) (Prunus cerasifera)
1	glossy privet	(Ligustrum lucidum)
STREET TREE	S: 6 Trees ornamental pear	(Pyrus calleryana)
TREES ON AD	JACENT PROPERTY: 3 Trees	
3	ornamental pear	(Pyrus calleryana)

A complete list of trees is in Appendix A – Tree Assessment Chart.

#### Tree Evaluation and Recording Methods

Site evaluations were made on 7/12/2022. *The inventory included all trees near or within the project limits.* The health and structural **condition** of each tree was assessed and recorded. Based on the trees health and structural condition, each trees **suitability for preservation** was rated and recorded. The recorded data is included in the *Tree Assessment Chart, Appendix A,* of this report. Detailed criteria for each assessment rating category are included in Appendix B – *Criteria for Tree Assessment Chart.* 

#### Condition Rating - Regulated Trees

A trees condition is determined by an assessing both the **health** and **structure**, then combining the two factors to reach a *condition rating*. Tree condition is rated as poor, fair or good. The quantity of trees assigned for each category (good, fair or poor), is indicated below:

#### **Tree Condition Rating**

- Good 10
- Fair 13
- Poor 1

#### Suitability for Preservation - Regulated Trees

1

A trees suitability for preservation is determined based on its health, structure, age, species characteristics and longevity using a scale of good, fair or poor. The quantity of trees assigned to each category (good, fair or poor), is listed below.

#### **Suitability Rating**

- Good 11
- Fair 12
- Poor -

#### **Tree Protection Zone**

The tree protection zone (TPZ), is a defined area (radius from trunk), within which certain activities are prohibited or restricted to minimize potential injury to designated trees during construction.

The size of the optimal TPZ can be determined by a formula based on 1) trunk diameter 2) species tolerance to construction impacts, and 3) tree age (Matheny, N. and Clark, J 1998). In some instances, tree drip line is used as the TPZ. Development constraints can also influence the final size of the tree protection zone.

Fencing is installed to delineate the (TPZ), and to protect tree roots, trunk, and scaffold branches from construction equipment. *The fenced protection area may be smaller than the optimal or designated TPZ area in some circumstances.* Tree protection may also involve the armoring of the tree trunk and/or scaffold limbs with barriers to prevent mechanical damage from construction equipment. *See Tree Protection Guidelines & Restrictions –* Appendix E.

Once the TPZ is delineated and fenced (prior to any site work, equipment and materials move in), construction activities are only to be permitted within the TPZ if allowed for and specified by the project arborist.

Where tree protection fencing cannot be used, or as an additional protection from heavy equipment, tree wrap may be used. Wooden slats at least one inch thick are to be bound securely, edge to edge, around the trunk. A single layer or more of orange plastic construction fencing is to be wrapped and secured around the outside of the wooden slats. Major scaffold limbs may require protection as determined by the City arborist or Project arborist. Straw wattle may also be used as a trunk wrap and secured with orange plastic fencing.

Data has been entered in the *Tree Assessment Chart – Appendix A,* which indicates the optimal Tree Protection Zone for each tree.

Additional general tree protection guidelines are included in *Tree Protection Guidelines & Restrictions* – Appendix G.

#### **Critical Root Zone**

The CRZ is the biological limit of a tree's capacity to recover from root loss. It is "the area of soil around a tree where the minimum number of roots that are biologically essential to the structural stability and health of the tree are located. There are no universally accepted methods to calculate the CRZ." (Clark, Metheny, Smiley, et al, *The Tree Protection Zone & the Critical Root Zone*, 12/2021). The methods utilized to determine the Critical Root Zone are varied and can be based on professional guidelines and/or industry standards. Criteria such as trunk diameter, tree age and vigor, species tolerance, tree architecture and existing site constraints are commonly used criteria.

#### Critical Root Zone, Continued:

Using this information, the arborist can find the distance from the trunk that should be protected per unit of trunk diameter. The CRZ does not always represent a radius around the tree. When necessary, the area can be offset or shaped in a manner that accepts tree canopy constraints or existing conditions.

For purposes of this report the CRZ is the minimum tolerable distance between the trunk, and excavation that requires root cutting. I have estimated it to be five times the trunk Diameter at Breast Height, (DBH is 4.5' above grade). For example, if a tree has a one-foot trunk diameter, the CRZ extends to five feet from the trunk.

