

Consultants in Horticulture and Arboriculture

TREE INVENTORY REPORT (Preliminary Study)

Fir Ridge Subdivision Santa Rosa, CA

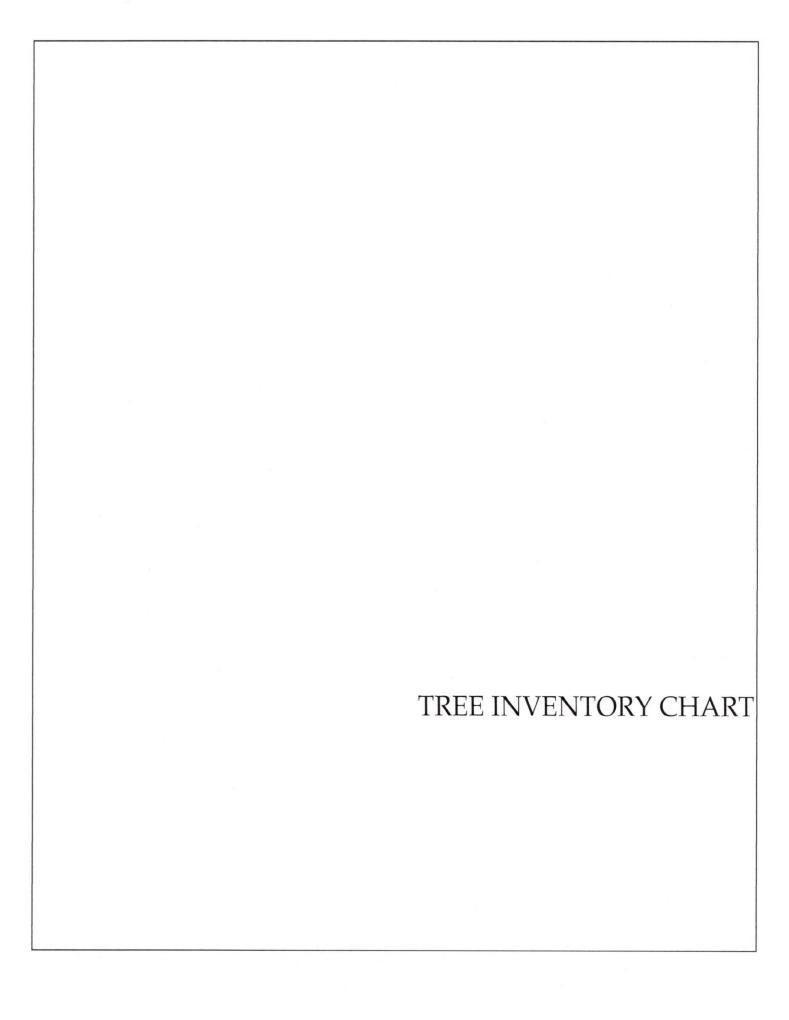
Prepared for:

Christopherson Builders, LLC 565 W. College Ave. Santa Rosa, CA 95405

Prepared by:

John C. Meserve ISA Certified Arborist, WE #0478A ISA Qualified Tree Risk Assessor/TRAQ ASCA Qualified Tree and Plant Appraiser/TPAQ

October 20, 2022



Tree #	Species	Common Name	Trunk (dbh± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1 - 4	Expected Impact	Recommendations	Comments
1	Quercus agrifolia	Coast Live Oak	20+30	40	25	4	3	Unknown	To be determined	
2	Sequois sempervirens	Coast Redwood	13	60	12	3	3	Unknown	To be determined	
3	Sequois sempervirens	Coast Redwood	12	60	12	4	3	Unknown	To be determined	
4	Sequois sempervirens	Coast Redwood	14	60	12	4	3	Unknown	To be determined	
5	Sequois sempervirens	Coast Redwood	33	60	15	4	3	Unknown	To be determined	
6	Sequois sempervirens	Coast Redwood	20	60	15	4	3	Unknown	To be determined	
7	Sequois sempervirens	Coast Redwood	20	60	15	4	2	Unknown	To be determined	
8	Sequois sempervirens	Coast Redwood	20	60	15	4	3	Unknown	To be determined	
9	Sequois sempervirens	Coast Redwood	21	60	15	4	3	Unknown	To be determined	
10	Sequois sempervirens	Coast Redwood	26	60	15	4	3	Unknown	To be determined	
11	Sequois sempervirens	Coast Redwood	32	60	15	4	3	Unknown	To be determined	
12	Sequois sempervirens	Coast Redwood	20	60	15	4	3	Unknown	To be determined	
13	Sequois sempervirens	Coast Redwood	26	60	15	4	3	Unknown	To be determined	
14	Sequois sempervirens	Coast Redwood	9	60	12	4	3	Unknown	To be determined	
15	Sequois sempervirens	Coast Redwood	8	60	12	4	3	Unknown	To be determined	
16	Sequois sempervirens	Coast Redwood	10	60	12	4	3	Unknown	To be determined	

