
TREES, BUGS, DIRT

LANDSCAPE CONSULTING & TRAINING

ARBORIST REPORT

Doyle Property - 20455 5th St., E., Sonoma CA

February 7, 2020



Prepared For: DeNova Homes
1500 Willow Pass Court
Concord CA 94520

TABLE OF CONTENTS

SUMMARY3

INTRODUCTION.....3

 PURPOSE AND USE3

 ASSIGNMENT3

 LIMITS OF ASSIGNMENT3

 BACKGROUND3

OBSERVATIONS3-4

 LOCATION.....3

 SETTING3

 METHODS3-4

 DATA4

 ANALYSIS4

 NON-INTRUSION ZONES (NIZ)4

APPENDIX A – DATA5

APPENDIX B - ANALYSIS + NIZ14

APPENDIX C - GLOSSARY20

APPENDIX D – TREE LOCATION MAP21

APPENDIX E - CERTIFICATE OF PERFORMANCE ..22

@Trees, Bugs, Dirt 2020. All rights reserved. This report, dated Friday, February 7, 2020 is for the exclusive and confidential use of Trees, Bugs, Dirt clients and their representatives for this project only, and shall not be reproduced in whole or in part on other occasions without the written permission of Michael Baefsky.

SUMMARY

One hundred and thirteen trees are inventoried on the site. Trunk diameters of trees range from 90.1" to 5.1", averaging 16.3". Tree health, structural quality, and form ranges from very poor to good, averaging fair. All trees are proposed for removal.

INTRODUCTION

PURPOSE AND USE

This report is intended to provide information for the Client and the City of Sonoma as part of a development permit.

ASSIGNMENT

I was hired by DeNova Homes (Client), to measure, map, digitally image, inventory & evaluate trees at the Doyle family property in Sonoma CA. and to provide an Arborist Report that includes a summary of my observations & a location map.

LIMITS OF ASSIGNMENT

- Did not evaluate trees below ground or aerially, nor use invasive or destructive methods to assess health
- Did not evaluate trees less than 5" in diameter
- No recommendations provided in this report

BACKGROUND

The City of Sonoma Municipal Code, Chapter 12.08 Tree Ordinance, requires an Arborist Report prepared by an International Society of Arboriculture Certified Arborist that includes tree genus & species, shape, diameter, non-intrusion zone, and whether removal or a form of preservation is proposed.

OBSERVATIONS

LOCATION

The site is located at 20455 5th St., E., Sonoma CA, on the corner of 5th St. East and Napa Road.

SETTING

It is a relatively flat site that includes a single family dwelling and fenced backyard, a garage, an out building, a covered shed area, deep ditches on both streets, and long fence lines on two sides with a driveway on one side and housing on the other side. Soils in the area of the site are mapped as Huichica series, an imperfectly drained soil with slow runoff has slow and moderately to very slow permeability. Huichica series typically are loam textured for 14 inches, where most plant roots are concentrated. The loam covers a sandy clay layer, which rests on a clay, then sandy loam, then loamy sand, then sandy clay loam down four feet.

METHODS

On November 22, 2019 I identified tree species, measured **trunk circumferences** at 4.5 feet above grade, tagged trunks with numbered tags, located trees visually on a site map, digitally imaged trees and assessed their **health, structural quality** and **form**. I used Google Earth to approximately locate trees in the office.

Documents used:

- US Soil Survey, Standard Soil Series Descriptions, Oregon State University
- Conceptual Site Plan, WHA aka William Hezmalhalch, Inc., 1.24.20

Measurements & Calculations

- Trunk circumferences measured at 4.5 feet above grade, unless otherwise noted due to access problems
- Multiple trunks are combined, and reported as (cumulative) diameter
- Trunk circumferences divided by 3.14 to calculate diameter, and rounded off to one significant digit

Health Structure & Form Evaluation Standards

- + numerical rating system; zero (dead), one (very poor), two (poor), three (fair), four (good) and five (excellent)
- + form assessed by rating specimens on their deviance from the norm for the species in this region, visual qualities such as attractiveness, and engineering functions such as screening, shading and creating views
- + qualitative descriptions and items assessed for health & structure include
 - rooting zone - bare, mulched, limited space, weeds, competing vegetation, moisture, debris
 - root crown region (trunk & root junction) - buried, clear, pests, diseases, wet, wounds, cavities
 - trunk - taper, lack of taper, wounds, lean, growth cracks, stress cracks, pests, diseases, wounds
 - scaffold (large, major) branches - taper, distribution of branches, strength of branch connections, wounds, pests
 - smaller branches - distribution, size, amount, strength of connections, pests, diseases
 - twigs - annual growth, color, size, distribution, dead/live
 - foliage - color, size, distribution, pests, diseases, leaf fall