If encroachment into the CRZ or TPZ is required to retain the tree during development, the arborist must provide alternative construction methods or preconstruction treatments to reduce impacts.

#### **Root Disturbance Distance**

No one can estimate and predict with absolute certainty what distance from a tree, a soil disturbance such as excavation for construction should be, to ensure it will not significantly affect tree stability or health. Or to what degree, (low, moderate or high), a tree might be impacted. There are simply too many variables involved that we cannot see or anticipate. However, three times the D.B.H. (diameter at breast height), is a widely accepted minimum used in the industry for root disturbance, *on one side of the trunk*, and is supported by several research studies including (Smiley, Fraedich & Hendrickson 2002, Bartlett Tree Research Laboratories). This distance is often used during the design and planning phases of a project in order to estimate root loss due to construction activities. This distance is a guideline only and should be increased for trees with significant leans, decay or other structural problems.

The ISA, International Society of Arboriculture- <u>Root Management</u> (2017) publication recommends, "cutting roots at a distance greater than six times the trunk diameter (DBH) minimizes the likelihood of affecting both health and stability. This recommendation is given further direction by the companion publication, A.N.S.I. (*American National Standard*) A300 (Part 8)- 2013 <u>Root Management</u>, when roots are cut in a *non-selective* manner, i.e. in a straight line on one side of a tree. It says, if the cutting is "within six times the trunk diameter (DBH), mitigation shall be recommended". Further, A.N.S.I. recommends the "minimum distance from the trunk for root cutting should be adjusted according to trunk diameter, species tolerance to root loss, tree age, health and site condition".

In general, root cutting that occurs at a distance less than ten times the diameter of a tree should be undertaken by hand digging and hand (or Sawzall), root pruning. These methods help mitigate root loss impacts.

#### Construction Impacts to Regulated Trees

Based on the preliminary site plan, impacts to all trees on the parcel will be high and their removal will be necessary. The existing building will be demolished, and grading will encompass the entire lot. There will be partial subterranean parking, with excavation and grading that will occur at significant depths to near the lot perimeter.

Impacts to the six ornamental pear street trees will be moderate to high.

Street Tree T16, ornamental pear, will be less than one foot from the proposed driveway, will suffer extensive root loss beyond what it can tolerate, and its removal will be necessary, (Image #10).

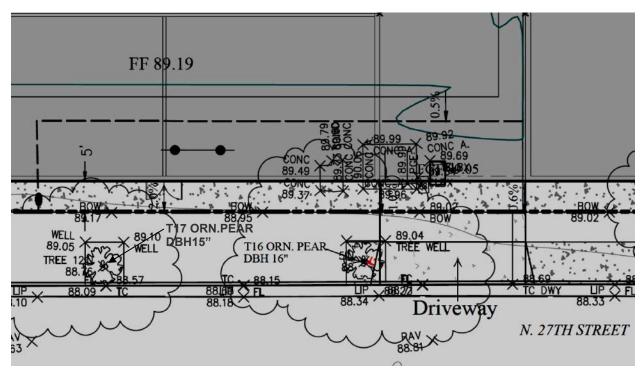


Image #10 – Screen shot from Preliminary grading and drainage, Sheet C3. Tree T16, ornamental pear. Tree is located at edge of proposed driveway. The trunk will be within the footprint of over- excavation and forming. The canopy of tree T17, ornamental pear will need minor clearance pruning to allow construction of new building.

#### Construction Impacts to Regulated Trees, Continued: Impacts to the remaining street trees will be moderate. Elements impacting the trees include:

Demolition of existing concrete driveway, sidewalk, curb, and gutter.

Excavation for new driveway, sidewalk, curb, and gutter.

Construction of building.

Excavation for utilities (fire service line, sanitary sewer lateral, storm drain line), (Image #11).

