November 23, 2020 Pacifica City Council Meeting Agenda Item #10

Additional Meeting Materials Agenda Item # 10



November 23, 2020 City Council Meeting From: chris & angela gibbs
Sent: Friday, November 20, 2020 12:20 PM
To: Woodhouse, Kevin <woodhousek@ci.pacifica.ca.us>
Subject: Risk assessment revised

[CAUTION: External Email]

Kielty Arborist Services LLC

Certified Arborist WE#0476A P.O. Box 6187 San Mateo, CA 94403 650-515-9783

November 20, 2020

Christopher Gibbs

Pacifica CA 94044

Site: 24 - 30 Salada Avenue, Pacifica CA

Dear Mr. Gibbs,

On Thursday, November 19, 2020, I visited the above site as requested, to inspect and analyze the five (5) trees located along the easterly side of your property at 24 - 30 Salada Avenue, Pacifica, CA. The purpose for this visit was to do a risk assessment of the trees. Your concern as to the future health and safety of the trees, has prompted this visit.

Method: <image003.jpg> All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on a plot provided. The trees were then measured for diameter at 24 inches above ground level (DBH or diameter at breast height). A condition rating (CON) is provided using 50 percent vitality and 50 percent form, using the following scale:

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

The height of the trees was measured using a Nikon Forestry 550 Hypsometer. The spread was paced off (HT/SP). Comments and recommendations for future maintenance are provided. The Matheny and Clark 12 - Point Hazard Assessment was used to rate the trees for possible risk. The trees were rated in their current condition and if a new home was to be built on the vacant lot. **Five cypress trees at 24-30 Salada Ave. The trees have PGE electric power lines wired throughout and beneath.**

Salada 11/22/19 (2)

Survey:	
bui vey.	

<u>Tree#</u>	Species	<u>DBH</u>	<u>CON</u>	HT/SP	Comments
1H	Monterey cypress	28	50	35/40	Poor-fair vigor,
poor form,	(Cupressu	s macroc	arpa)		-
leans e	asterly by 15 feet.				
2H	Monterey cypress	22	45	35/40	Fair vigor, poor
form, leans norther	(Cupre rly by 25 feet.	ssus maci	rocarpa)	
3Н	Monterey cypress	28	50	40/35	Fair vigor, fair
form, co-	(Cupr	essus ma	crocarpo	a)	-
	dominant at 1	5 feet, lea	ins		
				easte	erly by 18 feet.
4H	Monterey cypress	24	45	35/40	Fair vigor, poor
form, large	(Cupre	essus mac	rocarpa)	
northe	rn leader removed.				
				Lear	ns easterly by 25 feet.
5H	Monterey cypress	40	45	40/35	Fair-good vigor,
poor form,	(Cupre	ssus mac	rocarpa)	
history	of limb failure. Lean	S	_		
	easterl	y and sou	therly b	y 25	
			-		feet.
H indicates h	<u>eritage tree</u>				

Matheny and Clark 12 - Point Decay Assessment Method:

The Matheny and Clark International Society of Arboriculture Approved -12 Point Hazard Assessment Method was used to help to determine the degree of risk. The hazard rating system rates each tree with a possible four (4) points in three (3) categories. The three (3) categories

represent <u>the Part</u> of the section of tree causing the possible hazard that may fail, <u>the Chance</u> of failure, and <u>the Target</u> that will be damaged if <u>the Part</u> fails. An explanation of the ratings is as follows.

<u>Part</u>	<u>Chance</u>	<u>Target</u>
1 = Small limbs or branches	1 = Not likely	1 = Open
space or other trees		
2 = Larger lateral limbs	2 = Slight chance	2 = Road or
fencing		
3 = Trunks or leaders	3 = Failure likely	3 = Patios or
carports		
4 = Entire tree or large trunks	4 = Failure eminent	4 = Residences

The higher the hazard rating, the higher the risk of tree failure. A rating of "12" would be considered a high probability for damage and/or injury. A rating of "3" would be considered a very low chance of failure and/or injury. This hazard rating method will help you prioritize the recommended tree work.

