



Report Revised: July 6, 2021

Coby Friedman,
CF Contracting, Inc.,
96 Forrest Ave,
Fairfax, CA 94930

Re: Updated Arborist Report for vacant lots 59 and 60 (APN #012-141-59 and APN# 012-141-60), and Ross Street Terrace, San Rafael, Marin County, CA

Dear Mr. Friedman:

This letter summarizes the methods and results of an arborist survey performed on March 3, 2020 and an updated survey of additional trees and confirmation of potential tree removal impacts conducted on June 30, 2021 at the site of a proposed residential construction project for two new single-family homes on two vacant parcels (Lot 59 and Lot 60; APNs #012-141-59 and 102-141-60) located in the City of San Rafael, Marin County, California (Project Area). The survey was conducted by ISA-Certified Arborist, Scott Yarger (ISA #WE-9300A) for the purpose of inventorying the number of trees proposed for removal within Lots 59 and 60, and along the proposed new Ross Street Terrace Roadway. This letter report updates the previous arborist report dated April 6, 2020 (WRA 2020), and addresses additional information requested by the City of San Rafael related to assessment of tree removal impacts and updated tree protection plan measures. This updated report was prepared in direct response to the City of San Rafael's Comments for Applicant Letter dated June 9, 2021.

The Project proposes to construct two single-family residences on two vacant hillside parcels (Lot 59 and Lot 60), implement a Lot Line Adjustment, and develop a new access road, Ross Street Terrace, with associated retaining walls. The proposed publicly accessible road, Ross Street Terrace, would be accessible from Ross Street, to the south, and would consist of approximately 500 lf of retention wall on both sides of the new road. The Project will remove approximately 49 trees, including 26 city trees, 17 significant trees, native and 6 non-protected trees. Tree removal impacts are shown in Attachment A, and B.

Regulatory Background

City of San Rafael Municipal Code: Chapter 11.12, "Trees" of the San Rafael Municipal Code regulates the planting, cutting, pruning, or removal of trees on City-owned properties and/or in the City right-of-way per; administered by the Department of Public Works. Chapter 14.12, "Hillside Overlay District", and Chapter 14.25, Environmental and Design Review and Permits require tree replacement for the removal of "significant trees" associated with development projects on hillside properties:

- Pursuant to Chapter 11.12 of the Municipal Code, the City of San Rafael regulates the planting, cutting, pruning, breaking, injuring, removing, or spraying of trees along any public street, sidewalk or walkway in the city.
- A permit from the Department of Public Works is required for any of the aforementioned impacts to trees in the city right-of-way.
- Pursuant to Chapter 14.12, and 14.24 of the Municipal Code outline development standards within the Hillside Overlay District. Tree replacement is typically required for removal of “significant trees” defined as “oaks (*Quercus* spp.) that measure six-inches in diameter or greater, and other trees that measure 12 inches in diameter or greater at four and one-half feet above the root crown (diameter at breast height [DBH]).”
- Three replacement trees are typically required per each significant tree to be removed. This requirement is administered by the City of San Rafael, Planning Division, Community Development Department.

Methods

On March 3, 2020, and June 30, 2021, ISA-Certified Arboris, Scott Yarger, traversed the Project Area and vicinity on foot to evaluate, identify and inventory all trees 6 inches or greater in Diameter at Breast Height (DBH) within the Project Area. Locations of surveyed trees were recorded using a handheld GPS unit with sub-meter accuracy. Each tree was given an aluminum tree tag with unique identification number. Information including species, DBH, dripline radius, approximate height, health, structure, and overall condition ratings were recorded.

General notes on the condition of the protected trees were taken, including health, structure, and overall condition. Assessment of the health, structure, and overall condition of each tree was conducted according to the narratives listed in Table 1.

Table 1. Rating narratives for tree assessment

Health	
Good	Tree is free from symptoms of disease and stress
Fair	Tree shows some symptoms of disease or stress including twig and small branch dieback, evidence of fungal / parasitic infection, thinning of crown, or poor leaf color
Poor	Tree shows symptoms of severe decline
Structure	
Good	Tree is free from major structural defects.
Fair	Tree shows some structural defects in branches but overall structure is stable.
Poor	Tree shows structural failure of a major branch or co-dominant trunk, or structural insecurity such as major heart rot or cavities which could affect the tree's overall stability.
General Condition	
Good	Tree shows condition of foliage, bark, and overall structure characteristic of the species and lacking obvious defect, or disease
Fair	Tree shows condition of foliage, bark, and overall structure characteristic of the species with some evidence of stress, defect, or disease
Poor	Tree shows condition of foliage, bark, and overall structure uncharacteristic of the species and/or with obvious evidence of stress, defect, decline or disease.

Potential impacts to significant trees and City trees were analyzed by overlaying tree survey data in CAD on the Project's Architectural Site Plans (Joseph Farrell Architecture 2020) which depicted all tree removals within the Lots and within the adjacent portions of the proposed Ross Street Terrace. Tree removal impacts were confirmed with the Project's architect. The results of the impacts assessment is provided below and shown in Appendix A.

