

Urban Forestry Services

BARTLETT CONSULTING

Divisions of The F.A. Bartlett Tree Expert Company

Title:	3003 77 th Ave Project – Mercer Park Project Arborist Addendum and ROW Tree Assessment Mercer Island, Washington
Prepared for:	Ryan Companies US Inc. Attn: Marc Gearhart 110 110 Ave NE Bellevue, Washington 98004
CC:	Kirsten Wild, Weinstein A+U
Prepared by:	Urban Forestry Services Bartlett Consulting Miles Becker, Consultant ISA Certified Arborist [®] #PN-7808A ISA Tree Risk Assessment Qualified
Date:	August 26, 2021
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Tree Assessment Site Plan Tree Assessment Matrix

Summary

Additional ROW trees assessed next to the site for the Mercer Park Project were found to be viable and received a low risk rating. Sixteen (16) Callery pear (Pyrus calleryana) trees along 77th Avenue SE are not expected to survive or be stable after the proposed site changes and they are recommended for removal and replacement. The retained trees will need protection measures during construction.

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Introduction

The commercial office building at 3003 77th Avenue SE near the corner of SE 32nd Street near downtown Mercer Island will be renovated in a project led by the Bellevue office of Ryan Companies. Trees on the property and in the adjacent right-of-way (ROW) potentially impacted by the project were initially described in a May 13, 2020 and July 24, 2020 arborist report from our office. The design was incomplete at that time and the arborist recommendations were to remove a small number of trees and retain the remainder. Specific tree recommendations were not included in that report because the site changes were not specific. The reports from 2020 were submitted to the city as part of the preapplication.

In August 2021, Kirsten Wild of Weinstein A+U, the project architects, contacted our office to request an assessment on additional trees. A comment from a review by the city arborist asked for trees in the ROW next to the project site to be assessed. The comment also asked the project arborist to comment on the anticipated impacts of a new sidewalk and utilities installation as close as 2 feet from the trunks of some of the ROW trees.

Ms. Wild provided updated site plans showing the location of trees, removed trees, and new site features. Most of the trees on the subject property next to ROW trees between the sidewalk and 77th Avenue SE will be removed. The planting area for the ROW trees will be a narrow 4-foot wide strip. Some utilities, such as electric, sewer, and storm drain may also be very close to the trees and within their critical zones.

I was on-site August 17, 2021 to inspect the ROW trees on 77th Avenue SE and SE 29th Street that are next to the project property. Each assessed tree was marked with a numbered aluminum tag that corresponds to the numbers in this Arborist Addendum and continues the number series of the trees assessed in the 2020 report. Detailed measurements and notes on each tree are in the attached Tree Assessment Matrix. Their location is shown on the Tree Assessment Site Plan with a base map from Weinstein A+U. The time frame for this assessment is 3 years from the date of the site visit.

Observations

I assessed 22 trees in the ROW on the north and east side of the subject property. The 17 trees along 77th Avenue NE are Callery pear (*Pyrus calleryana*) and the five trees along SE 29th Street are red maple (*Acer rubrum*). The red maple trees are the larger trees with a trunk diameter measured at 4.5 feet above grade (DBH) ranging from 7.5 to 17.1 inches. Several appear drought stressed and they are prematurely dropping leaves. The maple trees are in a narrow planting strip and the roots are up against the concrete sidewalk with upheaval and cracking in some places. They are all currently viable and failure of a large part of the tree or the entire tree is improbable.

The pear trees are younger with smaller DBH range from 4.9 to 9.3 inches. Tree #382 is the healthiest with a full crown and the most space to grow. The other trees are generally weaker with poor trunk taper and a tendency to slightly lean towards 77th Avenue SE with an asymmetrical crown in that direction. These trees are competing for light with trees on the subject property on the other side of the sidewalk. They are in small planting pits with metal grates around the trunk flares.

The red maple trees will eventually will need sidewalk replacement or repair. Low impact designs and materials will be needed to maximize the availability of soil abundance and minimize root loss. Given the current project design, disturbance for trees #361 through #365 is expected to be minimal and they can be retained.

A new sidewalk and possibly the installation of utilities approximately 2 feet west of the trunks of the pear trees is expected to result in significant root damage or loss. The root loss combined with an increase in wind exposure from the removal of adjacent trees on the subject property, their lean and poor taper, and already drought stressed condition will likely result in their immediate decline and an increased likelihood of failure onto 77th Avenue SE. The one exception is tree #382, which is further from the proposed sidewalk changes with more space for tree protection measures and it is a healthier tree with better structure.