Salada 11/22/19

(3)

Existing conditions:

Tree #	<u>Part</u>	Likelihood	<u>Target</u>	<u>Total</u>
1	2	3	2	7
2	2	3	2	7
3	3	3	3	9
4	2	3	2	7
5	3	3	4	10

When lot is developed:								
Tree#	- <u>Part</u>	Likelihood	<u>Target</u>	<u>Total</u>				
1	4	3	4	11				
2	4	3	4	11				
3	4	4	4	12				
4	4	4	4	11				
5	4	4	4	12				

Summary:

The current conditions have most of the foliage and leaning trunks over the vacant lot with some overhanging limbs on the developed property side. Cypress #5 has heavy lateral limbs over the rear residence. <u>The rear residence would be a high value target of 4.</u> Limb failure is the most likely chance of failure.

If the lot to the northwest of the property is developed the risk increases

<u>dramatically.</u> The narrow lot does not allow for a house to be moved further from the cypress trees. Root loss if the home was to be built near the setback would be major. Root loss would result in tree failure being the most likely chance of failure. If the trees were to fail the home on the vacant lot would be the high value target.

If one or more tree were to be removed, the chances of limb or entire tree failure would increase for the remaining trees. Cypress trees rely on each other to help block the coastal winds. This is a common result in forest situations (grove or forest dynamics). Further trimming of the trees for safety reasons and/or to correct their poor form, lack of balance, etc., would also increase the chances of limb or entire tree failure.

Removal of all five (5) cypress tree is the only method that eliminates all hazards and liabilities associated with the trees.

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

Sincerely,

Kevin R. Kielty Certified Arborist WE#0476A

 From:
 Woodhouse, Kevin

 To:
 Coffey, Sarah; Petersen, Lisa; Bautista, Sam

 Subject:
 FW: Salada 11 20 20 rivised FINAL.pdf

 Date:
 Friday, November 20, 2020 2:14:02 PM

 Attachments:
 Salada 11 20 20 rivised FINAL.pdf

FYI.

-----Original Message-----From: chris & angela gibbs < Sent: Friday, November 20, 2020 1:10 PM To: Woodhouse, Kevin <woodhousek@ci.pacifica.ca.us> Subject: Salada 11 20 20 rivised FINAL.pdf

[CAUTION: External Email]

Sorry this is the signed amended copy

Kielty Arborist Services LLC Certified Arborist WE#0476A P.O. Box 6187 San Mateo, CA 94403 650-515-9783

November 20, 2020

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Pacifica CA 94044

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Five cypress trees at 24-30 Salada Ave. The trees have PGE electric power lines wired throughout and beneath.

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Survey	•				
<u>Tree#</u> 1H	<u>Species</u> Monterey cypress (Cupressus macrocarpa)	<u>DBH</u> 28	<u>CON</u> 50	HT/SP 35/40	<u>Comments</u> Poor-fair vigor, poor form, leans easterly by 15 feet.
2Н	Monterey cypress (Cupressus macrocarpa)	22	45	35/40	Fair vigor, poor form, leans northerly by 25 feet.
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Existing conditions:

Tree #	<u>Part</u>	Chance	Target	<u>Total</u>
1	2	3	3	8
2	2	3	3	8
3	3	3	3	9
4	2	3	4	9
5	3	4	4	11

When lot is developed:

Tree#	Part Part	Likelihood	Target	<u>Total</u>
1	4	4	4	12
2	4	4	4	12
3	4	4	4	12
4	4	4	4	12
5	4	4	4	12

Summary:

The current conditions have most of the foliage and leaning trunks over the vacant lot with some overhanging limbs on the developed property side. High voltage utility lines and other electrical lines are within the tree canopies. Many of the limbs are heavy lateral limbs and are subjected to failure. Utility interruption and potential fire danger is at high risk as even a small limb failure can interrupt the utility service. Pruning the cypress trees for line clearance will remove a large portion of the canopies and would likely be beyond the tolerance of the trees. Pruning the cypress trees and their canopies for balance would be extremely difficult and maybe not possible as a large portion of the canopies should be removed which would likely be beyond the tolerance of the trees. Tree decline would be expected if more than 25% of the canopies were to be removed.

Pruning cypress trees #5 for line clearance would leave heavy lateral limbs over the rear residence. This would create an off-balanced canopy with the remaining canopy heavy over the residence. The rear residence would be a high value target of trees #4 and #5. Limb failure is the most likely part of the trees to fail as a history of limb loss in the canopies was observed.

If the lot to the northwest of the property is developed, the risk increases dramatically. The narrow lot does not allow for a house to be moved further from the cypress trees. Root loss if the home were to be built near the setback would be major. The root loss would likely result in tree failure. If the trees were to fail, the home on the vacant lot and people living in the home would be the high value target.