Results

A total of 66 trees were identified within the Project Area, including 18 significant trees, 38 potential City trees located in the Ross Street Terrace right-of-way, and nine (9) non-protected trees located in the private parcels but not large enough to be considered significant trees per the Municipal Code. A complete list of all trees surveyed is presented in Attachment A. A map showing the location of each tree in relation to Project activities is provided in Attachment B. Representative photographs are provided in Attachment C.

Significant trees within the Project Area were composed of two native species, coast live oak (*Quercus agrifolia*), and California buckeye (*Aesculus californica*), and five non-native species. Four of the five non-native species, are considered invasive weeds by the California Invasive Plant Council (Cal-IPC), including silver wattle (*Acacia dealbata*), cherry plum (*Prunus cerasifera*), glossy privet (*Ligustrum lucidum*), and blackwood acacia (*Acacia melanoxylon*). Potential City trees located in the Ross Street Terrace right-of-way included many of the same species,

California bay (*Umbellularia californica*), and several additional non-native species including olive (*Olea europaea*), Monterey pine (*Pinus radiata*), and red gum (*Eucalyptus camaldulensis*).

The overall condition, health, and structure of trees inventoried during this assessment ranged from poor to good, with most trees ranking fair in all categories. Trees ranking poor in condition, health or structure, included most of the non-native, invasive silver wattle trees, olives, and cherry plum (*Prunus cerasifera*) which exhibited poor, multi-trunked, and/or leaning growth forms, typical of these weedy species. Trees that ranked “good” in overall condition included many of the native coast live oak trees, and one very large, dominant red gum (tree #736).

Common maladies observed affecting trees in the Project Area, included codominant trunks with included bark, poor, leaning growth forms, minor to significant internal decay and dieback, minor to significant limb failure, twig and leaf galls, and ivy infestation. The observed maladies and considerations of severity, along with species characteristics guided the assignment of the structural condition, health, and overall condition score for each tree. The overall condition, structural condition, health of inventoried trees was found to be generally fair. Table 2 below summarizes the assessment results of all inventoried trees in the Project Area.

Table 2. Tree Assessment Results Summary

Criteria Assessed/Rating	Condition	Health	Structure
Good	8 (12%)	17 (26%)	9 (14%)
Fair	45 (68%)	41 (62%)	36 (55%)
Poor	13 (20%)	8 (12%)	21 (32%)

The Project has been designed to retain certain native trees, including the largest coast live oak significant tree within the parcels, tree #771 a 47.9-inch DBH multi-trunked tree in the southwest corner of the parcels. The Project will potentially remove 17 significant trees, 27 potential City trees in the Ross Street Terrace right-of-way, and six (6) non- trees. Permits from the City of San Rafael will be required for the removal of significant and street trees. Tree replacement may be required for the removal of the 14 significant trees.

Summary and Recommendations

A total of 66 trees were identified within the Project Area, including 18 significant trees, 38 potential City trees located in the Ross Street Terrace right-of-way, and nine (9) non-protected trees located in the private parcels but not large enough to be considered significant trees per the Municipal Code.

The Project has been designed to retain certain native trees, including the largest coast live oak significant tree within the parcels, tree #771 a 47.9-inch DBH multi-trunked tree in the southwest corner of the parcels. The Project will remove approximately 49 trees, including 26 city trees, 17 significant trees, native and 6 non-protected trees. Conditions of approval may require tree replacement for significant trees.

A complete list of all trees surveyed is presented in Attachment A. A map showing the location of each tree in relation to Project activities is provided in Attachment B. Representative photographs are provided in Attachment C. A preliminary tree protection plan is provided below for trees which are proposed to remain including trees #740, 745, 746, 757-760, 771, 780-783, 789-791, and 801(no tag).

Recommended Tree Protection Measures

In order to avoid and minimize damage to existing trees which are not proposed for direct impact by project activities, the following tree protection measures are recommended during construction:

Tree Protection Zones

All construction activity (grading, filling, paving, landscaping etc.) shall respect the tree protection zone (TPZ) around all trees within the vicinity of the project area that are to be preserved. The TPZ should be a distance of 1.0 times the dripline radius measured from the trunk of the tree. Exception to this standard could be considered on a case-by-case basis, provided that it is demonstrated that an encroachment into the TPZ will not affect the root system or the health of the tree, and is authorized by an ISA-Certified Arborist or comparable specialist.

Tree Protection Fencing

Temporary protective fencing shall be installed around the TPZ of each designated for preservation prior to commencement of any construction activity conducted within 25' of the TPZ, of a tree designated for preservation. The fence shall be placed around the TPZ or the edge of the construction zone if the construction zone encroaches into the TPZ. The fence shall be clearly marked to prevent inadvertent encroachment by heavy machinery. Signage installed on the fencing should clearly indicate that no heavy equipment use, excavation, fill, grading, trenching, material storage, vehicle parking, disposal, drainage changes or other soil disturbance should occur within the TPZ.