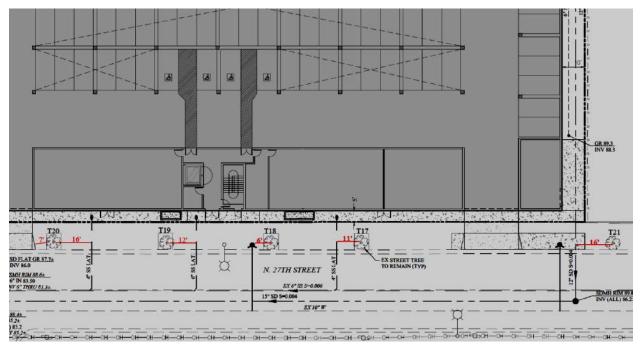


Image #11 – Screenshot from Preliminary Utility Plan, Sheet C4. Trees T17 -T21 ornamental pear, and distance to utility laterals.

Some root loss will occur from the construction elements, the ornamental pears can tolerate the loss, and will need tree protection measures, to reduce root loss impacts.

Street tree T17, ornamental pear, will need minor clearance pruning to allow construction of the new building, (Image #10).

Impacts to the ornamental pears on the adjacent property will be moderate. Some root loss may occur from the excavation and grading for the new building. Some canopy loss will occur as the trees have overhanging branches that will need pruning to allow construction of the new building.

#### Impact Level – Regulated Trees

Impact level rates the degree a tree may be impacted by construction activity and is primarily determined by how close the construction procedures occur to the tree. Construction impacts are rated as low, moderate, high. The quantity of trees assigned for each category (low, moderate, high), is indicated below:

#### Impact Rating

- Low 0
- Moderate 8
- High 16

Regulated Trees Recommended for Removal Due to Construction Impacts Sixteen Trees –

Tree Number	Species	Ordinance Size?
T1-T4, T9, T11, T14 & T15,	crape myrtle	No
T5, T12 & T13	fan palm	Yes
Т6-Т8	purple-leaf cherry	No
T10	glossy privet	No
T16	ornamental Pear	Street Tree

#### Mitigation Measures for Retained Trees

If encroachment into the CRZ or TPZ is required to retain the tree during development, the arborist must provide alternative construction methods or preconstruction treatments to reduce impacts.

The trees retained on this project will require some or all the following methods to protect them from the impacts described above and to minimize root loss during the construction phases.

- Tree Protection Fencing
- Hand trenching
- Supervised root pruning

#### Tree Replacement Requirements

The City of San Jose requires replacement trees for trees removed.

For trees on commercial or industrial properties, a Tree Removal permit is required for *ordinance size trees,* or a *permit adjustment* is required if the tree is smaller than ordinance sized. A Tree Removal permit is required for any size Street Tree.

The proposed development site at 70-80 North 27th Street has three ordinance size trees, and twelve trees smaller than ordinance size, proposed for removal.

Development as proposed would also require the removal of one Street Tree.

#### 13.32.110 - Action on a Permit.

C. The Director or the Planning Commission on appeal, if applicable, shall impose as a condition on the issuance of any permit for the removal of any tree the requirement that a suitable replacement tree or trees as determined by the Director or the Planning Commission on appeal be or cause to be provided, installed and maintained, at no cost to the City: on-site by the permittee; or if on-site replacement is not feasible, at another site within the City of San José in the manner determined by the Director or the Planning Commission on appeal.

#### D. The replacement tree requirement set forth in this Section shall be roughly

**proportionate** to the tree replacement needed to alleviate and address the burdens and other impacts created by allowing the removal of the tree or trees under the permit.

E. On-site tree replacement shall include a requirement that any on-site replacement tree that fails within three years after planting shall be promptly replaced. Off-site replacement shall include similar assurance of longevity of the replacement tree(s).

**Note:** Trees 12-inches in diameter or greater, shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.

## CONCLUSION

- A six-story mixed use facility is proposed.
- Twenty -four trees within or near the project limits were surveyed.
- All the onsite trees will be highly impacted, and their removal will be necessary to accommodate the project.
- Most of the street trees fronting the property, will be moderately impacted, and can be incorporated into the project. This includes street trees T17-T21, ornamental pear.
- One street tree T16, ornamental pear, will be highly impacted by the project and its removal will be necessary.
- The street trees moderately impacted will need mitigation methods to reduce construction impacts.
- Three trees on the adjacent property, T1-A, T2-A & T3-A, ornamental pear, will be moderately impacted, and can be incorporated into the project.
- Replacement trees will be required for trees recommended for removal.
- The *Tree Assessment Chart*, Appendix A is the condensed reference guide to inform all tree management decisions for the trees evaluated.