If one or more tree were to be removed, the chances of limb or entire tree failure would increase for the remaining trees. Cypress trees rely on each other to help block the coastal winds. This is a common result of failure in forest situations (grove or forest dynamics) where trees are removed.

Salada 11/20/20

The tree pruning needed for line clearance and to reduce risk of limb failure likely exceeds ANSI Standards. Pruning more than 25% of the tree canopies would weaken the trees and roots. Tree decline would be imminent.

Replacement of all five (5) cypress tree is the only method that eliminates all hazards and liabilities associated with the trees.

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

Sincerely,

Kevin R. Kielty

Certified Arborist WE#0476A Kevin Kielty

From: Sent: To: Subject: Attachments: chris & angela gibbs < Sunday, November 22, 2020 3:01 PM Coffey, Sarah; Woodhouse, Kevin 30 salada risk assessment form tree risk assessment.html

[CAUTION: External Email]

Here is the risk assessment form to be attached to our file

Also Sarah can we include kevin Kielty as our expert and the adjacent property owner Walt Mcdonald to the zoom meeting just like the last one ? if you need more info from them please let me know

Thank you

Sincerely, Chris Gibbs



The information contained in this email message and any attachments is privileged and confidential information, and is protected under the privacy act of 1974 and the Gramm Leach Bliley Act of 2000, and is intended only for the use of the individual or entity named above. If the reader of this email message is not the indended recipient, you are hereby on notice that you are in possision of confidential and privileged information. Please notify the sender immediately by return email or the phone number listed above, delete this email along with any attachments and destroy any copies. Any dissemination, distribution, copying or use of this information by a person other than the inteded recipient is unauthorized, strictly prohibited and may be illegal.

From: Sent: To: Subject: Attachments: chris & angela gibbs Sunday, November 22, 2020 4:20 PM Woodhouse, Kevin; Coffey, Sarah tree risk assesment salada db 11 20 20.pdf tree risk assesment salada db 11 20 20.pdf; ATT00001.txt

[CAUTION: External Email]

