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May 23rd, 2023

Ms. Brianne Harkousha
Senior Planner
City of Pacifica
540 Crespi Dr.
Pacifica, CA 94044

RE: 1164 Rosita Road Tree Removal Application

Brianne

NCE has reviewed the Arborist Report and Tree Risk Assessment form prepared by Kevin Pineda, ISA Certified Arborist and found the Report and Tree Risk Assessment in compliance with the City of Pacifica's Chapter 12-Tree Preservation Ordinance of the City of Pacifica's Municipal Code.

Please contact me if you have any questions.

Sincerely,

NCE

A handwritten signature in blue ink, appearing to read "Matthew S. Gaber".

Matthew Gaber RLA
Principal Landscape Architect

cc: Lisa Peterson

Christian Murdoch

Bob Palacio

Oakland, CA
5253 College Ave, Suite B
Oakland, CA 94618
(510) 250-9189

Arborist Report

Tree Risk Assessment

1164 Rosita Road Pacifica, CA 94044

March 20, 2023



Prepared for the homeowner:

JanNice P Hanlon

1164 Rosita Rd.

Pacifica, CA 94044

Prepared by:

Kevin Pineda

ISA Certified Arborist

pinedakevin1990@gmail.com

with

Donald Cox, advisor

ISA Certified Arborist

drtreelove@gmail.com

Arborist Assignment

Kevin Pineda and Don Cox, independent certified-arborist associates, have been contracted by the owner of the property at 1164 Rosita Road in Pacifica, CA, to assess a tree on the residential property in relation to a concern of the property owner as well as from a next-door neighbor about potential risk of tree structural failure and property damage.

The arborist site visit by Kevin Pineda took place March 4.

Plans, laws, and standards used for site and tree assessment:

City of Pacifica Municipal Code Chapter 12. – Tree Preservation

Best Management Practices: Tree Risk Assessment (2nd Edition 2017)

(A publication of the International Society of Arboriculture)

Best Management Practices: Managing Trees During Construction (2nd Edition 2016)

(A publication of the International Society of Arboriculture)

Summary Of Tree Assessment

One large Monterey cypress tree (*Hesperocyparis macrocarpa*) is located in the rear yard and adjacent to a new retaining wall and a fence, which borders a neighboring property to the rear.

The subject tree is only **half a tree**, due to structural deformity and canopy growth restrictions which resulted from crowding with a previously adjacent tree and topping. It is over-mature and over-grown for the small site.

With the one-sided canopy and scaffold branch structure, the tree is overweighted and leaning toward the neighbor's property to the rear. The one-sided over-weighting presents a risk of structural failure and wind-throw tree toppling. There is no possibility of re-establishing canopy growth and balance in weight distribution within a reasonable amount of time for preventive management.

History of the new retaining wall construction and tree root damage impacts are unknown and are a large concern for tree structural integrity. It is obvious that the recommended tree protection zone has been violated and therefore compromised the structural root plate and anchoring capacity.

Entire tree removal is required to abate risk and replant with a more suitable species for the site.

Regulated Trees In The City Of Pacifica

Sec. 4-12.02. - Definitions.

"Protected tree" shall mean and include:

All trees on public and private property within the City of Pacifica, which have a trunk with a diameter of twelve (12") inches or greater at DBH.

Any heritage tree designated by the Director.

Any grove of trees.

Eucalyptus and any species determined invasive by the California Invasive Plants Council are not protected by this chapter, except groves of trees and as the director may deem otherwise.

Sec. 4-12-08. - Designation of heritage trees.

Ord. No. 88-C.S., § 2, effective October 12, 2022, repealed ch. 12, §§ 4-12.1—4-12.11 and enacted a new ch. 12 as set out herein.

All trees currently known to meet the following criteria within the City of Pacifica are hereby designated as heritage trees:

- Any trees that are of the species *Quercus agrifolia* (coast live oak), *Quercus lobata* (valley oak), *Aesculus californica* (California buckeye), *Pinus radiata* (Monterey pine), or *Sequoia sempervirens* (redwood), which have a trunk diameter of twelve (12") inches or more; or
- Any trees that are of the species *Heteromeles arbutifolia* (toyon) which have a trunk diameter of four (4") inches DBH or more.
- The Director may also designate heritage trees that meet any of the following criteria:
- Tree(s) of historic value; Specimen tree(s) of any species; Any tree of substantial size of its species; is one of the largest and oldest trees in Pacifica; or Significant habitat value.