Access within the fenced area shall be restricted, and fencing shall remain in place until all site work is completed. If temporary access is necessary within a fenced area, a six-inch layer of clean bark should be placed in all areas requiring access. If equipment access is required, it should shall be approved by a Certified Arborist, the mulch should be overlaid with metal plates to distribute compressive forces evenly and to minimize soil compaction.

If grading or construction activities are required within a TPZ, trunk protection planks consisting of 2x4 wood planks shall be installed around the trunk of the tree, underlain by foam sheeting, and fastened in place with straps.

Tree and Brush Removal/Site Clearing

A Certified Arborist and/or City representative should review any tree removal work within 25-feet of a TPZ. All trees requiring removal shall be felled away from preserved trees. Tree removals occurring within the TPZ of a tree selected for preservation (e.g. Tree #771) may require root pruning with approved root cutting equipment (e.g. Dosko or Vermeer Root Pruner) prior to felling, when roots are intertwined with preserved tree root structures.

All brush removal within the TPZ should be performed with hand equipment (e.g. weed-whacker or chainsaw). Brush and wood chips generated from tree removals may be used on-site, and placed within TPZs to a maximum depth of six inches. However, brush and wood chips generated from silver wattle, and Tree of Heaven removals should not be used on-site due to concerns with spreading these invasive species, and potential negative allelopathic effects.

Grading and Trenching within TPZs

Excavation, grading, or soil disturbance proposed within the TPZ of a tree selected for preservation must be approved by the City and a Certified Arborist. Where required and allowed, all grading cuts or trenching within the TPZ will be completed using hand- or light-excavation (i.e. pneumatic excavation) methods. Trenches may be dug manually using an air spade or approved root pruning equipment. If encountered, all roots over one (1) inch in diameter should be cleanly cut perpendicular to the axis using a sharp handsaw. Never rip or tear roots - clean cuts will encourage root regeneration. Roots exposed, as a result of construction activities shall be covered with wet burlap to avoid desiccation, and should be buried as soon as practicable.

Underground utilities should be routed outside of TPZs wherever possible. If utilities must cross the TPZ, they should be bored (tunneled) under the root(s) using an auger or drill, rather than trenched, to avoid root disturbance.

Drainage and Irrigation

Site drainage should be designed to create positive drainage away from the trunk of preserved trees, and to prevent ponding within the TPZ. Supplemental irrigation of 1 to 2 inches monthly, may be necessary within the TPZ of preserved trees during construction within the dry season.

Monitoring and Tree Damage Mitigation

Periodic tree health monitoring before, during and after construction is a useful method of documenting tree response to construction. Monitoring before construction begins ensures that baseline tree health conditions are recorded. Recent monitoring of the trees selected for preservation indicated that the preserved trees are in fair to good condition. Weekly or bi-weekly monitoring during construction will ensure that tree protection guidelines are followed by construction crews. Seasonal or annual post-construction monitoring will document any changes in tree health and inform decisions for remedial actions, if necessary. Monitoring should be carried out by an ISA-Certified Arborist with experience in tree health assessment and remediation.

Any trees damaged during construction shall be evaluated by the Certified Arborist and/or City designated representative. Mitigation may be required for damage to preserved trees, in compliance with the Tree Ordinance.

Please feel free to contact me if you have any questions or concerns.

Sincerely yours,



Scott Yarger
ISA-Certified Arborist WE-9300A
yarger@wra-ca.com

Enclosures:

Attachment A – Tree Survey Table

Attachment B – Project Figures
Attachment C – Representative Photographs

References

- City of San Rafael. 2019. Municipal Code: Chapter 11.12, "Trees", and Chapter 14.25, "Environmental and Design Review and Permits." Available online at: https://library.municode.com/ca/san_rafael/codes/code_of_ordinances. Accessed: March 2020.
- Joseph Farrell Architecture. 2020. Proposed Overall Landscape Plan for Friedman Residence, Ross Terrace, San Rafael, CA (APN 012-141-59 and -60). SKR Design. 2016. Existing Site Trees, and Proposed Existing Site Tree Removal for 33 & 41 Clayton Street, San Rafael, CA. July 12.

Attachment A –
Tree Survey Table

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Appendix A. CF Contracting Lots 59 and 60 Ross Street Terrace San Rafael, CA, Tree Survey Table, March 2020 and June 2021.