Sorry try this , let me know if it works

Thanks

	ISA Basic Tree	Risk /	Assessmer	nt Fo	orr	n			
Client	Christopher Gibbs	[Date_11/18/20	Ti	me_n	oon		_	
Addres	ss/Tree location _24-30 Salada Ave Pacifica CA	Т	ree no#1-5	Shee	t_1_	_ of 2	<u></u>	-	
Tree s	species _Monterey Cypress db	h_22-28"	Height _35-40'_	Cro	own s	sprea	d dia35	5-40'	
Assess	or(s)Kevin Kielty and David Beckham	Time frame	e Tools	used					
	Ta	rget Assessi	nent						
				Та	rget zoi	ne			1
Target number	Target description			Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.	Occupancy rate 1-rare 2 - occasional 3 - frequent 4 - constant	Practical to move target?	Restriction practical?
1	Home			х			4	no	no
2	overhead utilities			x			4	no	no
3	vacant parcel			x			4	no	no
4	People on walkway to home			x			3	no	no
		Site Factors	3				•		
History	of failures No whole tree failures, past limb failures obse	rved	Topograp	hy Flat₫	Slope	e□	%	Aspect	t
Site cha	anges None Grade change Site clearing Changed soi	I hydrology C] Root cuts □ Describe	-				-	
Soil co	nditions Limited volume Saturated Shallow Compac	ted 🗆 Paven	nent over roots 🛛 _ 20%	≦% Des	cribe	Walk	way and hor	ne	
Prevail	ing wind direction <u>NW</u> Common weather Strong winds	s 🖾 ce 🗆 🛛 Si	now 🛛 Heavy rain 🖾 🛙	escribe	Win	dan	d rains no	rmal	
	Tree Hea	Ith and Spe	cies Profile						
Vigor Pests_	Low Normal High Foliage None (seasonal)	None (dead) 🗆 Normal	_% (Chlorot	tic	% Neo	crotic _	
Species	s failure profile Branches 🖾 Trunk 🗆 Roots 🗆 Describe	Limb failure	es common for species						
		Load Facto	rs						
Wind e Crown Recent	exposure Protected □ Partial □ Full ☑ Wind funneling □_ density Sparse □ Normal ☑ Dense □ Interior branches or planned change in load factors	Few 🛛 Norr	Relat nal Dense Vines/	ive crov Mistlet	vn size oe/Mc	sma ss □	III□ Mediu	m 🗆 L	_arge Ľ
	Tree Defects and Condition	ions Affectir	ng the Likelihood of Fa	ilure					
	— Crow	n and Bra	inches —						
(i	Jnbalanced crown 🛛 LCR %	Cracks 🛛					Lightning da	mage [
[Dead twigs/branches 🛛 🛛% overall Max. dia	- Codominar	nt 🗆				Included	d bark [
E	Broken/Hangers Number <u>4</u> Max. dia. <u>10"</u>	Weak attac	hments 🖾		(Cavity/	— 'Nest hole	% cir	rc.
0	Over-extended branches 🛛	Previous br	anch failures 🛛			Simila	r branches pr	esent l	X
F	Pruning history Crown cleaned 邱 Thinned 口 Raised 匝	Dead/Missi	ng bark 🛛 Cankers/Ga	lls/Burls		Sapwo	ood damage/	decay I	
F	Reduced 🗆 Topped 🛛 Lion-tailed 🖬 Flush cuts 🗆 Other	Conks 🛛 Response g	Heartwoo rowth	d decay					_
r	Main concern(s) <u>Poorly attached limbs due to past topping o</u>	cuts							_
	Load on defect N/A Minor Moderate	e 🛛 Signific	cant 🗆						_ _ ,
\geq									\leq
(— Trunk —	$ \sim$	— Roo	ts and	Roo	t Co	ollar —		_ `
	Dead/Missing bark Abnormal bark texture/color		Collar buried/Not visible	e□ De	epth		Stem gi	rdling L	
	Codominant stems Lincluded bark Li Cracks L		Dead Decay	/ 🗆	C	Conks/	'Mushrooms		
	apwood damage/decay LL Cankers/Galls/Burls LL Sap ooze L		Ooze Cavity	/□	_% cir	с.			
	Ightning damage山 Heartwood decay山 Conks/Mushrooms L		Cracks Cut/Damag	ed roots	Dis Dis	stance	from trunk		
	Lavity/Nest hole% circ. Depth Poor taper L	-	Root plate lifting 🗖	So	il weak	kness l			
'		-							
F	Response growth	-	Response growth						_
	viain concern(s)ee iedii	-	Main concern(s)						
	oad on defect N/A I Minor I Moderate I Significant ikelihood of failure marchable Ressible A Brobable I Imminant I		Load on defect N/A Likelihood of failure			Mode	rate 🗆 Sign	ificant	_ 1 /
		· \			PLOR	Japie			/

Risk Categorization Likelihood **Condition number** Consequences Target number Failure & Impact Failure Impact Fall distance (from Matrix 1) Risk Improbable Very likely rating Part size Somewhat Significant Negligible Probable Imminent Very low Possible Medium Unlikely of part Severe Minor Conditions Likely Target High Low (from of concern protection **Tree part** Matrix 2) 12-20' 35-40 1 Х Crown х х High х poorly attached no and 1 heavy limbs 2 х High х х х branches no Low 3 no х х х > 4 High х х no х х 2 3 4 Matrix I. Likelihood matrix. Likelihood of Impacting Target Likelihood of Failure Medium Very low Low High Imminent Unlikely Somewhat likely Likely Very likely Probable Unlikely Unlikely Somewhat likely Likely Possible Unlikely Unlikely Unlikely Somewhat likely Unlikely Improbable Unlikely Unlikely Unlikely Matrix 2. Risk rating matrix. **Consequences of Failure** Likelihood of Failure & Impact Negligible Minor Significant Severe Very likely Low Moderate High Extreme

Mitigation options	Prune	e trees using appr	oved crowr	reduction pruning m	ethods at 25% maximum c	f canopy	Residual risk	Moderate to
							_ Residual risk	high
							_ Residual risk	
							_ Residual risk	
Overall tree risk rating	Low 🛛	Moderate 🗖	High 🛛	Extreme 🗖	Work priority	1 🗆 2 🗆 3 🗆	4 🗆	
Overall residual risk	Low 🛛	Moderate 🗵	High 🛛	Extreme 🗖	Recommended	inspection interv	/al	
Data D Final D Prelimina	ry Advar	iced assessme	nt needeo	I □No □Yes-Type,	/Reason			

High

Moderate

Low

Inspection limitations INone Visibility Access Vines Root collar buried Describe

Moderate

Low

Low

High

Moderate

Low

Low

Low

Low

Notes, explanations, descriptions _

Likely

Somewhat likely

Unlikely

North

From: Sent:	Woodhouse, Kevin Sunday, November 22, 2020 4:59 PM
To:	_City Council Group
Cc:	Coffey, Sarah; Petersen, Lisa; Bautista, Sam
Subject:	Additional Salada Tree Submittals from Applicant
Attachments:	Salada 11 20 20 rivised FINAL.pdf; tree risk assesment salada db 11 20 20.pdf

Councilmembers,

Applicant Chris Gibbs submitted the enclosed additional arborist report Friday afternoon, and Tree Risk Assessment form Sunday afternoon. This information will also be provided to the appellant.