Subject Tree Description

Monterey cypress (*Hesperocyparis macrocarpa*)

Size: 60-inches in trunk diameter at breast height. 60-feet in height'

Age and Condition: Over-mature, estimate 70 years old. Fair physiological health, poor structural condition. **There is existing moderate risk of structural failure**, due to size and entirely imbalanced canopy, structural defects, with exposure to high-wind storm events off the nearby Pacific Ocean.

City Code Protection Status: A “Protected tree” by City Ordinance Definition (... a trunk with a diameter of twelve (12") inches or greater at DBH.)

Not classified as a ‘heritage tree’ according to current ordinance definition.

Potential construction impacts: Significant damage to the tree would be inevitable with any root cutting, grading and paving or other construction within the recommended TPZ . This can result in severe negative physiological impact and possible destabilization contributing to structural failure. (This has already occurred.)

Risk and potential targets:

Tree parts most likely to fail: One or more entire vertical stems with foliar crown, or entire tree.
Targets for falling tree parts: Property of neighbor to the rear.

TPZ: A Tree Protection Zone recommendation is **25-feet** distance from the tree trunk in all directions as a non-intrusion, no root cutting zone for tree preservation.



One-sided large cypress with heavy lean and structural defects.



Compromised root plate. Root cutting at less than eight feet from the tree trunk.



***Leaning one-sided tree with multiple co-dominant stems – prone to failure
Compromised structural root zone***

ARBORIST RECOMMENDATIONS

Considering the compromised structural condition of the subject tree (structural defects and root-zone excavation), there is risk of structural failure and impact on high-value potential targets for a falling tree or tree parts. Tree removal and replacement with a suitable species should be considered.

The recommendation is for pre-emptive hazard abatement, to eliminate the risk of catastrophic property damage and personal injury. Remove and replace with one or two medium-size evergreen trees that are more in scale with the residential site, and will be much safer over the next 20 years or more.

Suggestions for replacement trees:

Red flowering gum *Corymbia ficifolia*
(Preferred - red flower variety is spectacular)

Eucalyptus “willow-leaf peppermint” *Eucalyptus nicholii*
(second preference – beautiful tree but not known for flowering)

Other possibilities:

New Zealand Christmas tree *Metrosideros excelsa*

Southern magnolia *Magnolia grandiflora* ‘Majestic Beauty’ or ‘Little Gem’

Brisbane box *Lophostemon confertus*

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 the 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 lead to the structural failure of a tree. Trees are living organisms that fail in ways that we sometimes 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 cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist.

Trees can be managed, but all factors cannot be controlled. To live near trees is to accept some degree of risk.

Information contained in this report covers only those items that were examined and reflects the conditions of those items at the time of inspection.

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

Certification:

We hereby certify that all the statements of fact in this report are true, complete, and correct to the best of our knowledge and belief, and are made in good faith, in the best interests of the trees, the property owners and the community.



Kevin Pineda
ISA Certified Arborist WE-12118A
Tree Risk Assessment Qualification



Donald W. Cox,
ISA Board Certified Master Arborist WE-3023BUM



Basic Tree Risk Assessment Form

Client _____ Date _____ Time _____
 Address/Tree location _____ Tree no. _____ Sheet _____ of _____
 Tree species _____ dbh _____ Height _____ Crown spread dia. _____
 Assessor(s) _____ Time frame _____ Tools used _____

Target Assessment

Target number	Target description	Target zone			Occupancy rate 1 – rare 2 – occasional 3 – frequent 4 – constant	Practical to move target?	Restriction practical?
		Target within drip line	Target within 1 x Ht.	Target within 1.5 x Ht.			
1							
2							
3							
4							

Site Factors

History of failures _____ **Topography** Flat Slope _____ % **Aspect** _____
Site changes None Grade change Site clearing Changed soil hydrology Root cuts Describe _____
Soil conditions Limited volume Saturated Shallow Compacted Pavement over roots _____ % Describe _____
Prevailing wind direction _____ **Common weather** Strong winds Ice Snow Heavy rain Describe _____

Tree Health and Species Profile

Vigor Low Normal High **Foliage** None (seasonal) None (dead) Normal _____ % Chlorotic _____ % Necrotic _____ %
Pests _____ **Abiotic** _____
Species failure profile Branches Trunk Roots Describe _____