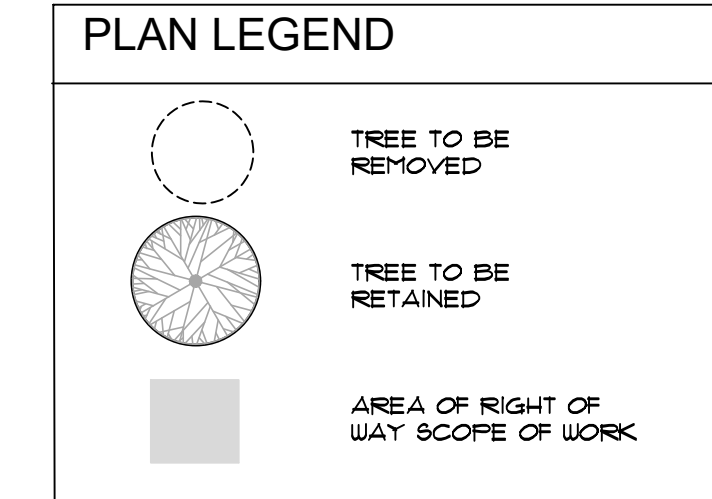
FID	Tag ID	Species	Common Name	Multi-trunk	Diameter	Diameter	Diameter	Diameter	Diameter	Total Diameter (inches)	Potential Impact	Municipal Code Status	Approximate Dripline Radius (feet)	Approximate Height (feet)	Condition	Health	Structure
0	735	<i>Acacia dealbata</i>	Silver wattle	Yes	6.5	7.6	6.5	9.3	6.3	36.2	Remove	City Tree	30	20	Fair	Fair	Poor
1	736	<i>Eucalyptus camaldulensis</i>	Red gum	No	54.7	0.0	0.0	0.0	0.0	54.7	Remove	City Tree	35	70	Good	Good	Good
2	737	<i>Acacia dealbata</i>	Silver wattle	Yes	10.2	6.1	0.0	0.0	0.0	16.3	Remove	City Tree	18	18	Fair	Fair	Poor
3	738	<i>Eucalyptus camaldulensis</i>	Red gum	Yes	11.2	6.3	5.8	4.6	0.0	27.9	Remove	City Tree	14	35	Fair	Fair	Fair
4	739	<i>Umbellularia californica</i>	California bay	Yes	4.3	3.8	0.0	0.0	0.0	8.1	Remove	City Tree	10	16	Fair	Good	Fair
5	740	<i>Eucalyptus camaldulensis</i>	Red gum	Yes	11.4	12.0	0.0	0.0	0.0	23.4	Remain	Non-protected	18	45	Fair	Good	Fair
6	741	<i>Acacia dealbata</i>	Silver wattle	No	8.1	0.0	0.0	0.0	0.0	8.1	Remain	City Tree	15	10	Poor	Fair	Poor
7	742	<i>Quercus agrifolia</i>	Coast live oak	No	10.0	0.0	0.0	0.0	0.0	10.0	Remove	City Tree	8	28	Fair	Fair	Fair
8	743	<i>Acacia dealbata</i>	Silver wattle	No	11.0	0.0	0.0	0.0	0.0	11.0	Remove	City Tree	12	35	Fair	Fair	Fair
9	744	<i>Acacia melanoxylon</i>	Blackwood acacia	Yes	8.0	7.5	8.5	3.5	0.0	27.5	Remove	City Tree	12	30	Fair	Fair	Fair
10	745	<i>Olea europaea</i>	Olive	Yes	8.7	8.7	9.0	7.8	0.0	34.2	Remain	City Tree	11	25	Fair	Fair	Poor
11	746	<i>Quercus agrifolia</i>	Coast live oak	No	6.8	0.0	0.0	0.0	0.0	6.8	Remain	City Tree	8	22	Fair	Good	Fair
12	747	<i>Acacia dealbata</i>	Silver wattle	No	7.0	0.0	0.0	0.0	0.0	7.0	Remove	City Tree	15	10	Fair	Poor	Fair
13	748	<i>Quercus agrifolia</i>	Coast live oak	No	26.9	0.0	0.0	0.0	0.0	26.9	Remove	City Tree	20	35	Good	Good	Good
14	749	<i>Olea europaea</i>	Olive	Yes	6.4	5.2	0.0	0.0	0.0	11.6	Remove	City Tree	8	13	Fair	Fair	Fair
15	750	<i>Acacia dealbata</i>	Silver wattle	No	14.5	0.0	0.0	0.0	0.0	14.5	Remove	City Tree	20	30	Poor	Fair	Poor
16	751	<i>Acacia dealbata</i>	Silver wattle	No	10.3	0.0	0.0	0.0	0.0	10.3	Remove	City Tree	10	18	Fair	Fair	Fair
17	752	<i>Acacia dealbata</i>	Silver wattle	No	11.4	0.0	0.0	0.0	0.0	11.4	Remove	City Tree	15	25	Fair	Fair	Poor
18	753	<i>Acacia dealbata</i>	Silver wattle	Yes	8.5	6.9	6.9	0.0	0.0	22.3	Remove	City Tree	18	20	Fair	Poor	Poor
19	754	<i>Quercus agrifolia</i>	Coast live oak	No	6.1	0.0	0.0	0.0	0.0	6.1	Remove	City Tree	10	13	Fair	Good	Fair
20	755	<i>Quercus agrifolia</i>	Coast live oak	No	6.3	0.0	0.0	0.0	0.0	6.3	Remove	City Tree	6	22	Fair	Good	Fair
21	756	<i>Ligustrum lucidum</i>	Glossy privet	No	6.0	0.0	0.0	0.0	0.0	6.0	Remove	City Tree	10	18	Fair	Fair	Fair
22	757	Unknown fruit tree	Unknown fruit tree	No	9.3	0.0	0.0	0.0	0.0	9.3	Remain	City Tree	15	24	Fair	Fair	Fair
23	758	<i>Pinus radiata</i>	Monterey pine	No	26.1	0.0	0.0	0.0	0.0	26.1	Remain	City Tree	20	38	Fair	Fair	Good