Kevin Woodhouse City Manager City of Pacifica <u>www.cityofpacifica.org</u> 650.738.7409



From: Sent:	Woodhouse, Kevin Sunday, November 22, 2020 5:06 PM
To:	Cindy Abbott;
Cc:	Petersen, Lisa; Bautista, Sam; Michelle Kenyon [BWS Law]; Coffey, Sarah
Subject:	Additional Salada Tree Submittals from Applicant
Attachments:	Salada 11 20 20 rivised FINAL.pdf; tree risk assesment salada db 11 20 20.pdf

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Kevin Woodhouse City Manager City of Pacifica <u>www.cityofpacifica.org</u> 650.738.7409



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4	2	3	4	9
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When lot is developed:

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Summary:

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Pruning cypress trees #5 for line clearance would leave heavy lateral limbs over the rear residence. This would create an off-balanced canopy with the remaining canopy heavy over the residence. The rear residence would be a high value target of trees #4 and #5. Limb failure is the most likely part of the trees to fail as a history of limb loss in the canopies was observed.

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Salada 11/20/20

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

Sincerely,

Kevin R. Kielty

Certified Arborist WE#0476A Kevin Kielty

	ISA Basic Tree	Risk /	Assessme	nt F	orr	n			
Client	Christopher Gibbs	[Date_11/18/20	Tii	me_no	oon		_	
Addres	ss/Tree location _24-30 Salada Ave Pacifica CA	Т	ree no#1-5	Shee	t_1_	_ of 2	<u></u>	-	
Tree	species _Monterey Cypress db	h_22-28"	Height _35-40'	Cro	own s	sprea	d dia35	5-40'	
Assess	or(s) Kevin Kielty and David Beckham	Time frame	e Tool	s used					
	Ta	rget Assessr	nent						
				Та	rget zor	ne			1
Target number	Target description			Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.	Occupancy rate 1-rare 2 - occasional 3 - frequent 4 - constant	Practical to move target?	Restriction practical?
1	Home			x			4	no	no
2	overhead utilities			x			4	no	no
3	vacant parcel			x			4	no	no
4	People on walkway to home			x			3	no	no
	•	Site Factors	6		<u>. </u>		•		
History	of failures No whole tree failures, past limb failures obse	rved	Topogra	ohy Flat⊉	Slope	еП	%	Aspect	t
Site ch	anges None Grade change Site clearing Changed soi	I hydrology C] Root cuts □ Describe	e	-			-	
Soil co	nditions Limited volume Saturated Shallow Compac	ted 🛛 Paven	nent over roots 🛛20	% Des	cribe _	Walk	way and hor	ne	
Prevail	ing wind direction <u>NW</u> Common weather Strong winds	s 🖾 ce 🗆 🛛 Si	now 🛛 Heavy rain 🖾	Describe	Win	dan	d rains no	rmal	
	Tree Hea	lth and Spe	cies Profile						
Vigor Pests_	Low 🗆 Normal 🛛 High 🗆 🛛 Foliage None (seasonal) 🗆	None (dead) 🗆 Normal	_% (Chlorot	tic	% Neo	crotic _	
Specie	s failure profile Branches 🖾 Trunk 🗆 Roots 🗆 Describe	Limb failure	es common for species						
		Load Facto	rs						,
Wind e Crown Recent	exposure Protected □ Partial □ Full □ Wind funneling □_ density Sparse □ Normal □ Dense □ Interior branches or planned change in load factors	Few 🛛 Norr	Rela nal Dense Vines	tive crov /Mistlet	vn size oe/Mo	sma Sma SSS□	III□ Mediu 	m 🗆 L	_arge Ľ
	Tree Defects and Condition	ions Affectir	ng the Likelihood of F	ailure					
	— Crow	n and Bra	inches —						
(1	Jnbalanced crown 🛛 LCR %	Cracks 🛛					Lightning da	mage [
	Dead twigs/branches 🛛 🛛% overall Max. dia	Codominar	nt 🗆				Included	d bark [
1	Broken/Hangers Number <u>4</u> Max. dia. <u>10"</u>	Weak attac	hments 🖾		0	Cavity/	— 'Nest hole	% cir	rc.
	Over-extended branches 🛛	Previous br	anch failures 🕅			Simila	r branches pr	esent l	X
	Pruning history Crown cleaned 🖾 Thinned 🗆 Raised 🖾 Reduced 🔲 Tonned 🕅 Lion-tailed 🕅	Dead/Missi	ng bark Cankers/G	alls/Burls		Sapwo	ood damage/	decay I	
i	Flush cuts D Other	Response g	rowth	,					_
	Main concern(s) <u>Poorly attached limbs due to past topping o</u>	cuts							_
	Load on defect N/A I Minor I Moderate Likelihood of failure Improbable Possible Probable	e 🛛 Signific	cant 🗆						
\geq	— Trunk —	$\overline{}$	- Roc	ots and	Roo	t Co	llar —		
/ r	Dead/Missing bark Abnormal bark texture/color	чΥ	Collar buried/Not visibl		nth nth		Stem gi	rdling [ר '
	$\Gamma_{\rm rest}$	-			ر	`onks/	 Mushrooms		_
	Sanwood damage/decay 🗌 Cankers/Galls/Burls 🗌 San ooze [-			0∕ cir		IVIUSITIOOTTIS		
	ightning damage 🗆 Heartwood decay 🗆 Conks/Mushrooms 🗆			.y 🖵		t.	fuene trunk		
	Cavity/Nest hole % circ. Depth Poor taper [ged roots		stance			_
	ean 75 ° Corrected? No	-	Root plate lifting 🗳	So	il weak	kness I			
	Personance growth Yes	-	Response growth						
	Main concern(s) Tree lean	-	Main concern(c)						
		-							
	oad on defect N/A I Minor I Moderate I Significant ikelihood of failure		Load on defect N/A Likelihood of failure	Mino	or 🗆 I	Mode	rate 🗆 Sign	ificant	
\sim	mprobable 니 Possible 凶 Probable 니 Imminent 🗆	\checkmark	Improbable L Possil	ріе 🛛	Prob	bable l	L Immii	nent 🗆	$\mathbf{\nabla}$