DATA - See Appendix A for complete data set

- 113 trees measured, evaluated, tagged, digitally imaged & located using Google Earth
- 15 species identified
- trunk diameter ranged from 90.1 inches to 5.1 inches, averaging 16.3 inches

ANALYSIS & NON-INTRUSION ZONES - See Appendix B for complete data set

- health, structure, and form ranged from very poor to good, averaging fair
- structure ranged from very poor to good, averaging poor
- form ranged from very poor to good, averaging poor-fair
- non-intrusion zones ranged from six to thirty two radial feet

TREES TO BE REMOVED & PRESERVED

All trees are proposed for removal based on the conceptual development plan.

APPENDIX A - DATA

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|------------------|-------------------------------------|---------------------------|--|--|
| 1 | Hinoki cypress | <i>Chaemacyparis obtusa</i> | 26,31,36 | 29.6 | Dying |
| 2 | Chinese pistache | <i>Pistacia chinensis</i> | 32.5 | 10.4 | |
| 3 | Valley oak | <i>Quercus lobata</i> | 65.0 | 20.7 | Elevated risk scaffold branches over house |
| 4 | Valley oak | <i>Quercus lobata</i> | 112,36 | 47.1 | Elevated risk scaffold branches over house , 5% deadwood |
| 5 | Valley oak | <i>Quercus lobata</i> | 64.0 | 20.4 | |
| 6 | Valley oak | <i>Quercus lobata</i> | 22.5 | 7.2 | Suppressed |
| 7 | Valley oak | <i>Quercus lobata</i> | 36.0 | 11.5 | |
| 8 | Valley oak | <i>Quercus lobata</i> | 22.5 | 7.2 | Suppressed into fence |
| 9 | Deodar cedar | <i>Cedrus deodara</i> | 43.0 | 13.7 | Codominant |
| 10 | Deodar cedar | <i>Cedrus deodara</i> | 44.0 | 14.0 | Codominant |
| 11 | Grey pine | <i>Pinus sabiniana</i> | 67.0 | 21.3 | Codominant trunks with included bark |
| 12 | Valley oak | <i>Quercus lobata</i> | 20,36.5 | 18.0 | Twisted one sided trunk |
| 13 | Valley oak | <i>Quercus lobata</i> | 18.0 | 5.7 | |
| 601 | Valley oak | <i>Quercus lobata</i> | 53.0 | 16.9 | Drainage ditch, topped & headed back near power lines, unbalanced |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|--------------|----------------------------------|------------------------|---|--|
| 602 | Black locust | <i>Robinia pseudoacacia</i> | 18.0 | 5.7 | Drainage ditch edge stunted, topped |
| 603 | Valley oak | <i>Quercus lobata</i> | 26.5 | 8.4 | Fence line stunted sapling, near drainage ditch |
| 604 | Valley oak | <i>Quercus lobata</i> | 26.0 | 8.3 | Drainage ditch, suppressed |
| 605 | Valley oak | <i>Quercus lobata</i> | 128.0 | 40.8 | Drainage ditch, repeatedly topped for power lines & pole, dominant |
| 606 | Valley oak | <i>Quercus lobata</i> | 28,14 | 13.4 | Edge of drainage ditch near power pole, suppressed |
| 607 | Valley oak | <i>Quercus lobata</i> | 283.0 | 90.1 | Suppressed |
| 608 | Valley oak | <i>Quercus lobata</i> | 144,21.5 | 52.7 | Edge of drainage ditch, leaning twisted trunk, unbalanced crown , dominant |
| 609 | Valley oak | <i>Quercus lobata</i> | 19.0 | 6.1 | Suppressed |
| 610 | Valley oak | <i>Quercus lobata</i> | 28.0 | 8.9 | Edge of drainage ditch |
| 611 | Valley oak | <i>Quercus lobata</i> | 36.0 | 11.5 | Edge of ditch, flagged & marked, codominant |
| 612 | Almond | <i>Prunus dulcis</i> | 15.7,12.6 | 9.0 | Edge of eroding drainage ditch |
| 613 | Valley oak | <i>Quercus lobata</i> | 27.5 | 8.8 | Edge of drainage ditch, suppressed |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|------------------|-------------------------------------|---------------------------|--|---|
| 614 | Valley oak | <i>Quercus lobata</i> | 72.0 | 22.9 | Edge of drainage ditch, dominant |
| 615 | Valley oak | <i>Quercus lobata</i> | 37.0 | 11.8 | Edge of drainage ditch suppressed |
| 616 | Valley oak | <i>Quercus lobata</i> | 51.0 | 16.2 | Leaning trunk Edge of drainage ditch codominant |
| 617 | Valley oak | <i>Quercus lobata</i> | 43,54,93 | 61.1 | Edge of drainage ditch codominant , multiple trunks |