Recommendations

Remove the Callery pear trees #366 through #381. The proposed site changes are expected to significantly affect their health and stability. They are low value trees and should be replaced with new trees that have greater potential to provide ecosystem services for the neighborhood.

Retain trees #361 through #365 and #382. Install tree protection fencing per the details on the landscape plans provided by the project landscape architect. At a minimum, the limits of disturbance should be the existing curb, sidewalk edge, or planting pit boundary.

Let me know if you have questions regarding this Addendum to the Arborist Report. I can be reached at 360-503-9654 or mbecker@bartlett.com.



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Tree Risk Assessment Level Descriptions

The tree risk assessment process is based on factors present at the time of assessment. Because trees are living, growing things that change in size and condition over time, the tree assessment process must also recognize and anticipate where and when future assessments should be performed. The Tree Risk Assessment Qualification (TRAQ) training and methodology, developed and administered by the International Society of Arboriculture is the best available methodology for tree risk assessment at this time. There are three levels of assessment that may be considered and employed according to the expectations of the owner or manager, conditions of the site and of the trees involved:

Level 1 Limited Visual Assessment: Includes a broad overview of an individual tree or group of trees near specified targets, conducted to identify obvious defects or other conditions of concern. A limited visual assessment typically focuses on identifying trees with imminent and/or probable likelihood of failure. Level 1 assessments do not always meet the criteria for a "risk assessment" if they do not include documented analysis and evaluation of individual trees. This level is typically used for large populations of trees as a means to quickly identify trees with imminent and/or probable likelihood of failure, at a specified schedule and/or immediately after storms.

Level 1 assessments may be done as walk-by, drive-by or aerial patrols as requested by the tree owner or manager. They may not provide enough information to develop risk mitigation recommendations. They can help identify specific areas and/or trees for further inspection at Level 2 or 3. Trees found to require a Level 2 Basic Assessment are assessed, mapped and documented at the higher level at this time. Trees determined to need a Level 3 Advanced Tree Assessment are documented and recommended for additional testing and analysis. The owner is notified with options discussed.

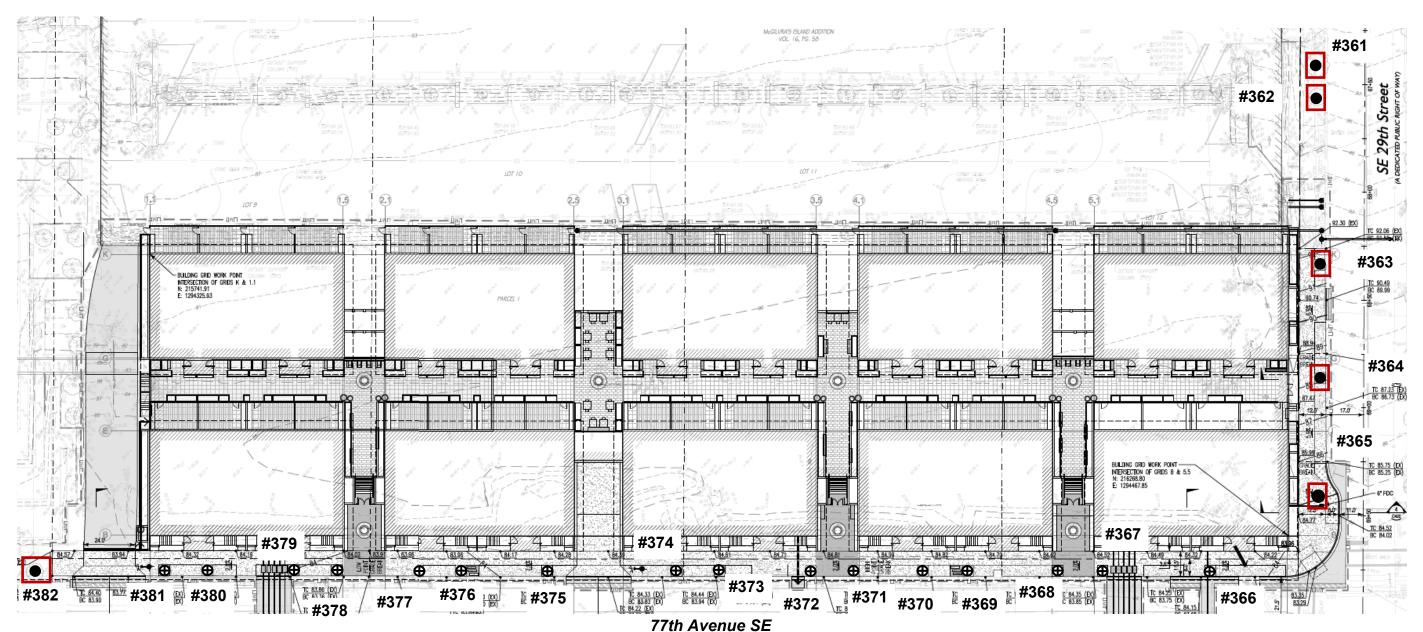
Level 2 Basic Assessment: This is a detailed visual inspection of a tree and its surrounding site, and a synthesis of the information collected. It requires that a tree risk assessor walk completely around the tree, looking at the site, buttress roots, trunk, and branches. This basic assessment may include the use of simple tools to gain additional information about the tree or defects. Our Level 2 Basic Assessment Trees are all typically tagged, mapped and information gathered and retained for each tree. Risk mitigation recommendations may be derived from this level of inspection. Defects found in a Level 2 Basic Tree Assessment may require a Level 3 assessment for further testing and analysis. The owner is notified with options discussed.