## RECOMMENDATIONS

- 1. Obtain all necessary permits prior to removing or significantly altering any trees on site.
- 2. Remove highly impacted trees recommended for removal.
- 3. Plant replacement trees as required according to City of San Jose Mitigation Requirements, section, 13.32.110 *Action on a Permit.*
- 4. For fire blight control on ornamental pear street trees: Prune out infected branches in summer or winter. Apply a chemical control once blooming begins in the spring, and at successive seven-day intervals until the end of blooming period.

Respectfully submitted,

Kurt. Foita

Kurt Fouts ISA Certified Arborist WE0681A



#### Tree Assessment Chart - Appendix A

				Suitabil	ity for P	reservatior	n Ratings:		Retention or Removal Code:			
				in good heal r longevity or		uctural condi	tion with		RT: Retain Tree RI: Remove Due to Construction Impacts			
				n fair health a with treatme			lefects that may		I.M. Impacts Can Be Mitigated With Pre-Construction Treatments R.C. Remove Due to Condition			
				in poor healt bated with tr		with poor stru	ucture that canno	t be	<b>Regulated Tree City of San Jose, Chapter 13:32 - Ordinance Size Tree -</b> Any tree 12 inches or greater in diameter measured at 4.5 feet above grade. Multi-trunk is combined measurement of all trunks. Any tree regardless of size located on multifamily, commercial or industrial property.			
Tree #	Species	Trunk Diameter @ 54 inches a.g.	Ordinance Size Tree	Crown Height & Spread (Diameter)	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (in feet from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments	
					Trees o	on 70-80 Nort	h 27th Avenue					
T1	crape myrtle (Lagerstroemia indica )	5"	No	20'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	Young tree.	
Т2	crape myrtle	6"	No	20'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	Young tree.	
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Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 54 inches a.g.	Ordinance Size Tree	Crown Height & Spread (Diameter)	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (in feet from trunk)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments		
тз	crape myrtle	6"	No	20'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	Young tree.		
Т4	crape myrtle	6"	No	20'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	Young tree.		
Т5	fan palm (Washingtonia spp .)	37"	Yes	40'X10'	Fair	Fair	Fair	10'	High (Within grading limits)	R.I.	ire damage on trunk and lower fronds.		
т6	purple-leaf cherry plum (Prunus cerasifera 'Atropurpurea ')	7"	No	15'X10'	Good	Fair	Good	10'	High (Within grading limits)	R.I.	Young tree.		
т7	purple-leaf cherry plum	6"	No	20'X10'	Good	Fair	Good	10'	High (Within grading limits)	R.I.	Young tree.		
Т8	purple-leaf cherry plum	9"	No	20'X10'	Fair	Fair	Good	10'	10' High (Within grading limits) R.I. Young tre		Young tree.		
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Tree Assessment Cha	art - Appendix A
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Tree #	Species	Trunk Diameter @ 4.5'	Ordinance Size Tree	Crown Height & Spread (Diameter)	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (in feet)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
					Trees on i	70-80 North	27th Avenue				
т9	crape myrtle	6"	No	10'x10'	Fair	Fair	Fair	10'	High (Within grading limits)	R.I.	Young tree
T10	glossy privet ( <i>Ligustrum lucidum</i> )	5"	No	15'X15'	Fair	Fair	Fair	10'	High (Within grading limits)	R.I.	
T11	crape myrtle	5"	No	10'X10'	Fair	Fair	Fair	10'	High (Within grading limits)	R.I.	Young tree.
T12	fan palm	24"	Yes	60'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	Remove dead lower fronds.
T13	fan palm	25"	Yes	60'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	
T14	crape myrtle	6"	No	15'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	
T15	crape myrtle	6"	No	15'X10'	Good	Good	Good	10'	High (Within grading limits)	R.I.	
820 82 83 83 ku	6 Monterey Avenue pitola, CA 95010 1-359-3607 tfouts1@outlook.com				Page 3 of 5				7/20/2022		

Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 4.5'	Ordinance Size Tree	Crown Height & Spread (Diameter)	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (in feet)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
					Street Tre	ees					
T16	ornamental pear ( <i>Pyrus calleryana</i> )	16"	Yes	40'X30'	Good	Fair	Fair	20'	High ( <b>Root loss</b> , excavation)	R.I.	< 1' from new driveway. Tip dieback. Minor fire blight infection. Mistletoe. Restricted rooting area, lifting sidewalk.
T17	ornamental pear	15"	Yes	45'X30'	Fair	Fair	Fair	20'	Moderate ( <b>Root</b> loss-excavation, canopy loss, clearance pruning)	R.T.	Tip dieback. Moderate fire blight infection. Restricted rooting area, lifting sidewalk.
T18	ornamental pear	10"	No	35'X20'	Fair-Poor	Fair	Fair	15'	Moderate ( <b>Root</b> loss-excavation)	R.T.	Significant canopy dieback. Moderate fire blight infection. Restricted rooting area, lifting sidewalk.
T19	ornamental pear	9"	No	30'X20'	Fair	Fair	Fair	15'	Moderate ( <b>Root</b> loss-excavation)	R.T.	Moderate fire blight infection.
т20	ornamental pear	9"	No	40'x15'	Fair-Poor	Fair	Fair	15'	Moderate ( <b>Root</b> loss-excavation)	<b>К</b> К Г	Significant fire blight infection. Dieback throughout canopy.
T21	ornamental pear	10"	Yes	35'X25'	Fair	Fair	Fair	20'	Moderate ( <b>Root</b> loss-excavation)	R.T.	Minor fire blight infection.
Reporter Consultant Reporter Consultant 826 Monterey Avenue Capitola, CA 95010 831-359-3607 kurtfouts1@outlook.com							Page 4 of 5				7/20/2022

## Tree Assessment Chart - Appendix A

Tree #	Species	Trunk Diameter @ 4.5'	Ordinance Size Tree	Crown Height & Spread (Diameter)	Health Rating	Structural Rating	Suitability for Preservation (Based Upon Condition)	Tree Protection Zone (in feet)	Construction Impacts (Rating & Description)	Retention or Removal Code	Comments
				Tr	ees on A	djacent Pro	perty				
T1-A	ornamental pear	20"	Yes	40'X25'	Fair	Fair	Fair	20'	Moderate ( <b>Root</b> loss, excavation, Canopy loss, clearance pruning)	R.T.	Moderate fire blight infection. 2-3" diameter limbs overhang subject property.
T2-A	ornamental pear	12"	Yes	40'X35'	Fair	Fair	Fair	20'	Moderate ( <b>Root</b> loss, excavation, Canopy loss, clearance pruning)	R.T.	Minor fire blight infection. Multiple 3-5" diameter limbs overhang subject property.
ТЗ-А	ornamental pear	19"	Yes	50'X35'	Fair	Fair	Fair	20'	Moderate ( <b>Root</b> loss, excavation, Canopy loss, clearance pruning)	R.T.	Moderate fire blight infection. 2-3" diameter limbs overhang subject property.
Cap 831	REAL Consultant REAL C						Page 5 of 5				7/20/2022

#### APPENDIX B - CRITERIA FOR TREE ASSESSMENT CHART

Following is an explanation of the data used in the tree evaluations. The data is incorporated in the *Tree Assessment Chart, Appendix A.* 

#### Trunk Diameter and Number of Trunks:

Trunk diameter as measured at 4.5 feet above grade. The number of trunks refers to a single or multiple trunked tree. Multiple trunks are measured at 4.5 feet above grade.

#### Health Ratings:

- Good: A healthy, vigorous tree, reasonably free of signs and symptoms of disease
- <u>Fair:</u> Moderate vigor, moderate twig and small branch dieback, crown may be thinning and leaf color may be poor
- <u>Poor:</u> Tree in severe decline, dieback of scaffold branches and/or trunk, most of foliage from epicormics

#### Structure Ratings:

- Good: No significant structural defects. Growth habit and form typical of the species
- Fair: Moderate structural defects that might be mitigated with regular care
- Poor: Extensive structural defects that cannot be abated.

#### **Relative Age:**

I estimated tree age as young, semi-mature, mature, or over-mature.

#### Suitability for Preservation Ratings:

Rating factors:

<u>Tree Health:</u> Healthy vigorous trees are more tolerant of construction impacts such as root loss, grading, and soil compaction, then are less vigorous specimens.