24	759	<i>Quercus agrifolia</i>	Coast live oak	No	7.8	0.0	0.0	0.0	0.0	7.8	Remain	City Tree	12	16	Good	Good	Fair
25	760	<i>Hesperocyparis macrocarpa</i>	Monterey cypress	No	28.0	0.0	0.0	0.0	0.0	28.0	Remain	Significant Tree	18	60	Fair	Fair	Fair
26	761	<i>Olea europaea</i>	Olive	Yes	9.0	6.5	4.0	3.0	3.0	25.5	Remove	City Tree	12	20	Fair	Fair	Poor
27	762	<i>Quercus agrifolia</i>	Coast live oak	Yes	15.3	15.3	0.0	0.0	0.0	30.6	Remove	City Tree	20	40	Good	Good	Good
28	763	<i>Aesculus californica</i>	California buckeye	Yes	12.1	12.1	0.0	0.0	0.0	24.2	Remove	Significant Tree	30	18	Poor	Poor	Poor
29	764	<i>Prunus cerasifera</i>	Cherry plum	Yes	8.5	6.4	0.0	0.0	0.0	14.9	Remove	Significant Tree	14	16	Fair	Fair	Fair
30	765	<i>Acacia melanoxylon</i>	Blackwood acacia	Yes	7.4	5.5	4.6	4.6	0.0	22.1	Remove	Significant Tree	14	28	Fair	Fair	Poor
31	766	<i>Ligustrum lucidum</i>	Glossy privet	Yes	7.9	5.4	6.9	0.0	0.0	20.2	Remove	Significant Tree	10	18	Fair	Fair	Fair
32	767	<i>Acacia dealbata</i>	Silver wattle	No	8.0	0.0	0.0	0.0	0.0	8.0	Remove	Non-protected	12	35	Fair	Good	Fair
33	768	<i>Grevillea robusta</i>	Silk oak	No	18.2	0.0	0.0	0.0	0.0	18.2	Remove	Significant Tree	13	40	Fair	Fair	Good
34	769	<i>Quercus agrifolia</i>	Coast live oak	No	12.5	0.0	0.0	0.0	0.0	12.5	Remove	Significant Tree	25	30	Fair	Good	Fair
35	770	<i>Ligustrum lucidum</i>	Glossy privet	Yes	4.1	4.9	4.1	0.0	0.0	13.1	Remove	Significant Tree	8	15	Fair	Fair	Poor
36	771	<i>Quercus agrifolia</i>	Coast live oak	Yes	18.9	17.6	11.4	0.0	0.0	47.9	Remain	Significant Tree	25	28	Fair	Fair	Fair
37	772	<i>Quercus agrifolia</i>	Coast live oak	No	13.6	0.0	0.0	0.0	0.0	13.6	Remove	Significant Tree	12	22	Fair	Fair	Fair
38	773	<i>Quercus agrifolia</i>	Coast live oak	No	10.5	0.0	0.0	0.0	0.0	10.5	Remove	Significant Tree	12	18	Good	Good	Good
39	774	<i>Quercus agrifolia</i>	Coast live oak	Yes	9.7	8.9	0.0	0.0	0.0	18.6	Remove	Significant Tree	15	18	Fair	Good	Fair
40	775	<i>Acacia dealbata</i>	Silver wattle	No	10.2	0.0	0.0	0.0	0.0	10.2	Remove	Non-protected	30	8	Poor	Fair	Poor
41	776	<i>Acacia dealbata</i>	Silver wattle	No	9.5	0.0	0.0	0.0	0.0	9.5	Remove	Non-protected	10	35	Fair	Fair	Fair
42	777	<i>Acacia dealbata</i>	Silver wattle	Yes	5.2	5.6	0.0	0.0	0.0	10.8	Remove	Non-protected	30	20	Poor	Fair	Poor
43	778	<i>Acacia dealbata</i>	Silver wattle	Yes	4.3	3.1	5.6	2.6	0.0	15.6	Remove	Significant Tree	25	25	Fair	Fair	Fair
44	779	<i>Acacia dealbata</i>	Silver wattle	Yes	9.4	7.1	7.0	7.0	0.0	30.5	Remove	Significant Tree	30	40	Poor	Fair	Poor
45	780	<i>Acacia dealbata</i>	Silver wattle	Yes	9.0	7.5	0.0	0.0	0.0	16.5	Remain	City Tree	25	28	Fair	Fair	Poor
46	781	<i>Acacia dealbata</i>	Silver wattle	No	6.2	0.0	0.0	0.0	0.0	6.2	Remain	City Tree	25	18	Poor	Poor	Poor
47	782	<i>Acacia dealbata</i>	Silver wattle	No	11.5	0.0	0.0	0.0	0.0	11.5	Remain	City Tree	30	20	Poor	Poor	Poor
48	783	<i>Acacia dealbata</i>	Silver wattle	No	9.5	0.0	0.0	0.0	0.0	9.5	Remain	Non-protected	15	40	Good	Good	Good