Level 3 Advanced Assessment: Advanced assessments are performed to provide more highly detailed information about specific tree components, defects, targets or site conditions. An advanced assessment is performed in conjunction with or after a Level 2 Basic Assessment if the assessor determines the need for (requires) additional information. This level is particularly useful where there are concerns about trees that may otherwise be of high value, or to obtain better information on how serious or extensive a particular defect is. The Level 3 Advanced Tree assessment may include but not be limited to a root crown inspection with air spade, Resistograph or Tomograph use to determine sound wood or an aerial crown inspection.

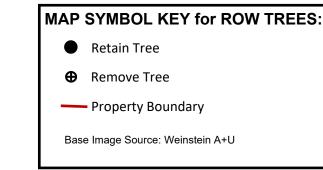
The preliminary Level 1 Limited Visual Assessment if requested would help determine where field assessments at Level 2 and Level 3 will be needed.

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Tree #	DBH (in)	<u>Species</u>	Tree #	DBH (in)	<u>Species</u>
361	16.1	Red maple	372	6.7	Callery pear var.
362	11.8	Red maple	373	9.9	Callery pear var.
363	8.5	Red maple	374	6.6	Callery pear var.
364	7.5	Red maple	375	6.8	Callery pear var.
365	17.1	Red maple	376	7.2	Callery pear var.
366	6.5	Callery pear var.	377	7.6	Callery pear var.
367	7.3	Callery pear var.	378	6.4	Callery pear var.
368	7	Callery pear var.	379	7.5	Callery pear var.
369	7.3	Callery pear var.	380	6.1	Callery pear var.
370	4.9	Callery pear var.	381	7.2	Callery pear var.
371	5.5	Callery pear var.	382	9.3	Callery pear var.





Tree Assessment Site Plan—ROW Trees

3003 77th Avenue SE, Mercer Island, WA

Park Project

Mercer I

© UFS| BC August, 2021 These documents have been prepared specifically for the above-named project. They are not suitable for use on other projects, or in other locations, and/ or without the approval and participation of the Bartlett Tree Expert Company.



UFS | BC NOT TO SCALE



Mercer Park Mercer Is.,

ASSESSOR: Miles Becker

ASSESSMENT DATE: 8/17/2021

TELEPHONE:

