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# TREES, BUGS, DIRT

## LANDSCAPE CONSULTING & TRAINING

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May 19, 2023

Marin County Parks  
3501 Civic Center Drive  
Suite 260, San Rafael CA

Subject: Evaluation of One Carob (*Ceratonia siliqua*) tree & Proposed New Landscaping in Pueblo Park

### SUMMARY

One medium size carob tree, located next to asphalt pavement, turfgrass, and mixed plantings, will be impacted by proposed resurfacing of the asphalt around it. The tree is in good health and will tolerate proposed improvements if they are installed carefully and the tree is protected. I recommend fencing off the current pervious areas within this tree's dripline & installing trunk protection prior to demolition, followed by professional air spading or hand trenching & root pruning. Crown pruning has created excessive weight on the ends of branches that should be mitigated by careful and conservative reduction pruning of ends. Future infrastructure damage can be reduced by installing a root barrier after roots have been pruned. Paving options that can minimize infrastructure damage and/or facilitate repairing root damage include rubber pavement, synthetic geo or silva (brand name) cells, and structural soils.

### INTRODUCTION

#### ASSIGNMENT

I was hired by Blain Thompson for Marin County Parks (Client) to evaluate one tree and a landscape plan, and provide a written Arborist Report that includes a summary of observations and recommendations.

#### LIMITS OF ASSIGNMENT

Visual assessment only, I did not climb the tree or evaluate tree health or structure by any other means, or evaluate other nearby trees that are smaller than and may be somewhat suppressed by the tree in question.

#### PURPOSE AND USE OF REPORT

This report is provided to assist Marin County in managing the health and safety of one tree.

#### LOCATION

Pueblo Park, San Rafael CA

#### SITE

One dominant carob tree, a suppressed or stunted carob tree, and a suppressed or stunted holly oak (*Quercus illex*) make up a loosely connected stand of trees, next to a large turf area, and a mixed species planting. Asphalt pavement is on one side of the dominant carob, very close to its trunk, the other carob is surrounded by asphalt pavement and a port-a-potty, and the holly oak has sidewalk on one side and mixed plantings around it. Another small landscape cutout is nearby. The site is relatively level.

## OBSERVATIONS

### METHODS

I visited the site on May 1, 2023 between 9:50 AM-10:30 AM and met with the community member who designed a resurfacing plan to minimally impact the tree. Then I visually evaluated the tree and surrounding area, measured its trunk at 54 inches above grade using a circumference tape, and measured its height using an electronic hypsometer.

### DATA

- Trunk circumference = 70 inches (22.3 inches in diameter)
- Tree height = 30 feet
- Health good, Structure fair, Form fair<sup>1</sup>
- +approximately 50% of rooting zone within dripline has limited root access due to asphalt paving (**H**), **pavement cracked & uplifted near tree within and beyond its dripline**
- +root crown region clear, pavement one foot from trunk (**H**)
- +trunk upright, not well tapered (**S,F**), multiple historic wounds from poor (flush) pruning cuts that are infected and oozing, sapsucker damage, some woundwood forming(**H,S**)
- +scaffold branches multiple, codominant, one split, large open wound near scaffold failure, strong growth response, multiple sunken flush cut wounds oozing(**S,F**)
- +smaller branches removed in lower 1/2 of tree, good density, heavy end weight (**S,F**)
- +twig growth & foliage color & size good (**H**)
- + dominant tree, symmetrical (**F**)
- +visible landmark from street and sidewalk (**F**)

## DISCUSSION

### RESURFACING PLAN TO MINIMIZE IMPACT TO CAROB TREE

This plan will have some positive impacts as it provides more pervious surface area for tree roots, but it will also negatively impact the tree by installing new hardscapes within the tree's rooting zone beyond its dripline, and removing roots that have grown into the asphalt pavement. Because the tree is in good health the negative impacts from root pruning & the loss of pervious surface area within its rooting zone may not be measurable.

## CONCLUSION

Root loss will probably not result in measurably reduced health, and the increased rooting zone volume may eventually offset the damages to roots & losses of pervious surface area if preservation measures are incorporated beginning prior to demolition through new hardscape installation phases.

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<sup>1</sup> “**H**” indicates a health related item, “**S**” indicates a structure related item, “**F**” indicates a form related item

## RECOMMENDATIONS

### PRIOR TO DEMOLITION

- Prune
  - Natural pruning system
  - Reduce likelihood of branch failure by properly reducing branches 1-2" in diameter, not to exceed 15 branches removed
- Install chain-link fencing anchored in the soil around entire previous planting bed that tree is in.
- Install trunk protection on side facing pavement, either straw wattles wrapped up trunk, or 2"X4"X12' lumber strapped to trunk & covered with orange, plastic snow fencing.

### AFTER DEMOLITION

- Professionally air spade or hand trench along line of limits of work.
- Professionally prune roots using sharp tools along the line of limits of work.
- Install root barrier along edge of pruned roots that will serve to protect roots from new pavement material & slow new growth into pavement, options include a wide range of materials and products including plastic interlocking root barriers, steel plates, and cloth with slow release herbicide.
- If root barrier is not installed immediately after root pruning, place fill soil over pruned roots & cover with wet burlap, and then install a thin layer of plastic in between roots & new pavement material to prevent root damage from new pavement materials.