Risk Categorization Likelihood **Condition number** Consequences Target number Failure & Impact Failure Impact Fall distance (from Matrix 1) Risk Improbable Very likely rating Part size Somewhat Significant Negligible Probable Imminent Very low Possible Medium Unlikely of part Severe Minor Conditions Likely Target High Low (from of concern protection **Tree part** Matrix 2) 12-20' 35-40 1 Х Crown х х High х poorly attached no and 1 heavy limbs 2 х High х х х branches no Low 3 no х х х > 4 High х х no х х 2 3 4 Matrix I. Likelihood matrix. Likelihood of Impacting Target Likelihood of Failure Medium Very low Low High Imminent Unlikely Somewhat likely Likely Very likely Probable Unlikely Unlikely Somewhat likely Likely Possible Unlikely Unlikely Unlikely Somewhat likely Unlikely Improbable Unlikely Unlikely Unlikely Matrix 2. Risk rating matrix. **Consequences of Failure** Likelihood of Failure & Impact Negligible Minor Significant Severe Very likely Low Moderate High Extreme

Mitigation options	Prune	e trees using appr	oved crowr	n reduction pruning m	nethods at 25% maximum c	of canopy	Residual risk	Moderate to
							_ _ Residual risk	high
							_ Residual risk	
							_ Residual risk	
Overall tree risk rating	Low 🛛	Moderate 🗖	High 🛛	Extreme 🗖	Work priority	1 🗆 2 🗆 3 🗆	4 🗆	
Overall residual risk	Low 🛛	Moderate 🗵	High 🛛	Extreme 🗖	Recommended	l inspection interv	/al	
Data D Final D Prelimina	ry Advar	nced assessme	nt needeo	d □No □Yes-Type,	/Reason			

High

Moderate

Low

Inspection limitations INone Visibility Access Vines Root collar buried Describe

Moderate

Low

Low

High

Moderate

Low

Low

Low

Low

Notes, explanations, descriptions _

Likely

Somewhat likely

Unlikely

North