1 (360) 399-1377



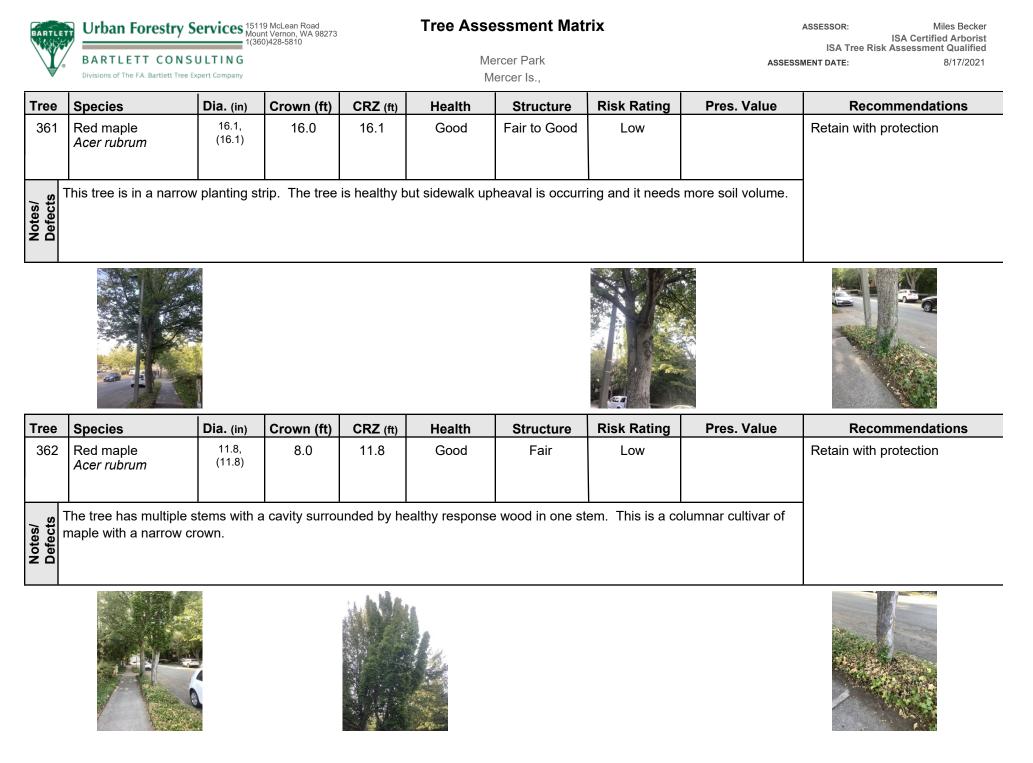
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BARTLE	Urban Forestry S	ervices 151 Mou 1(36	19 McLean Road int Vernon, WA 98273 50)428-5810		Tree Asse	essment Mat	rix		ASSESSOR: ISA Certified Arborist ISA Tree Risk Assessment Qualified
	BARTLETT CONS Divisions of The F.A. Bartlett Tree E					ercer Park ercer Is.,	ASSES	SMENT DATE: 8/17/2021	
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
363	Red maple <i>Acer rubrum</i>	8.5, (8.5)	10.0	8.5	Poor to Fair	Fair to Good	Low		Retain with protection
Notes/ Defects	Γhe tree is drought str	essed and	dropping leave	es prematu	rely for the sea	son. It can be c	corrected with rou	utine watering.	
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
364	Red maple Acer rubrum	7.5, (7.5)	12.0	7.5	Poor	Fair to Good	Low		Retain with protection
Notes/ Defects	Γhe tree is drought str	essed and	dropping leave	es prematu	rely for the sea	son. It can be c	corrected with rou	utine watering.	

BARTLE	Urban Forestry S	ervices 1511 Mou 1(36	19 McLean Road nt Vernon, WA 98273 0)428-5810		Tree Asse	essment Mat	rix		ASSESSOR: ISA Certified Arborist ISA Tree Risk Assessment Qualified
	BARTLETT CONS Divisions of The F.A. Bartlett Tree E					ercer Park ercer Is.,		ASSESS	MENT DATE: 8/17/2021
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
365	Red maple Acer rubrum	17.1, (17.1)	18.0	17.1	Fair	Fair to Good	Low		Retain
	The root crown of the t stressed and needs ro	-	-	p of the sid	ewalk and caus	sing significant ι	ipheaval. The tro	ee is drought	
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
366	Callery pear var. <i>Prunus calleryana</i> <i>var.</i>	6.5, (6.5)	7.5	6.5	Fair	Fair	Low		Remove
Notes/ Defects	The tree is drought stro	essed and r	needs routine	watering.			· · · · ·		

BARTLE	Urban Forestry S	ervices 1511 Moui 1(36	9 McLean Road nt Vernon, WA 98273 0)428-5810		Tree Asse	ssment Mat	rix		ASSESSOR: ISA Certified Arborist ISA Tree Risk Assessment Qualified
	Divisions of The F.A. Bartlett Tree Ex				Me Me	ASSES	SMENT DATE: 8/17/2021		
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
367	Callery pear var. Prunus calleryana var.	7.3, (7.3)	6.3	7.3	Fair	Fair	Low		Remove
Notes/ Defects	The tree is drought stre	essed and r	needs routine	watering.					
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
368	Callery pear var. <i>Prunus calleryana</i> <i>var.</i>	7, (7)	6.5	7.0	Poor to Fair	Fair	Low		Remove
Notes/ Defects	The tree is drought stre	essed and r	needs routine	watering.			·		

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¥.	BARTLETT CONS Divisions of The F.A. Bartlett Tree Ex					ercer Park ercer Is.,		ASSESS	MENT DATE: 8/17/2021	
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations	
369	Callery pear var. Prunus calleryana var.	7.3, (7.3)	8.0	7.3	Fair	Fair	Low		Remove	
Notes/ Defects	The tree is drought stre	essed and r	needs routine	watering.						
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations	
370	Callery pear var. Prunus calleryana var.	4.9, (4.9)	6.3	4.9	Fair to Good	Fair	Low		Remove	
Notes/ Defects	The tree is drought stre	essed and r	needs routine	watering.						

