City of Vista

Health Assessment of Coast Live Oak

At Pala Vista Park

SUBMITTED TO:

Yale Jeffery
City of Vista

PREPARED BY:

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OCTOBER 9, 2023

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BACKGROUND AND ASSIGNMENT

The City of Vista contracted WCA to perform a health assessment report on a coast live oak (*Quercus agrifolia*) tree located on the east side of Pala Vista Park adjacent to Pala Vista Drive (see red arrow in Figure 1 below).

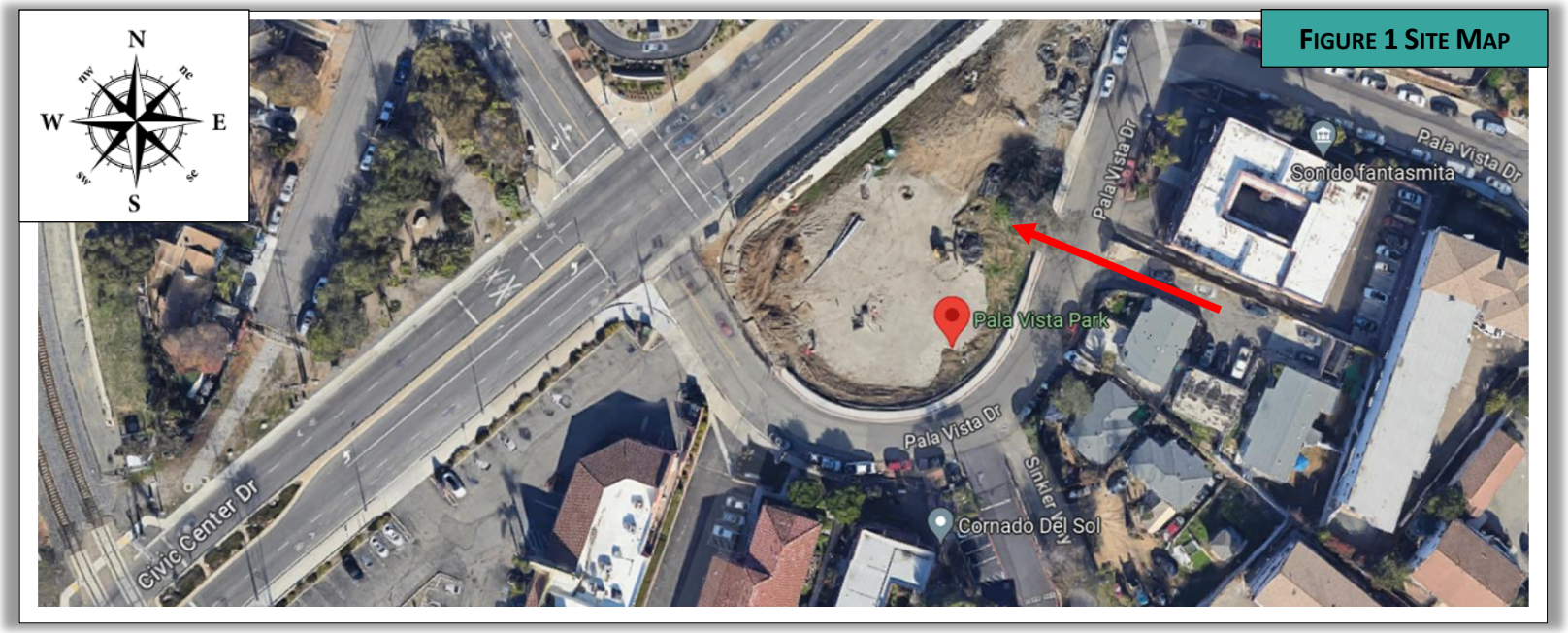


FIGURE 1 SITE MAP

LIMITS OF ASSIGNMENT

This report is based on my visual assessment from a ground-level perspective during the site visit. Some defects may have been obscured or limited by objects such as branches, soil, or the woody structure of the tree itself. My expertise in this matter is limited to arboriculture and is not intended as legal advice. I do not guarantee the safety, health, or condition of the tree.

OBSERVATIONS[1]

I performed my site visit of the subject tree on October 6, 2023, between 8 and 9 a.m., where I made the following general/relevant observations discussed below:

Known Site History

1. Google street view imagery from April 2019 showed the tree to be in fair health at that time.
2. In March of 2022, I performed a Level 2 basic tree risk assessment. In this report, the primary recommendation was removal and replacement due to a moderate risk rating, its declining health, and likely impacts of construction. To help mitigate associated risks, I gave recommended pruning and target management options. Regarding plant health care, I recommended creating a tree protection plan, re-establishing the natural grade around the root flare, top dressing with 1 inch of compost, adding 3-4 inches of mulch, and applying a treatment for pests to help alleviate stress.
3. On June 6, 2022, I treated the tree with a plant growth regulator, a fungicide, and an insecticide. I also recommended fixing the collapsed tree protection zone (TPZ) fencing, installing TPZ signage, mulching, and providing deep, irregular irrigation.