Appendix A. CF Contracting Lots 59 and 60 Ross Street Terrace San Rafael, CA, Tree Survey Table, March 2020 and June 2021.


FID	Tag ID	Species	Common Name	Multi-trunk	Diameter	Diameter	Diameter	Diameter	Diameter	Total Diameter (inches)	Potential Impact	Municipal Code Status	Approximate Dripline Radius (feet)	Approximate Height (feet)	Condition	Health	Structure
49	784	<i>Acacia dealbata</i>	Silver wattle	Yes	8.4	6.5	0.0	0.0	0.0	14.9	Remove	Significant Tree	20	35	Fair	Fair	Fair
50	786	<i>Quercus agrifolia</i>	Coast live oak	No	12.5	0.0	0.0	0.0	0.0	12.5	Remove	City Tree	15	28	Fair	Good	Fair
51	787	<i>Umbellularia californica</i>	California bay	Yes	4.0	3.5	3.5	3.5	0.0	14.5	Remove	City Tree	12	15	Fair	Fair	Poor
52	788	<i>Quercus agrifolia</i>	Coast live oak	No	18.0	0.0	0.0	0.0	0.0	18.0	Remove	City Tree	20	28	Good	Good	Good
53	789	<i>Umbellularia californica</i>	California bay	Yes	14.0	7.0	0.0	0.0	0.0	21.0	Remain	City Tree	20	30	Fair	Fair	Fair
54	790	<i>Prunus cerasifera</i>	Cherry plum	Yes	4.0	4.0	0.0	0.0	0.0	8.0	Remain	City Tree	10	12	Poor	Poor	Poor
55	791	<i>Umbellularia californica</i>	California bay	Yes	7.0	3.5	0.0	0.0	0.0	10.5	Remain	City Tree	9	15	Fair	Fair	Fair
56	792	<i>Prunus cerasifera</i>	Cherry plum	Yes	5.5	3.5	5.0	4.0	0.0	18.0	Remove	City Tree	10	15	Poor	Poor	Poor
57	793	<i>Umbellularia californica</i>	California bay	Yes	13.7	8.5	0.0	0.0	0.0	22.2	Remove	City Tree	18	30	Fair	Fair	Fair
	794notag	<i>Acacia melanoxylon</i>	Blackwood acacia	No	10.0	0.0	0.0	0.0	0.0	10.0	Remove	Non-protected	10	18	Poor	Poor	Poor
	795notag	<i>Quercus agrifolia</i>	Coast live oak	No	6.5	0.0	0.0	0.0	0.0	6.5	Remove	Significant tree	8	14	Poor	Fair	Fair
	796notag	<i>Quercus agrifolia</i>	Coast live oak	No	13.5	0.0	0.0	0.0	0.0	13.5	Remove	Significant tree	12	20	Fair	Fair	Fair
	797notag	<i>Olea europeaea</i>	Olive	Yes	6.5	3.0	0.0	0.0	0.0	9.5	Remove	Non-protected	8	15	Fair	Fair	Fair
	798notag	<i>Quercus agrifolia</i>	Coast live oak	No	16.5	0.0	0.0	0.0	0.0	16.5	Remove	Significant tree	25	35	Fair	Fair	Fair
	799notag	<i>Schinus molle</i>	Peruvian pepper	No	13.0	0.0	0.0	0.0	0.0	13.0	Remove	City tree	10	18	Poor	Fair	Fair
	800notag	<i>Quercus agrifolia</i>	Coast live oak	No	14.0	0.0	0.0	0.0	0.0	14.0	Remove	Significant tree	12	20	Fair	Fair	Fair
	801notag	<i>Pinus radiata</i>	Monterey pine	No	60.0	0.0	0.0	0.0	0.0	60.0	Remain	Non-protected	25	40	Good	Good	Good

Attachment B-
Project Figures

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Preliminary Not for Construction

[illegible]

Joseph Farrell
ARCHITECTURE

1 Commercial Blvd., Suite 106
Novato, CA 94949
Voice (415) 884-2860

New Residence
Friedman Residence
Lots 59 and 60 - Ross Terrace
San Rafael, CA APN 012-141-59 and 60