Tree #	Species	Common Name	Trunk (dbh± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Comments
17	Sequois sempervirens	Coast Redwood	11	60	12	4	3	Unknown	To be determined	
18	Sequois sempervirens	Coast Redwood	8	60	12	4	3	Unknown	To be determined	
19	Sequois sempervirens	Coast Redwood	12	60	12	4	3	Unknown	To be determined	
20	Sequois sempervirens	Coast Redwood	7	60	12	4	3	Unknown	To be determined	
21	Sequois sempervirens	Coast Redwood	9+11	60	12	4	3	Unknown	To be determined	
22	Sequois sempervirens	Coast Redwood	13	60	12	4	3	Unknown	To be determined	
23	Sequois sempervirens	Coast Redwood	15	70	12	4	3	Unknown	To be determined	
24	Pseudotsuga douglasii	Douglas Fir	54	70	30	2	2	Unknown	To be determined	Significant fire damage
25	Quercus agrifolia	Coast Live Oak	30	25	10	0	0	Unknown	Remove	Significant fire damage
26	Quercus agrifolia	Coast Live Oak	27	45	25	2	2	Unknown	To be determined	Significant fire damage
27	Pseudotsuga douglasii	Douglas Fir	11	30	12	0	0	Unknown	Remove	Significant fire damage
28	Pseudotsuga douglasii	Douglas Fir	30	45	20	0	0	Unknown	Remove	Significant fire damage
29	Pseudotsuga douglasii	Douglas Fir	36	15	20	0	0	Unknown	Remove	Significant fire damage
30	Quercus agrifolia	Coast Live Oak	12+16+ 18	50	20	2	2	Unknown	To be determined	Significant fire damage
31	Quercus agrifolia	Coast Live Oak	12	40	15	4	3	Unknown	To be determined	
32	Quercus agrifolia	Coast Live Oak	14	40	16	3	3	Unknown	To be determined	

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Comments
33	Quercus agrifolia	Coast Live Oak	12	40	14	0	0	Unknown	Remove	Significant fire damage
34	Quercus agrifolia	Coast Live Oak	8	18	12	2	3	Unknown	To be determined	Significant fire damage
35	Quercus agrifolia	Coast Live Oak	13+16	40	20	3	3	Unknown	To be determined	
36	Quercus agrifolia	Coast Live Oak	12	30	12	0	0	Unknown	Remove	Significant fire damage
37	Quercus agrifolia	Coast Live Oak	15	30	12	2	2	Unknown	To be determined	Significant fire damage
38	Quercus agrifolia	Coast Live Oak	10+11	30	12	3	3	Unknown	To be determined	
39	Quercus agrifolia	Coast Live Oak	9	30	12	2	2	Unknown	To be determined	Significant fire damage
40	Quercus agrifolia	Coast Live Oak	9	30	12	2	2	Unknown	To be determined	Significant fire damage
41	Quercus agrifolia	Coast Live Oak	24+26+28	40	30	2	2	Unknown	To be determined	Significant fire damage
42	Quercus agrifolia	Coast Live Oak	13	40	20	3	3	Unknown	To be determined	
43	Quercus agrifolia	Coast Live Oak	7	21	10	4	3	Unknown	To be determined	
44	Quercus agrifolia	Coast Live Oak	6	15	10	2	2	Unknown	To be determined	Significant fire damage
45	Quercus kellogii	Black Oak	10+16	30	18	2	2	Unknown	To be determined	Significant fire damage
46	Quercus agrifolia	Coast Live Oak	+12+14+1	40	18	4	2	Unknown	To be determined	Significant fire damage
47	Umbellularia californica	Bay Laurel	50	50	25	2	2	Unknown	To be determined	Significant fire damage
48	Quercus agrifolia	Coast Live Oak	35	45	36	3	2	Unknown	To be determined	Significant fire damage