<u>Structural integrity</u>: Preserved trees should be structurally sound and absent of defects or have defects that can be effectively reduced, especially near structures or high use areas.

<u>Tree Age:</u> Over mature trees have a reduced ability to tolerate construction impacts, generate new tissue and adjust to an altered environment. Young to maturing specimens are better able to respond to change.

<u>Species response:</u> There is a wide variation in the tolerance of individual tree species to construction impacts.

Rating Scale:

<u>Good:</u> Trees in good health and structural condition with potential for longevity on the site

<u>Fair:</u> Trees in fair health and/or with structural defects that may be reduced with treatment procedures.

<u>Poor:</u> Trees in poor health and/or with poor structure that cannot be effectively abated with treatment. Trees can be expected to decline or fail regardless of construction impacts or 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.

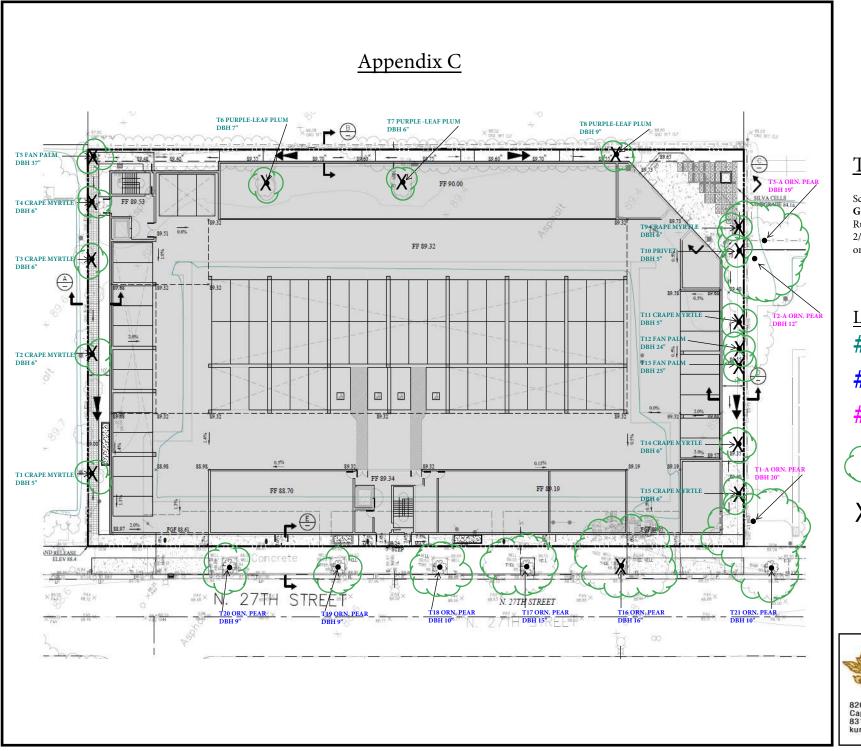
#### Construction Impacts:

Rating Scale:

<u>High:</u>	Development elements proposed that are located within the Tree Protection Zone that would severely impact the health and /or stability of the tree. The tree impacts cannot be mitigated without design changes. The tree may be located within the building footprint.
<u>Moderate:</u>	Development elements proposed that are located within the Tree Protection Zone that will impact the health and/or stability of the tree and can be mitigated with tree protection treatments.
Low:	Development elements proposed that are located within or near the Tree Protection Zone that will have a minor impact on the health of the tree and can be mitigated with tree protection treatments.
<u>None:</u>	Development elements will have no impact on the health and stability of the Tree.

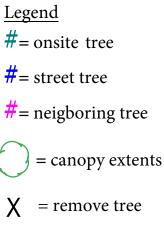
#### Tree Protection Zone (TPZ):

Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, particularly during construction or development.



## Tree LocationMap

Screen shot from **Preliminary Grading Plan**, Sheet C3 by Ruggeri,Jensen & Azar, dated 2/15/2022. For illustration purposes only.







# Certificate of Performance

I, Kurt Fouts, certify:

That I have personally inspected the tree(s) and/or the property referred to in this report and have stated my findings accurately to the best of my professional judgement.

- 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 were developed and prepared according to commonly accepted arboricultural practices.
- 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 an International Society of Arboriculture Certified Arborist and carry an International Society of Arboriculture Tree Risk Assessment Qualification. I have been involved in the practice of arboriculture and the care and study of trees for more than 20 years.