| 618 | Valley oak | <i>Quercus lobata</i> | 29.0 | 9.2 | Edge of drainage ditch |
| 619 | Valley oak | <i>Quercus lobata</i> | 37.0 | 11.8 | Edge of drainage ditch codominant trunks with included bark |
| 620 | Tree of heaven | <i>Ailanthus altissima</i> | 19.0 | 6.1 | Edge of drainage ditch, major weed species, invasive exotic |
| 621 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 48.0 | 15.3 | Edge of drainage ditch |
| 622 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 18.0 | 5.7 | In drainage ditch , suppressed |
| 623 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 45.0 | 14.3 | Edge of drainage ditch |
| 624 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 18.0 | 5.7 | Edge of drainage ditch |
| 625 | Blackwood acacia | <i>Acacia melanoxylon</i> | 26.0 | 8.3 | Fenceline |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|-----------------|-------------------------------------|---------------------------|--|---|
| 626 | Valley oak | <i>Quercus lobata</i> | 21.0 | 6.7 | Topped resprouted top |
| 627 | Valley oak | <i>Quercus lobata</i> | 42.0 | 13.4 | Next to driveway |
| 628 | Valley oak | <i>Quercus lobata</i> | 28,18 | 14.6 | Next to drainage ditch |
| 629 | Valley oak | <i>Quercus lobata</i> | 51.5 | 16.4 | Suppressed, leaning trunk |
| 630 | Valley | <i>Quercus lobata</i> | 33.5 | 10.7 | Stunted , trunk wounds |
| 631 | Valley oak | <i>Quercus lobata</i> | 26.5 | 8.4 | Leaning one sided |
| 632 | Valley oak | <i>Quercus lobata</i> | 46.5 | 14.8 | Codominant |
| 633 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 106.8 | 34.0 | Multiple trees adjoining |
| 634 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 25,21,13 | 18.8 | Multiple trees adjoining |
| 635 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 40,38 | 24.8 | Multiple trees adjoining |
| 636 | Monterey pine | <i>Pinus radiata</i> | 53.0 | 16.9 | Leaning trunk |
| 637 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 27.0 | 8.6 | Multiple trees adjoining |
| 638 | Lombardy poplar | <i>Populus nigra</i> 'Italica' | 20.0 | 6.4 | Multiple trees adjoining, suppressed |
| 639 | Valley oak | <i>Quercus lobata</i> | 34.0 | 10.8 | Near fence |
| 640 | Monterey pine | <i>Pinus radiata</i> | 24.0 | 7.6 | Codominant suppressed, western pine gall blister rust disease |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|----------------|----------------------------------|------------------------|---|--|
| 641 | Monterey pine | <i>Pinus radiata</i> | 34.0 | 10.8 | Dominant, western pine gall blister rust disease |
| 642 | Valley oak | <i>Quercus lobata</i> | 29.0 | 9.2 | Next to fence |
| 643 | Valley oak | <i>Quercus lobata</i> | 26.5,24,32,26 | 34.6 | Multiple trunks with included bark, next to fence & power pole |
| 644 | Valley oak | <i>Quercus lobata</i> | 22.0 | 7.0 | Dense grove |
| 645 | Valley oak | <i>Quercus lobata</i> | 21.0 | 6.7 | Dense grove |
| 646 | Valley oak | <i>Quercus lobata</i> | 18.0 | 5.7 | Dense grove |
| 647 | Monterey pine | <i>Pinus radiata</i> | 37.0 | 11.8 | Dominant |
| 648 | Valley oak | <i>Quercus lobata</i> | 18.5 | 5.9 | Suppressed no taper |
| 649 | Monterey pine | <i>Pinus radiata</i> | 26.5 | 8.4 | Dominant |
| 650 | Valley oak | <i>Quercus lobata</i> | 36,43 | 25.2 | Codominant |
| 651 | Valley oak | <i>Quercus lobata</i> | 56.0 | 17.8 | Codominant |
| 652 | Valley oak | <i>Quercus lobata</i> | 49.0 | 15.6 | Solo, next to open shed |
| 653 | Valley oak | <i>Quercus lobata</i> | 21,9.5 | 9.7 | Next to shed, suppressed |
| 654 | Valley oak | <i>Quercus lobata</i> | 43.0 | 13.7 | Near shed dominant |
| 655 | Valley oak | <i>Quercus lobata</i> | 30.0 | 9.6 | Suppressed, twisted trunk |
| 656 | Evergreen pear | <i>Pyrus kawakamii</i> | 15,28,18 | 19.4 | Stump sprout |
| 657 | Valley oak | <i>Quercus lobata</i> | 37.0 | 11.8 | |