Tree #	Species	Common Name	Trunk (dbh± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Comments
49	Quercus agrifolia	Coast Live Oak	12	25	15	4	3	Unknown	To be determined	
50	Quercus agrifolia	Coast Live Oak	12+12+16	35	18	3	3	Unknown	To be determined	
51	Quercus agrifolia	Coast Live Oak	12+12+13	40	18	4	3	Unknown	To be determined	
52	Quercus agrifolia	Coast Live Oak	13	25	15	3	3	Unknown	To be determined	
53	Quercus agrifolia	Coast Live Oak	54	45	30	2	2	Unknown	To be determined	Significant fire damage
54	Quercus agrifolia	Coast Live Oak	11+25	40	21	2	2	Unknown	To be determined	Significant fire damage
55	Pseudotsuga douglasii	Douglas Fir	11	40	14	2	2	Unknown	To be determined	Significant fire damage
56	Quercus agrifolia	Coast Live Oak	12+12	35	15	4	3	Unknown	To be determined	
57	Quercus agrifolia	Coast Live Oak	+24+25+2	50	30	2	2	30	To be determined	Significant fire damage
58	Pseudotsuga douglasii	Douglas Fir	22	50	30	0	0	Unknown	Remove	Significant fire damage
59	Quercus agrifolia	Coast Live Oak	12+15	35	14	2	2	Unknown	To be determined	Significant fire damage
60	Quercus agrifolia	Coast Live Oak	24	12	25	2	2	Unknown	To be determined	Significant fire damage
61	Quercus agrifolia	Coast Live Oak	6+11+20	30	15	2	2	Unknown	To be determined	Significant fire damage
62	Quercus agrifolia	Coast Live Oak	24	40	16	2	2	Unknown	To be determined	Significant fire damage
63	Quercus agrifolia	Coast Live Oak	10	22	10	3	3	Unknown	To be determined	*
64	Quercus agrifolia	Coast Live Oak	10+11	35	15	3	3	Unknown	To be determined	

Tree #	Species	Common Name	Trunk (dbh± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1 - 4	Expected Impact	Recommendations	Comments
65	Quercus agrifolia	Coast Live Oak	12	40	14	4	3	Unknown	To be determined	
66	Quercus agrifolia	Coast Live Oak	20	35	21	2	2	Unknown	To be determined	Significant fire damage
67	Quercus agrifolia	Coast Live Oak	16	30	16	2	2	Unknown	To be determined	Significant fire damage
68	Quercus agrifolia	Coast Live Oak	7+8	25	12	2	2	Unknown	To be determined	Significant fire damage
69	Quercus agrifolia	Coast Live Oak	18	40	20	2	2	Unknown	To be determined	Significant fire damage
70	Quercus agrifolia	Coast Live Oak	25	40	22	2	2	Unknown	To be determined	Significant fire damage
71	Quercus agrifolia	Coast Live Oak	8+12+14	35	18	2	2	Unknown	To be determined	Significant fire damage
72	Quercus agrifolia	Coast Live Oak	6	14	8	2	2	Unknown	To be determined	Significant fire damage
73	Quercus agrifolia	Coast Live Oak	14	35	15	2	2	Unknown	To be determined	Significant fire damage
74	Quercus agrifolia	Coast Live Oak	6	14	10	2	2	Unknown	To be determined	Significant fire damage
75	Quercus kellogii	Black Oak	15	35	18	2	2	Unknown	To be determined	Significant fire damage
76	Umbellularia californica	Bay Laurel	48	45	20	2	2	Unknown	To be determined	Significant fire damage
77	Quercus agrifolia	Coast Live Oak	37	45	30	2	2	Unknown	To be determined	Significant fire damage
78	Quercus agrifolia	Coast Live Oak	0+24+24-	45	40	2	2	Unknown	To be determined	Significant fire damage
79	Quercus kellogii	Black Oak	22	45	30	4	3	Unknown	To be determined	
80	Quercus kellogii	Black Oak	15	45	27	4	3	Unknown	To be determined	