Tree Removal Plan

REVIEW THE DRAWINGS CAREFULLY.
DO NOT SCALE THE DRAWINGS. ANY DISCREP-
ANCIES IN DIMENSIONS AND DETAILS SHALL BE
BROUGHT TO THE IMMEDIATE ATTENTION OF
JOSEPH P. FARRELL, ARCHITECT

DATE:	07-06-2021
SCALE:	1"=20'
DRAWN:	STC
JOB NO.	1909
SHEET NO:	

A-5.3

Ross Terrace
San Rafael, CA

Tag ID	Species	Common Name	Multi-trunk	Diameter	Diameter	Diameter	Diameter	Diameter	Total Diameter (inches)	Potential Impact
735	<i>Acacia dealbata</i>	Silver wattle	Yes	6.5	7.6	6.5	9.3	6.3	36.2	Remove
736	<i>Eucalyptus camaldulensis</i>	Red gum	No	54.7	0.0	0.0	0.0	0.0	54.7	Remove
737	<i>Acacia dealbata</i>	Silver wattle	Yes	10.2	6.1	0.0	0.0	0.0	16.3	Remove
738	<i>Eucalyptus camaldulensis</i>	Red gum	Yes	11.2	6.3	5.8	4.6	0.0	27.9	Remove
739	<i>Umbellularia californica</i>	California bay	Yes	4.3	3.8	0.0	0.0	0.0	8.1	Remove
740	<i>Eucalyptus camaldulensis</i>	Red gum	Yes	11.4	12.0	0.0	0.0	0.0	23.4	Remain
741	<i>Acacia dealbata</i>	Silver wattle	No	8.1	0.0	0.0	0.0	0.0	8.1	Remain
742	<i>Quercus agrifolia</i>	Coast live oak	No	10.0	0.0	0.0	0.0	0.0	10.0	Remove
743	<i>Acacia dealbata</i>	Silver wattle	No	11.0	0.0	0.0	0.0	0.0	11.0	Remove
744	<i>Acacia melanoxylon</i>	Blackwood acacia	Yes	8.0	7.5	8.5	3.5	0.0	27.5	Remove
745	<i>Olea europaea</i>	Olive	Yes	8.7	8.7	9.0	7.8	0.0	34.2	Remain
746	<i>Quercus agrifolia</i>	Coast live oak	No	6.8	0.0	0.0	0.0	0.0	6.8	Remain
747	<i>Acacia dealbata</i>	Silver wattle	No	7.0	0.0	0.0	0.0	0.0	7.0	Remove
748	<i>Quercus agrifolia</i>	Coast live oak	No	26.9	0.0	0.0	0.0	0.0	26.9	Remove
749	<i>Olea europaea</i>	Olive	Yes	6.4	5.2	0.0	0.0	0.0	11.6	Remove
750	<i>Acacia dealbata</i>	Silver wattle	No	14.5	0.0	0.0	0.0	0.0	14.5	Remove
751	<i>Acacia dealbata</i>	Silver wattle	No	10.3	0.0	0.0	0.0	0.0	10.3	Remove
752	<i>Acacia dealbata</i>	Silver wattle	No	11.4	0.0	0.0	0.0	0.0	11.4	Remove
753	<i>Acacia dealbata</i>	Silver wattle	Yes	8.5	6.9	6.9	0.0	0.0	22.3	Remove
754	<i>Quercus agrifolia</i>	Coast live oak	No	6.1	0.0	0.0	0.0	0.0	6.1	Remove
755	<i>Quercus agrifolia</i>	Coast live oak	No	6.3	0.0	0.0	0.0	0.0	6.3	Remove
756	<i>Ligustrum lucidum</i>	Glossy privet	No	6.0	0.0	0.0	0.0	0.0	6.0	Remove