| 658 | Evergreen pear | <i>Pyrus kawakamii</i> | 20.0 | 6.4 | Suppressed |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|---------------|----------------------------------|------------------------|---|---|
| 659 | Valley oak | <i>Quercus lobata</i> | 37.0 | 11.8 | Leaning trunk |
| 660 | Valley oak | <i>Quercus lobata</i> | 52.0 | 16.6 | |
| 661 | Valley oak | <i>Quercus lobata</i> | 38,34 | 22.9 | Codominant scaffolds with included bark |
| 662 | Monterey pine | <i>Pinus radiata</i> | 85.0 | 27.1 | Codominant, fire hazard branches on ground |
| 663 | Monterey pine | <i>Pinus radiata</i> | 85.0 | 27.1 | Codominant, fire hazard branches on ground, trunk leaning, broken branches, topped, unbalanced, red turpentine beetle attacks, elevated risk , topped |
| 664 | Valley oak | <i>Quercus lobata</i> | 21.0 | 6.7 | Codominant |
| 665 | Valley oak | <i>Quercus lobata</i> | 20.0 | 6.4 | Codominant |
| 666 | Ca bay laurel | <i>Umbellularia californica</i> | 16.0 | 5.1 | |
| 667 | Monterey pine | <i>Pinus radiata</i> | 80.0 | 25.5 | 99% Dead, historic trunk failure, probable trunk failure |
| 668 | Valley oak | <i>Quercus lobata</i> | 33.5,44 | 24.7 | |
| 669 | Monterey pine | <i>Pinus radiata</i> | 76.0 | 24.2 | 90% Dead, branches on ground fire hazard elevated risk |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|----------------------|-------------------------------------|---------------------------|--|---|
| 670 | Monterey pine | <i>Pinus radiata</i> | 68,38 | 36.9 | Multiple trunks, branches to ground fire Codominant, red turpentine beetle attacks, raccoon latrine |
| 671 | Black locust | <i>Robinia pseudoacacia</i> | 35,26,24,68 | 48.7 | |
| 672 | Black locust | <i>Robinia pseudoacacia</i> | 46,44,49,32 | 54.5 | Large conk at root crown |
| 673 | Valley oak | <i>Quercus lobata</i> | 23.0 | 7.3 | Intertwined with 672 |
| 674 | Western red cedar | <i>Thuja plicata</i> | 27,18 | 14.3 | Intertwined with valley oak & incense cedar, low branches on ground fire hazard, codominant trunks |
| 675 | Western red cedar | <i>Thuja plicata</i> | 23,29 | 16.6 | Intertwined with valley oak & incense cedar, low branches on ground fire hazard, codominant trunks |
| 676 | Western red cedar | <i>Thuja plicata</i> | 49.0 | 15.6 | Intertwined with valley oak |
| 677 | Valley oak | <i>Quercus lobata</i> | 39.0 | 12.4 | Grove of younger trees, dominant |
| 678 | Valley oak | <i>Quercus lobata</i> | 18.0 | 5.7 | Suppressed |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|-------------------|-------------------------------------|---------------------------|--|---|
| 679 | Valley oak | <i>Quercus lobata</i> | 43.0 | 13.7 | Suppressed |
| 680 | Valley oak | <i>Quercus lobata</i> | 23.0 | 7.3 | Beanpole structure, suppressed |
| 681 | Valley oak | <i>Quercus lobata</i> | 40.0 | 12.7 | |
| 682 | Grey pine | <i>Pinus sabiniana</i> | 23.0 | 7.3 | Suppressed |
| 683 | Western red cedar | <i>Thuja plicata</i> | 38,30,33 | 32.2 | Dying, multiple trunks with included bark |
| 684 | Valley oak | <i>Quercus lobata</i> | 47.0 | 15.0 | |
| 685 | Douglas fir | <i>Pseudotsuga menziesii</i> | 65.0 | 20.7 | |
| 686 | Deodar cedar | <i>Cedrus deodara</i> | 52.0 | 16.6 | Branches on ground fire hazard |
| 687 | Deodar cedar | <i>Cedrus deodara</i> | 35.0 | 11.1 | Branches on ground fire hazard |
| 688 | Grey pine | <i>Pinus sabiniana</i> | 47.5 | 15.1 | 2 & 3 needle |
| 689 | Deodar cedar | <i>Cedrus deodara</i> | 40.8 | 13.0 | Branches on ground fire hazard |
| 690 | Deodar cedar | <i>Cedrus deodara</i> | 19.5 | 6.2 | Branches on ground fire hazard |
| 691 | Deodar cedar | <i>Cedrus deodara</i> | 16.0 | 5.1 | Branches on ground fire hazard |
| 692 | Deodar cedar | <i>Cedrus deodara</i> | 20.0 | 6.4 | Branches on ground fire hazard |
| 693 | Italian cypress | <i>Cupressus sempervirens</i> | 25,9 | 10.8 | Dieback on one side, disease |
| 694 | Western red cedar | <i>Thuja plicata</i> | 29.5 | 9.4 | Dying |