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1 - 4	Expected Impact	Recommendations	Comments
81	Quercus agrifolia	Coast Live Oak	45	45	32	3	3	Unknown	To be determined	Significant fire damage
82	Quercus kellogii	Black Oak	25	45	30	3	3	Unknown	To be determined	
83	Quercus kellogii	Black Oak	16	40	18	2	2	Unknown	To be determined	Significant fire damage
84	Quercus agrifolia	Coast Live Oak	24	40	25	2	2	Unknown	To be determined	Significant fire damage
85	Quercus agrifolia	Coast Live Oak	17	40	18	4	3	Unknown	To be determined	
86	Quercus kellogii	Black Oak	20	40	21	2	2	Unknown	To be determined	Significant fire damage
87	Quercus kellogii	Black Oak	17	40	18	4	2	Unknown	To be determined	Significant fire damage
88	Quercus agrifolia	Coast Live Oak	45	45	30	4	2	Unknown	To be determined	Significant fire damage
89	Quercus agrifolia	Coast Live Oak	36	45	32	4	2	Unknown	To be determined	Significant fire damage
90	Quercus agrifolia	Coast Live Oak	23	40	22	3	2	Unknown	To be determined	Significant fire damage
91	Pseudotsuga douglasii	Douglas Fi r	7	40	10	2	2	Unknown	To be determined	Significant fire damage
92	Pseudotsuga douglasii	Douglas Fi r	13	50	12	3	3	Unknown	To be determined	Significant fire damage
93	Pseudotsuga douglasii	Douglas Fi r	8	50	12	3	3	Unknown	To be determined	Significant fire damage
94	Quercus agrifolia	Coast Live Oak	14	40	18	4	3	Unknown	To be determined	
95	Quercus agrifolia	Coast Live Oak	12	35	20	2	2	Unknown	To be determined	Significant fire damage
96	Aesculus californica	Buckeye	12	12	10	0	0	Unknown	Remove	Significant fire damage

Tree #	Species	Common Name	Trunk (dbh± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Comments
97	Quercus agrifolia	Coast Live Oak	25+28	45	25	3	3	Unknown	To be determined	
98	Quercus lobata	Valley Oak	20+20	45	30	2	2	Unknown	To be determined	Significant fire damage
99	Quercus kellogii	Black Oak	32	45	30	2	2	Unknown	To be determined	Significant fire damage
100	Quercus lobata	Valley Oak	20	22	16	4	3	Unknown	To be determined	
101	Quercus kellogii	Black Oak	10+13	40	16	2	2	Unknown	To be determined	Significant fire damage
102	Quercus kellogii	Black Oak	15	25	15	2	3	Unknown	To be determined	Significant fire damage
103	Quercus agrifolia	Coast Live Oak	10+14	35	15	4	3	Unknown	To be determined	
104	Pseudotsuga menziesii	Douglas Fir	14	50	15	3	3	Unknown	To be determined	
105	Quercus kellogii	Black Oak	15	40	18	3	3	Unknown	To be determined	
106	Quercus agrifolia	Coast Live Oak	35	45	30	2	2	Unknown	To be determined	Significant fire damage
107	Quercus kellogii	Black Oak	13+13	35	16	2	2	Unknown	To be determined	Significant fire damage
108	Quercus agrifolia	Coast Live Oak	12	30	14	3	3	Unknown	To be determined	
109	Quercus kellogii Black Oak	Coast Live Oak	13	35	15	3	3	Unknown	To be determined	
110	Quercus agrifolia	Coast Live Oak	12+16	40	20	2	2	Unknown	To be determined	Significant fire damage
111	Quercus agrifolia	Coast Live Oak	20	35	16	3	3	Unknown	To be determined	
112	Quercus agrifolia	Coast Live Oak	6+6	20	12	3	3	Unknown	To be determined	

Tree #	Species	Common Name	Trunk (dbh± inches)	Height (± feet)	Radius (± feet)	Health 1-5	Structure 1-4	Expected Impact	Recommendations	Comments
113	Quercus agrifolia	Coast Live Cak	24	40	18	2	2	Unknown	To be determined	Significant fire damage
114	Pseudotsuga douglasii	Douglas Fir	18	60	16	2	2	Unknown	To be determined	Significant fire damage
115	Quercus kellogii	Black Oak	12	25	20	2	2	Unknown	To be determined	Significant fire damage
116	Quercus kellogii	Black Oak	14	30	18	2	2	Unknown	To be determined	Significant fire damage
117	Quercus lobata	Valley Oak	21	40	18	3	3	Unknown	To be determined	
118	Pseudotsuga douglasii	Douglas Fir	10	45	14	3	3	Unknown	To be determined	Significant fire damage
119	Quercus kellogii		25	45	32	3	3	Unknown	To be determined	
120	Quercus agrifolia	Coast Live Cak	12+12+13	40	16	3	2	Unknown	To be determined	Significant fire damage
121	Pseudotsuga douglasii	Douglas Fir	6	25	10	0	0	Unknown	Remove	
122	Quercus agrifolia	Coast Live Cak	8	21	12	2	2	Unknown	To be determined	Significant fire damage

	KEY TO TREE
	INVENTORY CHART
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KEY TO TREE INVENTORY CHART

Tree Number

Each tree has been identified in the field with an aluminum tag and reference number. Tags are attached to the trunk at approximately eye level. The *Tree Location Plan* illustrates the location of each numbered tree.