Growing Environment & Dimensions

1. The tree was located on the east side of Pala Vista Park adjacent to Pala Vista Drive, the park was still under construction, and there was no protection zone surrounding the tree.
2. The tree's trunk diameter (at 6” above grade) was 37 inches, with a height of about 30 feet and a canopy width of about 40 feet.
3. Surrounding soils appeared to have a clay loam texture and were generally wet.
4. The area beneath/surrounding the tree had been planted with ornamental landscaping plants, including trees.

Health - Based on the color and density of the foliage, the tree appeared to be in overall poor declining health[2]. There was severe branch dieback, and overall foliar density was relatively low. Most remaining foliage was infested with woolly aphid pests and the fungal pathogen called powdery mildew (likely *Cystotheca spp.)*.

Canopy Structure - The tree's canopy structure was fair to poor; the tree had codominant stems and a pocket of decay in the middle of the tree that was probed to a depth of 14 inches. The branch extending over the road on the east side of the tree had about 14 feet of clearance over the road. Over time, this branch will likely conflict with required fire apparatus clearances.

[1] Refer to photos in Appendices.
[2]Health ratings include dead, poor, fair, good, & excellent.

DISCUSSION & RECOMMENDATION OPTIONS

This tree is in a state of severe decline, has fair to poor structure, has been given a moderate risk rating, and is infested with powdery mildew and wooly aphid pests. All considered, my primary recommendation is removal and replacement. If the tree is preserved, there's a possibility that it remains living for some time but likely in a continued state of decline. If an attempt at saving the tree is desired, I have the following recommendations to consider:

1. Have a licensed applicator spray the trunk of the tree with dinotefuran (insecticide for the aphids) and phosphorus acid (fungicide to help induce systemic stress response). Additionally, I recommend spraying the foliage with an appropriate fungicide (like phosphites, B.T., or thiophanate methyl).
2. Remove landscape ornamental plants from beneath the canopy and adjust irrigation not to keep soils in a wet state. Preferably deep irregular irrigation adjusted for the weather/time of year.
3. Use a supersonic pneumatic digging tool (air spade) to expose and inspect the tree's root flare.
4. Remove the tree if it does not improve within six months.

BIBLIOGRAPHY

Harris, Richard W., James R. Clark, and Nelda P. Matheny. *Arboriculture: Integrated Management of Landscape Tree, Shrubs, and Vines.* New Jersey: Prentice Hall, 2004. Print
(ISA) *International Society of Arboriculture*. Web. March 15, 2014.

Lilly, Sharon J., Edward F. Gilman, and E. Thomas Smiley. Best Management Practices: Tree Pruning (Third Edition). Illinois: International Society of Arboriculture, 2019. Print

American National Standard. Tree, Shrub, and Other Woody Plant Management- Standard Practices 2017 print

APPENDIX A PHOTOS/TREE FINDINGS[3]

Photo #1 Google Street View

Shown above is a Google Street View image of the tree from April 2019 before construction of the park. At this time, the tree appeared to be in fair health.

Photo #2

[3] I utilized a Samsung Galaxy phone issued by WCA to capture photos used in this report. Some images may have been minimally modified to improve clarity or help illustrate and organize information.

APPENDIX A PHOTOS/TREE FINDINGS

Photo #3

Photo #4

Example of a twig covered in a fungal pathogen called powdery mildew (likely *Cystotheca spp.*).