### CONSIDER PAVING OPTIONS THAT MAY REDUCE NEGATIVE IMPACTS TO TREE

- Rubber pavement
- Geocell, Silva Cell
- Structural soil

## CERTIFICATION OF PERFORMANCE

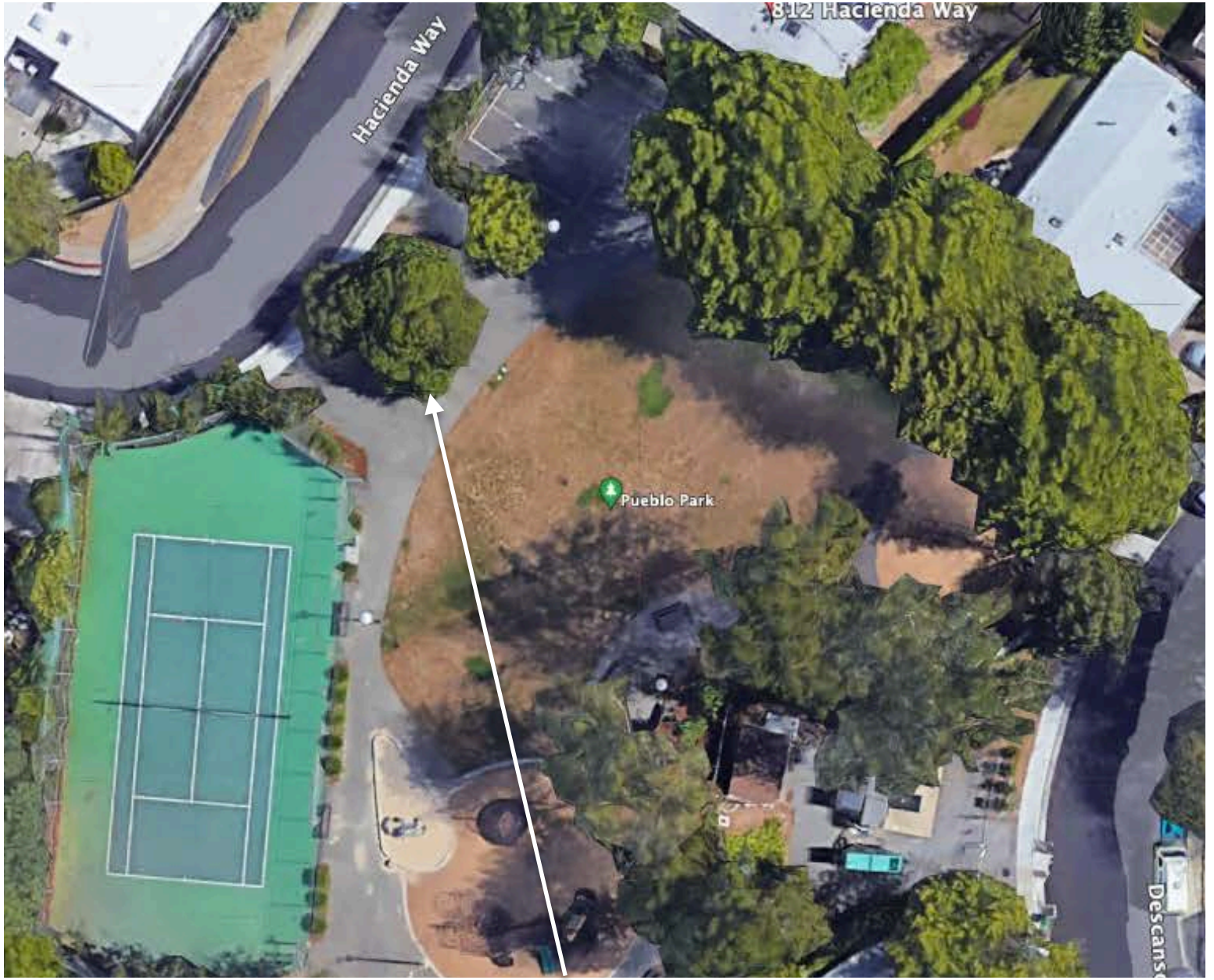
I, Michael Baefsky certify:

- That I have personally inspected the tree referred to in this report, and have stated my findings accurately. The extent of the evaluation is stated in the attached report;
- That I have reviewed Marin County Tree Protection Ordinance documents and related information;
- That I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions, and conclusions stated herein are my own;
- That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted professional practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report;
- That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I further certify that I am Consulting Arborist #456, Certified Arborist & Qualified Tree Risk Assessor (requalification in process) #WE0222A, and have been involved in the practice of Arboriculture, Integrated Pest Management, Plant Health Care and Ecological Soils Management, and the study of soils and horticulture for over thirty years.

*Michael Baefsky*

**LOCATION MAP**



tree in question



**DIGITAL IMAGES**



tree in question with visible uplifting of asphalt pavement nearby caused by roots





torn scaffold branch with infection      weak included bark scaffold connections





sunken historical flush cut with strong woundwood response, some disease infection also