Signed: Kurt Fouts

Date: 7/20/2022

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# **Glossary of Terms**

Basal rot: decay of the lower trunk, trunk flare, or buttress roots.

Canker: Localized diseased area on stems, roots and branches. Often sunken and discolored.

**Critical Root Zone (CRZ):** Area of soil around a tree where a minimum number of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of the DBH, but because root growth can be asymmetric due to site conditions, on-site investigation may be required.

**Codominant branches/stems:** Forked branches (or trunks), nearly the same size in diameter, arising from a common junction and lacking a normal branch union, may have included bark.

**Crown:** Upper part of a tree, measured from the lowest branch, including all branches and foliage.

**Defect:** An imperfection, weakness, or lack of something necessary. In trees defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.

Diameter at breast height (DBH): Measurement of trunk diameter at 4.5 feet above grade.

Frass: Fecal material and/or wood shavings produced by insects.

**Included Bark Attachments (crotches):** Branch/limb or limb /trunk, or codominant trunks originating at acute angles from each other. Bark remains between such crotches, preventing the development of axillary wood. The inherent weakness of such attachments increases with time, through the pressure of opposing growth and increasing weight of wood and foliage, often resulting in failure.

Live Crown Ratio (LCR): Ratio of the the crown length (live foliage), to total tree height.

**Scaffold branches:** Permanent or structural branches that form the scaffold architecture or structure of a tree.

**Suppressed:** Trees that have been overtopped and occupy an understory position within a group or grove of trees. Suppressed trees often have poor structure.

**Tree Protection Zones (TPZ):** Defined area within which certain activities are prohibited of restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

**Trunk flare:** Transition zone from trunk to roots where the trunk expands into the buttress or structural roots.

This Glossary of Terms was adapted from the *Glossary of Arboricultural Terms* (ISA, 2015)

#### Appendix H - TREE PROTECTIONGUIDELINES AND RESTRICTIONS

#### Protecting Trees During Construction:

- Before the start of site work, equipment or materials move in, clearing, excavation, construction, or other work on the site, every tree to be retained shall be securely fenced- off as delineated in approved plans. Such fences shall remain continuously in place for the duration of the work undertaken in connection with the development.
- 2) If the proposed development, including any site work, will encroach upon the tree protection zone, special measures shall be utilized, as approved by the project arborist, to allow the roots to obtain necessary oxygen, water, and nutrients.
- 3) Underground trenching shall avoid the major support and absorbing tree roots of protected trees. If avoidance is impractical, hand excavation undertaken under the supervision of the project arborist may be required. Trenches shall be consolidated to service as many units as possible. Boring/tunneling under roots should be considered as an alternative to trenching.
- Concrete or asphalt paving shall not be placed over the root zones of protected trees, unless otherwise permitted by the project arborist.
- Artificial irrigation shall not occur within the root zone of native oaks, unless deemed appropriate on a temporary basis by the project arborist to improve tree vigor or mitigate root loss.
- 6) Compaction of the soil within the tree protection zone shall be avoided.
- 7) Any excavation, cutting, or filling of the existing ground surface within the tree protection zone shall be minimized and subject to such conditions as the project arborist may impose. Retaining walls shall likewise be designed, sited, and constructed to minimize their impact on protected trees.
- 8) Burning or use of equipment with an open flame near or within the tree protection zone shall be avoided. All brush, earth, and other debris shall be removed in a manner that prevents injury to the tree.
- 9) Oil, gas, chemicals, paints, cement, stucco or other substances that may be harmful to trees shall not be stored or dumped within the tree protection zone of any protected tree, or at any other location on the site from which such substances might enter the tree protection zone of a protected tree.
- 10) Construction materials shall not be stored within the tree protection zone of a protected tree.

Project Arborist Duties and Inspection Schedule:

The project arborist is the person(s) responsible for carrying out technical tree inspections, assessment of tree health, structure and risk, arborist report preparation, consultation with designers and municipal planners, specifying tree protection measures, monitoring, progress reports and final inspection.