| # | Common name | Scientific name (Genus, species) | Circumference (inches) | Diameter (inches) <i>cumulative if multiple trunks</i> | Notes |
|-----|-------------------|-------------------------------------|---------------------------|--|---|
| 695 | Deodar cedar | <i>Cedrus deodara</i> | 27.5 | 8.8 | Stunted one sided, branches on ground fire hazard |
| 696 | Western red cedar | <i>Thuja plicata</i> | 36.5 | 11.6 | Dying |
| 697 | Valley oak | <i>Quercus lobata</i> | 47.5 | 15.1 | |
| 698 | Grey pine | <i>Pinus sabiniana</i> | 83.5 | 26.6 | |
| 699 | Deodar cedar | <i>Cedrus deodara</i> | 33.0 | 10.5 | |
| 700 | Deodar cedar | <i>Cedrus deodara</i> | 45.5 | 14.5 | Branches on ground fire hazard |

APPENDIX B - ANALYSIS & NON-INTRUSION ZONE RADII

| # | Common name | Health | Health rated | Structure | Structure rated | Form | Form rated | Non-Intrusion Zone radius (feet) |
|-----|------------------|-----------|--------------|-----------|-----------------|-----------|------------|----------------------------------|
| 1 | Hinoki cypress | very poor | 1 | very poor | 1 | very poor | 1 | 20 |
| 2 | Chinese pistache | good | 4 | good | 4 | good | 4 | 10-12 |
| 3 | Valley oak | fair | 3 | fair | 3 | good | 4 | 16-18 |
| 4 | Valley oak | fair | 3 | fair | 3 | good | 4 | 28-32 |
| 5 | Valley oak | fair | 3 | fair | 3 | good | 4 | 16-18 |
| 6 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 7 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12 |
| 8 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 9 | Deodar cedar | good | 4 | good | 4 | good | 4 | 12-16 |
| 10 | Deodar cedar | good | 4 | good | 4 | good | 4 | 12-16 |
| 11 | Grey pine | fair | 3 | poor | 2 | fair | 3 | 16-18 |
| 12 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 16 |
| 13 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10 |
| 601 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 12-16 |
| 602 | Black locust | very poor | 1 | very poor | 1 | very poor | 1 | 10 |
| 603 | Valley oak | poor | 2 | poor | 2 | poor | 2 | 10-12 |
| 604 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 605 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 24-28 |
| 606 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 12-16 |
| 607 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 32 |
| 608 | Valley oak | fair | 3 | poor | 2 | fair | 3 | 32 |