Tag ID	Species	Common Name	Multi-trunk	Diameter	Diameter	Diameter	Diameter	Diameter	Total Diameter (inches)	Potential Impact
757	<i>Unknown fruit tree</i>	Unknown fruit tree	No	9.3	0.0	0.0	0.0	0.0	9.3	Remain
758	<i>Pinus radiata</i>	Monterey pine	No	26.1	0.0	0.0	0.0	0.0	26.1	Remain
759	<i>Quercus agrifolia</i>	Coast live oak	No	7.8	0.0	0.0	0.0	0.0	7.8	Remain
760	<i>Hesperocyparis macrocarpa</i>	Monterey cypress	No	28.0	0.0	0.0	0.0	0.0	28.0	Remain
761	<i>Olea europaea</i>	Olive	Yes	9.0	6.5	4.0	3.0	3.0	25.5	Remove
762	<i>Quercus agrifolia</i>	Coast live oak	Yes	15.3	15.3	0.0	0.0	0.0	30.6	Remove
763	<i>Aesculus californica</i>	California buckeye	Yes	12.1	12.1	0.0	0.0	0.0	24.2	Remove
764	<i>Prunus cerasifera</i>	Cherry plum	Yes	8.5	6.4	0.0	0.0	0.0	14.9	Remove
765	<i>Acacia melanoxylon</i>	Blackwood acacia	Yes	7.4	5.5	4.6	4.6	0.0	22.1	Remove
766	<i>Ligustrum lucidum</i>	Glossy privet	Yes	7.9	5.4	6.9	0.0	0.0	20.2	Remove
767	<i>Acacia dealbata</i>	Silver wattle	No	8.0	0.0	0.0	0.0	0.0	8.0	Remove
768	<i>Grevillea robusta</i>	Silk oak	No	18.2	0.0	0.0	0.0	0.0	18.2	Remove
769	<i>Quercus agrifolia</i>	Coast live oak	No	12.5	0.0	0.0	0.0	0.0	12.5	Remove
770	<i>Ligustrum lucidum</i>	Glossy privet	Yes	4.1	4.9	4.1	0.0	0.0	13.1	Remove
771	<i>Quercus agrifolia</i>	Coast live oak	Yes	18.9	17.6	11.4	0.0	0.0	47.9	Remain
772	<i>Quercus agrifolia</i>	Coast live oak	No	13.6	0.0	0.0	0.0	0.0	13.6	Remove
773	<i>Quercus agrifolia</i>	Coast live oak	No	10.5	0.0	0.0	0.0	0.0	10.5	Remove
774	<i>Quercus agrifolia</i>	Coast live oak	Yes	9.7	8.9	0.0	0.0	0.0	18.6	Remove
775	<i>Acacia dealbata</i>	Silver wattle	No	10.2	0.0	0.0	0.0	0.0	10.2	Remove
776	<i>Acacia dealbata</i>	Silver wattle	No	9.5	0.0	0.0	0.0	0.0	9.5	Remove
777	<i>Acacia dealbata</i>	Silver wattle	Yes	5.2	5.6	0.0	0.0	0.0	10.8	Remove

Tag ID	Species	Common Name	Multi-trunk	Diameter	Diameter	Diameter	Diameter	Diameter	Total Diameter (inches)	Potential Impact
778	<i>Acacia dealbata</i>	Silver wattle	Yes	4.3	3.1	5.6	2.6	0.0	15.6	Remove
779	<i>Acacia dealbata</i>	Silver wattle	Yes	9.4	7.1	7.0	7.0	0.0	30.5	Remove
780	<i>Acacia dealbata</i>	Silver wattle	Yes	9.0	7.5	0.0	0.0	0.0	16.5	Remain
781	<i>Acacia dealbata</i>	Silver wattle	No	6.2	0.0	0.0	0.0	0.0	6.2	Remain
782	<i>Acacia dealbata</i>	Silver wattle	No	11.5	0.0	0.0	0.0	0.0	11.5	Remain
783	<i>Acacia dealbata</i>	Silver wattle	No	9.5	0.0	0.0	0.0	0.0	9.5	Remain
784	<i>Acacia dealbata</i>	Silver wattle	Yes	8.4	6.5	0.0	0.0	0.0	14.9	Remove
786	<i>Quercus agrifolia</i>	Coast live oak	No	12.5	0.0	0.0	0.0	0.0	12.5	Remove
787	<i>Umbellularia californica</i>	California bay	Yes	4.0	3.5	3.5	3.5	0.0	14.5	Remove
788	<i>Quercus agrifolia</i>	Coast live oak	No	18.0	0.0	0.0	0.0	0.0	18.0	Remove
789	<i>Umbellularia californica</i>	California bay	Yes	14.0	7.0	0.0	0.0	0.0	21.0	Remain
790	<i>Prunus cerasifera</i>	Cherry plum	Yes	4.0	4.0	0.0	0.0	0.0	8.0	Remain
791	<i>Umbellularia californica</i>	California bay	Yes	7.0	3.5	0.0	0.0	0.0	10.5	Remain
792	<i>Prunus cerasifera</i>	Cherry plum	Yes	5.5	3.5	5.0	4.0	0.0	18.0	Remove
793	<i>Umbellularia californica</i>	California bay	Yes	13.7	8.5	0.0	0.0	0.0	22.2	Remove

Attachment C-
Site Photographs

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Photograph 1. Photograph depicting non-native, invasive silver wattle (*Acacia dealbata*), significant trees #778 and #779 to be removed within the parcels. These trees exhibit poor structure, with several leaning codominant trunks.



Photograph 2. Photograph depicting a native coast live oak (*Quercus agrifolia*), tree #748, a 26.9-inch City tree within the Ross Street Terrace right-of-way, which is proposed for removal.



Photograph 3. Photograph depicting tree #763, a 24.2-inch aggregate DBH multi-trunked California buckeye (*Aesculus californica*), a significant tree located in the parcels. This tree ranked poor in condition, health, and structure with major internal decay and dieback, and is proposed for removal.



Photograph 4. Photograph depicting tree #739, an 8.1-inch aggregate DBH California bay (*Umbellularia californica*) City tree in the Ross Street right-of-way, to be removed. A large, 54.9-inch red gum (*Eucalyptus camaldulensis*) City tree proposed for removal can be seen at left.