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Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
371	Callery pear var. Prunus calleryana var.	5.5, (5.5)	6.0	5.5	Poor to Fair	Fair	Low		Remove
Notes/ Defects	⁻he tree has poorly de	veloped tru	nk taper and	wound in th	ie trunk.				
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
372	Callery pear var. Prunus calleryana var.	6.7, (6.7)	7.3	6.7	Fair to Good	Fair	Low		Remove
Notes/ Defects	The tree has poorly de	veloped tru	nk taper.						

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	BARTLETT CONS					ercer Park		ASSES	SMENT DATE: 8/17/2021
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Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
373	Callery pear var. Prunus calleryana var.	9.9, (9.9)	10.0	9.9	Fair to Good	Fair to Good	Low		Remove
Notes/ Defects	The tree is drought stre	essed and r	need routine v	vatering.					
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
374	Callery pear var. Prunus calleryana var.	6.6, (6.6)	7.0	6.6	Fair	Fair	Low		Remove
Notes/ Defects	The tree has poor trun	k taper and	a slight lean	towards the	street.		· · · ·		

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¥.	BARTLETT CONS Divisions of The F.A. Bartlett Tree Ex					ercer Park ercer Is.,		ASSES	SMENT DATE: 8/17/2021
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
375	Callery pear var. Prunus calleryana var.	6.8, (6.8)	6.8	6.8	Poor to Fair	Poor to Fair	Low		Remove
Notes/ Defects	Γhe tree has poorly de	veloped tru	nk taper.						
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
376	Callery pear var. Prunus calleryana var.	7.2, (7.2)	5.3	7.2	Fair	Poor to Fair	Low		Remove
Notes/ Defects	Γhe tree has poor trun	k taper and	a slight lean	towards the	e street.		·		

BARTLET	/	1(36	19 McLean Road Int Vernon, WA 98273 50)428-5810			essment Mat		ASSESSOR: ISA Certified Arborist ISA Tree Risk Assessment Qualified	
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Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
377	Callery pear var. Prunus calleryana var.	7.6, (7.6)	6.0	7.6	Fair	Fair	Low		Remove
	The tree is drought stre competing with trees o			-	has poor tape	r and an asymn	netrical crown as	a result of	
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
378	Callery pear var. <i>Prunus calleryana</i> <i>var.</i>	6.4, (6.4)	5.3	6.4	Poor	Fair	Low		Remove
	The tree is drought stre competing with trees o				has poor tape	r and an asymn	netrical crown as	a result of	





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T		1	0	007		ercer Is.,	Diele Detinen	Dree Malue	Deserves adations
Tree 379	Species Callery pear var. Prunus calleryana var.	Dia. (in) 7.5, (7.5)	Crown (ft) 6.0	CRZ (ft) 7.5	Health Poor	Structure Fair	Risk Rating	Pres. Value	Recommendations Remove
	The tree is drought stre competing with trees o			-	t has poor tape	r and an asymm	netrical crown as	a result of	
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
380	Callery pear var. Prunus calleryana var.	6.1, (6.1)	5.3	6.1	Poor to Fair	Fair to Good	Low		Remove
	The tree is drought stre competing with trees o				t has poor tape	r and an asymm	netrical crown as	a result of	

BARTLE	/		19 McLean Road int Vernon, WA 98273 50)428-5810		Tree Asse	ASSESSOR: ISA Certified Arborist ISA Tree Risk Assessment Qualified			
	BARTLETT CONS Divisions of The F.A. Bartlett Tree E					rcer Park ercer Is.,		ASSES	SMENT DATE: 8/17/2021
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
381	Callery pear var. Prunus calleryana var.	7.2, (7.2)	9.0	7.2	Poor to Fair	Fair	Low		Remove
Notes/ Defects	The tree is drought stre	essed and ı	needs routine	watering.					
Tree	Species	Dia. (in)	Crown (ft)	CRZ (ft)	Health	Structure	Risk Rating	Pres. Value	Recommendations
382	Callery pear var. Prunus calleryana var.	9.3, (9.3)	10.0	9.3	Fair	Good	Low		Retain
	The trunk of the tree is palanced crown.	close to ou	utgrowing the	grate openi	ng at the trunk	flare. The tree	is in good condit	ion and it has a	