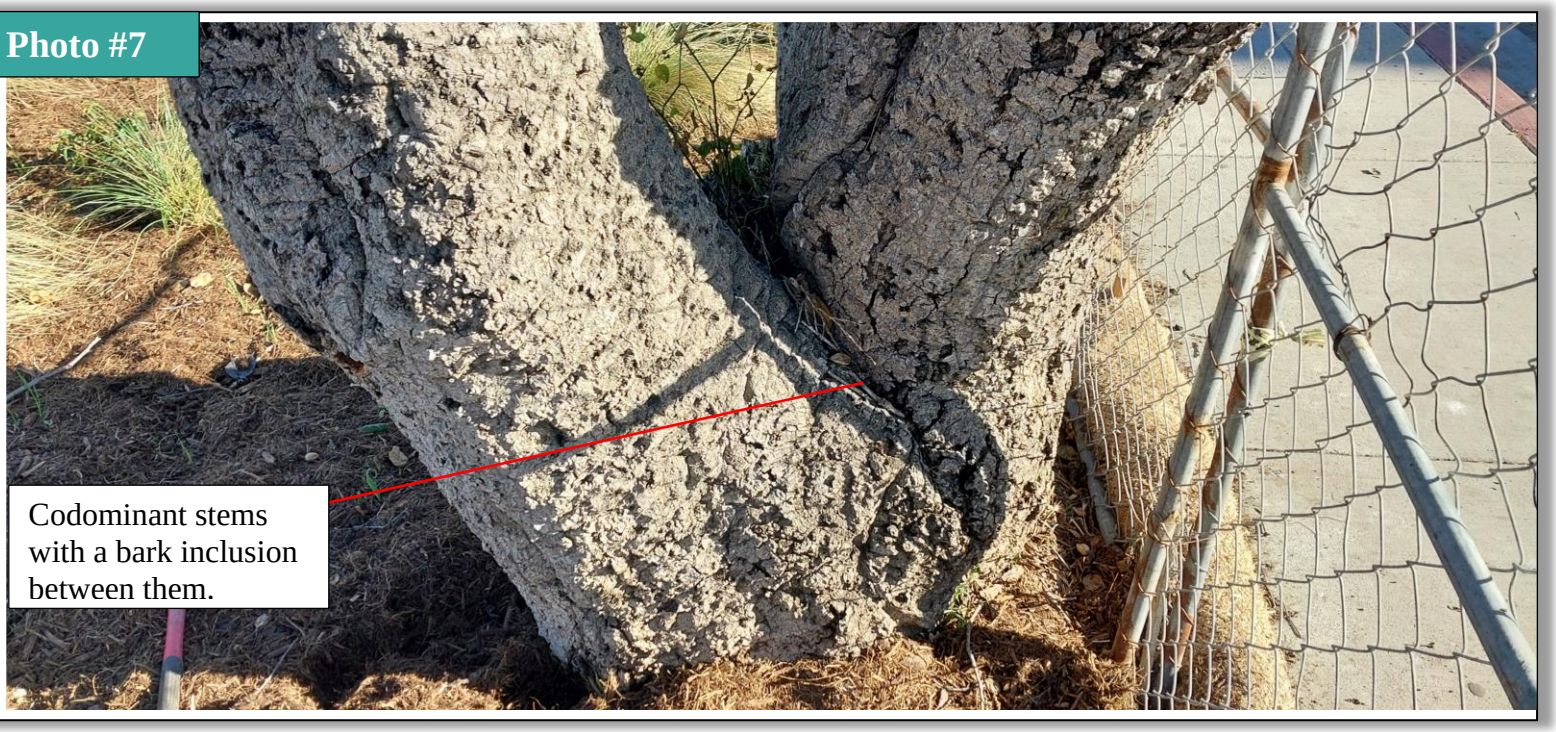
APPENDIX A PHOTOS/TREE FINDINGS

Photo #5

Photo #6

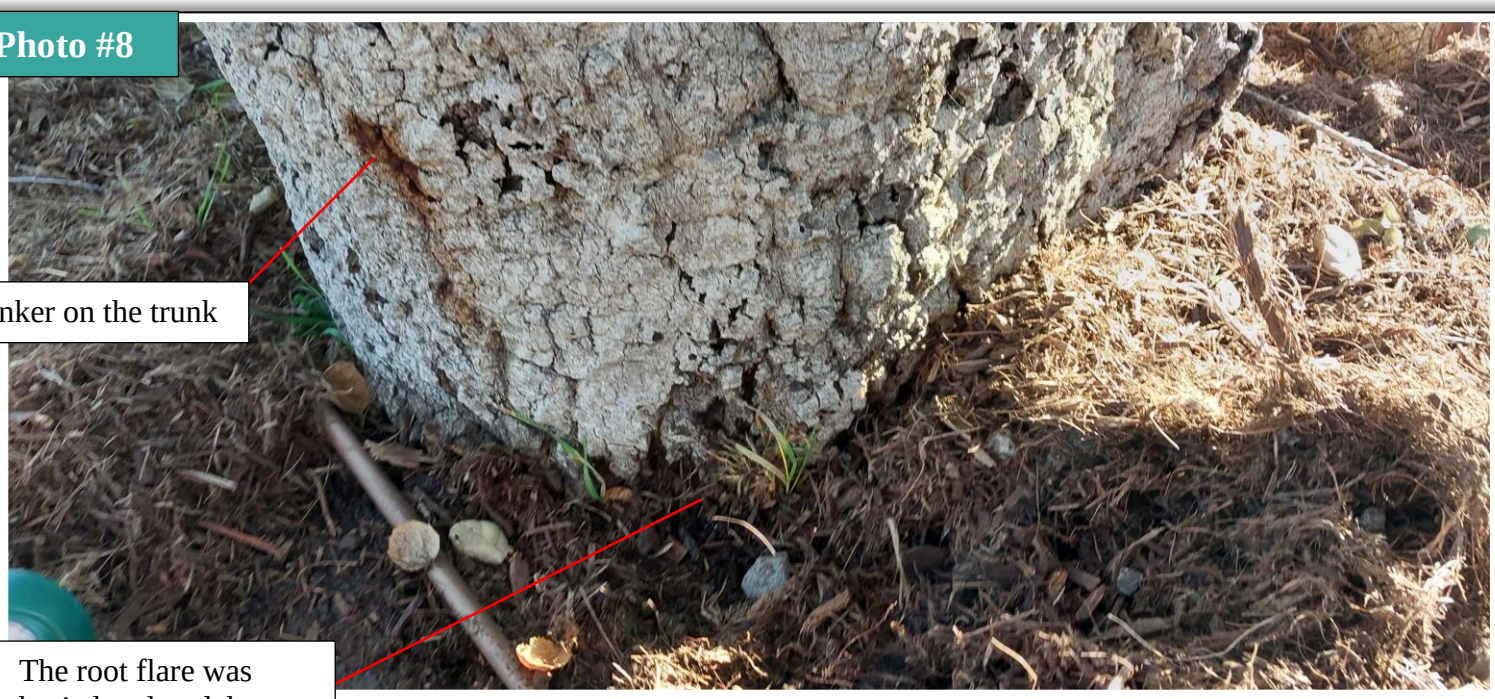
APPENDIX A PHOTOS/TREE FINDINGS

Photo #7



Codominant stems with a bark inclusion between them.

Photo #8



Canker on the trunk

The root flare was buried and mulch was piled up to the trunk.

APPENDIX A PHOTOS/TREE FINDINGS

Photo #9

Photo #10

Another example of what the soil environment was like beneath the tree's canopy. Texture appeared to be a clay loam and moisture was wet/saturated.

ASSUMPTIONS AND LIMITING CONDITIONS

1. This report is intended to be used to aid in tree management decisions. My expertise in this matter is limited to arboriculture, and this report is not intended to be legal advice.
2. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the Consultant can neither guarantee nor be responsible for the accuracy of information provided by others. Standard of Care has been met with regards to this project within reasonable and normal conditions.
3. The Consultant will not be required to give testimony or to attend court by reason of this report unless subsequent contractual agreements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
4. Loss or alteration of any part of this report invalidates the entire report.
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 to whom it is addressed, without the prior written consent of the Consultant.
6. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a stipulated result, a specified value, the occurrence of a subsequent event, nor upon any finding to be reported.
7. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, or coring unless otherwise stated. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the tree(s) or property in question may not arise in the future.
8. 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. It is highly recommended that you follow the arborist recommendations; however, you may choose to accept or disregard the recommendations and/or seek additional advice.
9. 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 specific period of time.