A qualified project arborist (or firm) should be designated and assigned to facilitate and insure tree preservation practices. He/she/they should perform the following inspections:

Inspection of site: Prior to equipment and materials move in, site work, demolition, landscape construction and tree removal: The project arborist will meet with the general contractor, architect / engineer, and owner or their representative to review tree preservation measures, designate tree removals, delineate the location of tree protection fencing, specify equipment access routes and materials storage areas, review the existing condition of trees and provide any necessary recommendations.

Inspection of site: During excavation or any activities that could affect trees: Inspect site during any activity within the Tree Protection Zones of preserved trees and any recommendations implemented. Assess any changes in the health of trees since last inspection.

<u>Final Inspection of Site:</u> Inspection of site following completion of construction. Inspect for tree health and make any necessary recommendations.

Kurt Fouts shall be the Project Arborist for this project. All scheduled inspections shall include a brief Tree Monitoring report, documenting activities and provided to the City Arborist.

#### **Tree Protection Fencing**

Tree Protection fencing shall be installed prior to the arrival of construction equipment or materials. Fence shall be comprised of six -foot chain link fence mounted on eight - foot tall, 1 and 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced on a minimum of 10-foot centers. Once established, the fence must remain undisturbed and be maintained throughout the construction process until final inspection.

A final inspection by the City Arborist at the end of the project will be required prior to removing any tree protection fencing.

#### **Tree Protection Signs**

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited.

#### Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

#### **Root Pruning**

Root pruning shall be supervised by the project arborist. When roots over two inches in diameter are encountered they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

#### Tree Work Standards and Qualifications

All tree work, removal, pruning, planting, shall be performed using industry standards of workmanship as established in the Best Management Practices of the International Society of Arboriculture (ISA) and the American National Standards Institute series, *Safety Requirements in Arboriculture Operations* ANSI Z133-2017,

Contractor licensing and insurance coverage shall be verified.

During tree removal and clearance, sections of the Tree Protection Fencing may need to be temporarily dismantled to complete removal and pruning specifications. After each section is completed, the fencing is to be re-installed.

Trees to be removed shall be cut into smaller manageable pieces consistent with safe arboricultural practices, and carefully removed so as not to damage any surrounding trees or structures. The trees shall be cut down as close to grade as possible. Tree removal is to be performed by a qualified contractor with valid City Business/ State Licenses and General Liability and Workman's Compensation insurance.

#### Development Site Tree Health Care Measures

RECOMMENDED TO PROVIDE OPTIMUM GROWING CONDITIONS, PHYSIOLOGICAL INVIGORATION AND STAMINA, FOR PROTECTION AND RECOVERY FROM CONSTRUCTION IMPACT.

Establish and maintain TPZ fencing, trunk and scaffold limb barriers for protection from mechanical damage, and other tree protection requirements as specified in the arborist report.

Project arborist to specify site-specific soil surface coverings (wood chip mulch or other) for prevention of soil compaction and loss of root aeration capacity.

Soil, water and drainage management is to follow the ISA BMP for "Managing Trees During Construction" and the ANSI Standard A300(Part 2)- 2011 Soil Management (a. Modification, b. 'Fertilization, c. Drainage.)

Fertilizer / soil amendment product(s) amounts and method of application to be specified by certified arborist.

# City of San Jose – Protected Tree

# **Ordinance-Size Trees**

An ordinance-size tree on private property is either:

Single Trunk – 38 inches or more in circumference at 4.5 feet above ground, or

Multi-Trunk – The combined measurements of each trunk circumference, at 4.5 feet above ground, add up to 38 inches or more in circumference.

#### ASSUMPTIONS AND LIMITING CONDITIONS

- 1. Any legal description provided by the appraiser/consultant is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as the quality of any title.
- 2. The appraiser/consultant can neither guarantee nor be responsible for accuracy of information provided by others.
- 3. The appraiser/consultant shall not be required to give testimony or to attend court by reason of this appraisal 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 appraisal/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 person(s) to whom it is addressed without written consent of this appraiser/consultant.
- 6. This report and the values expressed herein represent the opinion of the appraiser/consultant, and the appraiser/consultant's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
- 7. Sketches. Diagrams. Graphs. Photos. Etc., 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 appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
- 9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
- 10. No tree described in this report was climbed, unless otherwise stated. We cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. We cannot take responsibility for any root defects which could only have been discovered by such an inspection.

#### CONSULTING 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 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. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed.

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 all trees.







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