| # | Common name | Health | Health rated | Structure | Structure rated | Form | Form rated | Non-Intrusion Zone radius (feet) |
|-----|------------------|--------|--------------|-----------|-----------------|-----------|------------|----------------------------------|
| 609 | Valley oak | fair | 3 | poor | 2 | very poor | 1 | 10 |
| 610 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 611 | Valley oak | good | 4 | poor | 2 | poor | 2 | 12 |
| 612 | Almond | poor | 2 | very poor | 1 | very poor | 1 | 10-12 |
| 613 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 614 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 16-18 |
| 615 | Valley oak | poor | 2 | poor | 2 | poor | 2 | 12 |
| 616 | Valley oak | fair | 3 | poor | 2 | fair | 3 | 12-16 |
| 617 | Valley oak | poor | 2 | poor | 2 | good | 4 | 32 |
| 618 | Valley oak | fair | 3 | fair | 3 | poor | 2 | 10-12 |
| 619 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 12 |
| 620 | Tree of heaven | good | 4 | fair | 3 | fair | 3 | 10 |
| 621 | Lombardy poplar | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 622 | Lombardy poplar | poor | 2 | fair | 3 | poor | 2 | 10 |
| 623 | Lombardy poplar | poor | 2 | poor | 2 | poor | 2 | 12-16 |
| 624 | Lombardy poplar | poor | 2 | fair | 3 | poor | 2 | 10 |
| 625 | Blackwood acacia | good | 4 | good | 4 | good | 4 | 10-12 |
| 626 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 627 | Valley oak | fair | 3 | good | 4 | fair | 3 | 12-16 |
| 628 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |

| # | Common name | Health | Health rated | Structure | Structure rated | Form | Form rated | Non-Intrusion Zone radius (feet) |
|-----|-----------------|--------|--------------|-----------|-----------------|------|------------|----------------------------------|
| 629 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 12-16 |
| 630 | Valley | poor | 2 | poor | 2 | poor | 2 | 10-12 |
| 631 | Valley oak | fair | 3 | fair | 3 | poor | 2 | 10-12 |
| 632 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 633 | Lombardy poplar | poor | 2 | poor | 2 | fair | 3 | 20-24 |
| 634 | Lombardy poplar | poor | 2 | poor | 2 | fair | 3 | 16-18 |
| 635 | Lombardy poplar | poor | 2 | poor | 2 | fair | 3 | 18-20 |
| 636 | Monterey pine | good | 4 | fair | 3 | fair | 3 | 12-16 |
| 637 | Lombardy poplar | fair | 3 | fair | 3 | fair | 3 | 10-12 |
| 638 | Lombardy poplar | poor | 2 | fair | 3 | poor | 2 | 10 |
| 639 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 10-12 |
| 640 | Monterey pine | fair | 3 | poor | 2 | fair | 3 | 10-12 |
| 641 | Monterey pine | fair | 3 | fair | 3 | fair | 3 | 10-12 |
| 642 | Valley oak | poor | 2 | poor | 2 | poor | 2 | 10-12 |
| 643 | Valley oak | good | 4 | poor | 2 | fair | 3 | 20-24 |
| 644 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 10-12 |
| 645 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 646 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 10 |
| 647 | Monterey pine | good | 4 | good | 4 | fair | 3 | 12 |
| 648 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10 |

| # | Common name | Health | Health rated | Structure | Structure rated | Form | Form rated | Non-Intrusion Zone radius (feet) |
|-----|----------------|-----------|--------------|-----------|-----------------|-----------|------------|----------------------------------|
| 649 | Monterey pine | good | 4 | fair | 3 | fair | 3 | 10-12 |
| 650 | Valley oak | good | 4 | fair | 3 | good | 4 | 18-20 |
| 651 | Valley oak | good | 4 | fair | 3 | good | 4 | 16 |
| 652 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 653 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 10-12 |
| 654 | Valley oak | good | 4 | fair | 3 | good | 4 | |
| 655 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 656 | Evergreen pear | very poor | 1 | very poor | 1 | very poor | 1 | 16-18 |
| 657 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12 |
| 658 | Evergreen pear | very poor | 1 | very poor | 1 | very poor | 1 | 10 |
| 659 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 12 |
| 660 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 661 | Valley oak | good | 4 | fair | 3 | fair | 3 | 16-18 |
| 662 | Monterey pine | good | 4 | good | 4 | good | 4 | 18-20 |
| 663 | Monterey pine | fair | 3 | poor | 2 | fair | 3 | 18-20 |
| 664 | Valley oak | good | 4 | poor | 2 | poor | 2 | 10-12 |
| 665 | Valley oak | good | 4 | poor | 2 | poor | 2 | 10 |
| 666 | Ca bay laurel | good | 4 | good | 4 | good | 4 | 6-10 |
| 667 | Monterey pine | very poor | 1 | very poor | 1 | very poor | 1 | 18-20 |
| 668 | Valley oak | good | 4 | fair | 3 | fair | 3 | 18-20 |