10. Any recommendation and/or performed treatments (including, but not limited to, pruning or 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 any other related issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist can then be expected to consider and reasonably rely on the completeness and accuracy of the information provided.
11. The author has no personal interest or bias with respect to the subject matter of this report or the parties involved. He/she has inspected the subject tree(s), and to the best of their knowledge and belief, all statements and information presented in the report are true and correct.
12. Unless otherwise stated, trees were examined using the risk assessment criteria detailed by the International Society of Arboriculture's publications *Best Management Practices – Tree Risk Assessment* and the *Tree Risk Assessment Manual (Second Edition)*

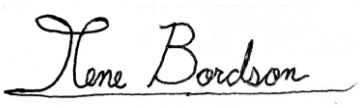
CERTIFICATE OF PERFORMANCE

I, Gene Bordson certify to the best of my present knowledge and belief:

- The statements of fact contained in this report are true and correct.
- I have personally inspected the tree(s) and property referred to in this report and accurately stated my findings.
- I have no current or prospective interest in the tree(s) or the property that is/are the subject of this report, and I have no personal interest or bias with respect to the parties involved.
- The analysis, opinions, and conclusions stated herein are my own are based on current scientific procedures and facts.
- My analysis, opinions, and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices and standards.
- No one provided significant professional assistance to me, except as indicated within the report.
- 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.

I further certify that I am a member in good standing with the International Society of Arboriculture and have been involved in the field of arboriculture for over a decade.

Signed:



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