Load Factors

Wind exposure Protected Partial Full Wind funneling _____ **Relative crown size** Small Medium Large
Crown density Sparse Normal Dense **Interior branches** Few Normal Dense **Vines/Mistletoe/Moss** _____
Recent or planned change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown LCR _____ % Cracks _____ Lightning damage
 Dead twigs/branches _____ % overall Max. dia. _____ Codominant _____ Included bark
 Broken/Hangers Number _____ Max. dia. _____ Weak attachments _____ Cavity/Nest hole _____ % circ.
 Over-extended branches Previous branch failures _____ Similar branches present
Pruning history
 Crown cleaned Thinned Raised Dead/Missing bark Cankers/Galls/Burls Sapwood damage/decay
 Reduced Topped Lion-tailed Conks Heartwood decay _____
 Flush cuts Other _____ Response growth _____
 Main concern(s) _____

Load on defect N/A Minor Moderate Significant _____
Likelihood of failure Improbable Possible Probable Imminent _____

— Trunk —

Dead/Missing bark Abnormal bark texture/color
 Codominant stems Included bark Cracks
 Sapwood damage/decay Cankers/Galls/Burls Sap ooze
 Lightning damage Heartwood decay Conks/Mushrooms
 Cavity/Nest hole _____ % circ. Depth _____ Poor taper
 Lean _____ ° Corrected? _____
 Response growth _____
 Main concern(s) _____

Load on defect N/A Minor Moderate Significant
Likelihood of failure Improbable Possible Probable Imminent

— Roots and Root Collar —

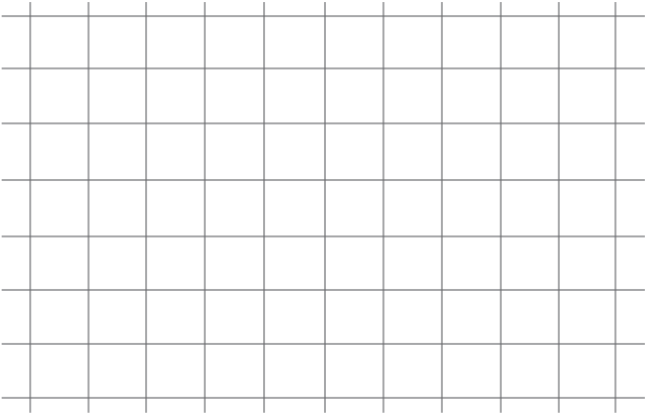
Collar buried/Not visible Depth _____ Stem girdling
 Dead Decay Conks/Mushrooms
 Ooze Cavity _____ % circ.
 Cracks Cut/Damaged roots Distance from trunk _____
 Root plate lifting Soil weakness
 Response growth _____
 Main concern(s) _____

Load on defect N/A Minor Moderate Significant
Likelihood of failure Improbable Possible Probable Imminent

Risk Categorization																							
Condition number	Tree part	Conditions of concern	Part size	Fall distance	Target number	Target protection	Likelihood												Consequences				Risk rating of part (from Matrix 2)
							Failure				Impact				Failure & Impact (from Matrix 1)				Negligible	Minor	Significant	Severe	
							Improbable	Possible	Probable	Imminent	Very low	Low	Medium	High	Unlikely	Somewhat	Likely	Very likely					
1																							
2																							
3																							
4																							

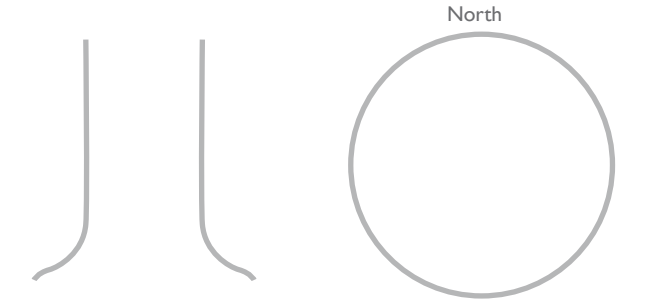
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely



Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low



Notes, explanations, descriptions _____

Mitigation options _____ Residual risk _____
 _____ Residual risk _____
 _____ 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 interval _____
 Data Final Preliminary Advanced assessment needed No Yes-Type/Reason _____
 Inspection limitations None Visibility Access Vines Root collar buried Describe _____