| # | Common name | Health | Health rated | Structure | Structure rated | Form | Form rated | Non-Intrusion Zone radius (feet) |
|-----|-------------------|-----------|--------------|-----------|-----------------|-----------|------------|----------------------------------|
| 669 | Monterey pine | very poor | 1 | very poor | 1 | very poor | 1 | 18 |
| 670 | Monterey pine | fair | 3 | poor | 2 | fair | 3 | 24-28 |
| 671 | Black locust | poor | 2 | fair | 3 | fair | 3 | 32 |
| 672 | Black locust | poor | 2 | fair | 3 | fair | 3 | 32 |
| 673 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10-12 |
| 674 | Western red cedar | fair | 3 | poor | 2 | poor | 2 | 12-16 |
| 675 | Western red cedar | good | 4 | poor | 2 | fair | 3 | 12-16 |
| 676 | Western red cedar | good | 4 | fair | 3 | fair | 3 | 12-16 |
| 677 | Valley oak | good | 4 | fair | 3 | fair | 3 | 12 |
| 678 | Valley oak | fair | 3 | poor | 2 | poor | 2 | 10 |
| 679 | Valley oak | fair | 3 | fair | 3 | fair | 3 | |
| 680 | Valley oak | poor | 2 | poor | 2 | poor | 2 | 10-12 |
| 681 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 682 | Grey pine | good | 4 | fair | 3 | poor | 2 | 10-12 |
| 683 | Western red cedar | very poor | 1 | poor | 2 | poor | 2 | 20-24 |
| 684 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 685 | Douglas fir | fair | 3 | good | 4 | fair | 3 | 16-18 |
| 686 | Deodar cedar | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 687 | Deodar cedar | fair | 3 | poor | 2 | poor | 2 | 10-12 |

| # | Common name | Health | Health rated | Structure | Structure rated | Form | Form rated | Non-Intrusion Zone radius (feet) |
|-----|-------------------|-----------|--------------|-----------|-----------------|------|------------|----------------------------------|
| 688 | Grey pine | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 689 | Deodar cedar | good | 4 | good | 4 | good | 4 | 12-16 |
| 690 | Deodar cedar | fair | 3 | good | 4 | good | 4 | 10 |
| 691 | Deodar cedar | fair | 3 | good | 4 | good | 4 | 6-10 |
| 692 | Deodar cedar | fair | 3 | fair | 3 | good | 4 | 10 |
| 693 | Italian cypress | poor | 2 | poor | 2 | poor | 2 | 10-12 |
| 694 | Western red cedar | very poor | 1 | poor | 2 | poor | 2 | 10-12 |
| 695 | Deodar cedar | poor | 2 | poor | 2 | poor | 2 | 10-12 |
| 696 | Western red cedar | very poor | 1 | poor | 2 | poor | 2 | 12 |
| 697 | Valley oak | fair | 3 | fair | 3 | fair | 3 | 12-16 |
| 698 | Grey pine | poor | 2 | poor | 2 | fair | 3 | 18-20 |
| 699 | Deodar cedar | fair | 3 | fair | 3 | fair | 3 | 10-12 |
| 700 | Deodar cedar | fair | 3 | fair | 3 | fair | 3 | 12-16 |

APPENDIX C - GLOSSARY

dripline - region underneath tree canopy

form - genetically determined appearance that includes spread, height & configuration

health - tree growth as expressed by foliage, twigs, branches & trunks including resistance to pests

root crown – region where trunk and root system meet, also called ‘buttress’ or ‘butt’

rooting zone – area where roots are likely to survive, beginning at the trunk and extending up to three times the radius of a tree’s dripline region

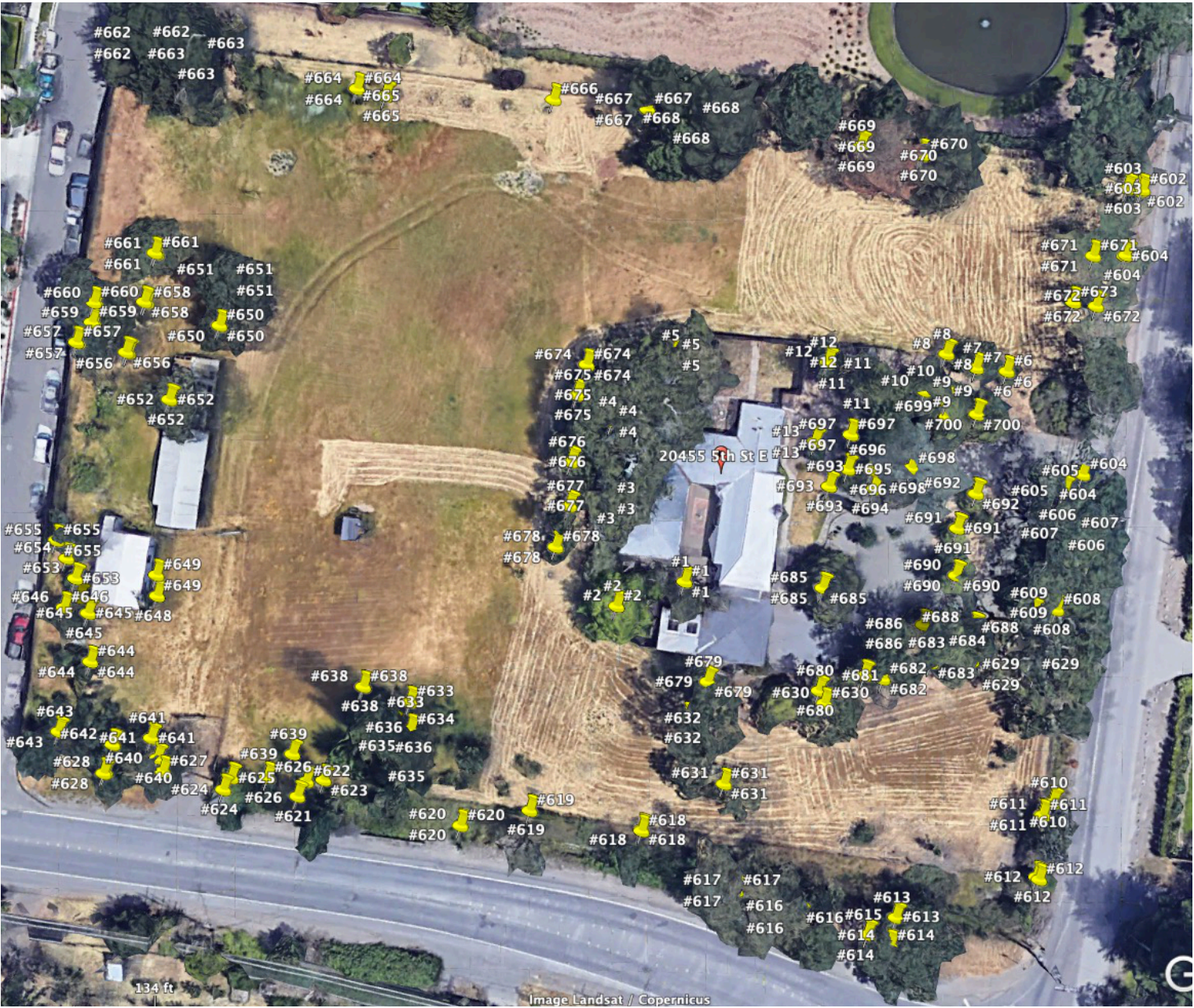
scaffold – large, structural branch

structure - physical and mechanical qualities of tree

trunk circumference – measurement of trunk, distance around

trunk diameter - trunk circumference divided by 3.14

APPENDIX D - TREE LOCATION MAP ALSO AVAILABLE AS KMZ & PDF FILES



APPENDIX E - CERTIFICATE OF PERFORMANCE

I, Michael Baefsky certify:

- That I have reviewed the The City of Sonoma Municipal Code, Chapter 12.08 Tree Ordinance
- That I have evaluated the subject trees, and stated my findings accurately. The extent of the evaluation is stated in the attached report;
- 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 certify that I am Registered Consulting Arborist #456, a member of the American Society of Consulting Arborists, and am Certified Arborist & Qualified Risk Assessor #WE0222A, Agricultural Pest Control Advisor #074617, Qualified Applicator #99864, Licensed Landscape Contractor (inactive) #931410, 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