Species

Each tree has been identified by genus, species and common name. Many species have more than one common name.

Trunk

Each trunk has been measured or estimated, in inches, to document its diameter, at 4.5 feet above adjacent grade. Trunk diameter is a good indicator of age, and is commonly used to determine mitigation replacement requirements.

Height

Height is estimated in feet, using visual assessment.

Radius

Radius is estimated in feet, using visual assessment. Since many canopies are asymmetrical, it is not uncommon for a radius estimate to be an average of the canopy size.

Health

The following descriptions are used to rate the health of a tree. Trees with a rating of 4 or 5 are very good candidates for preservation and will tolerate more construction impacts than trees in poorer condition. Trees with a rating of 3 may or may not be good candidates for preservation, depending on the species and expected construction impacts. Trees with a rating of 1 or 2 are generally poor candidates for preservation.

- (5) Excellent health and vigor are exceptional, no pest, disease, or distress symptoms.
- (4) Good health and vigor are average, no significant or specific distress symptoms, no significant pest or disease.
- (3) Fair health and vigor are somewhat compromised, distress is visible, pest or disease may be present and affecting health, problems are generally correctable.
- (2) Marginal health and vigor are significantly compromised, distress is highly visible and present to the degree that survivability is in question.
- (1) Poor decline has progressed beyond the point of being able to return to a healthy condition again. Long-term survival is not expected. This designation includes dead trees.

Structure

The following descriptions are used to rate the structural integrity of a tree. Trees with a rating of 3 or 4 are generally stable, sound trees which do not require significant pruning, although cleaning, thinning, or raising the canopy might be desirable. Trees with a rating of 2 are generally poor candidates for preservation unless they are preserved well away from improvements or active use areas. Significant time and effort would be required to reconstruct the canopy and improve structural integrity. Trees with a rating of 1 are hazardous and should be removed.

- (4) Good structure minor structural problems may be present which do not require corrective action.
- (3) Moderate structure normal, typical structural issues which can be corrected with pruning.
- (2) Marginal structure serious structural problems are present which may or may not be correctable with pruning, cabling, bracing, etc.
- (1) Poor structure hazardous structural condition which cannot be effectively corrected with pruning or other measures, may require removal depending on location and the presence of targets.

Construction Impacts

Considering the proximity of construction activities, type of activities, tree species, and tree condition - the following ratings are used to estimate the amount of impact on tree health and stability. Most trees will tolerate a (1) rating, many trees could tolerate a (2) rating with careful consideration and mitigation, but trees with a (3) rating are poor candidates for preservation.

- (3) A significant impact on long term tree integrity can be expected as a result of proposed development.
- (2) A moderate impact on long term tree integrity can be expected as a result of proposed development.
- (1) A minor impact on long term tree integrity can be expected as a result of proposed development.
- (0). No impact is expected

Recommendations

Recommendations are provided for removal or preservation. For those being preserved, protection measures and mitigation procedures to offset impacts and improve tree health are provided.

- (1) Preservation appears to be possible.
- (2) Removal is required due to significant development impacts.
- (3) Removal is required due to poor health or hazardous structure.
- (4) Removal is required due to significant development impacts and poor existing condition.

- (5) Removal is recommended due to poor species characteristics.
- (6) Install temporary protective fencing at the edge of the dripline, or edge of approved construction, prior to beginning grading or construction. Maintain fencing in place for duration of all construction activity in the area.
- (7) Maintain existing grade within the fenced portion of the dripline. Route drainage swales and all underground work outside the dripline.
- (8) Place a 4" layer of chipped bark mulch over the soil surface within the fenced dripline prior to installing temporary fencing. Maintain this layer of mulch throughout construction.
- (9) Prune to clean the canopy, per International Society of Arboriculture pruning standards.
- (10) This trunk is located off site, but the canopy overhangs the project site.
- (11) Excavation may be required within the TPZ and the dripline for development. Excavation within the TPZ of any type must adhere to the following guidelines:

All roots encountered that are 2 inches or larger in diameter must be cleanly cut as they are encountered by excavating equipment.

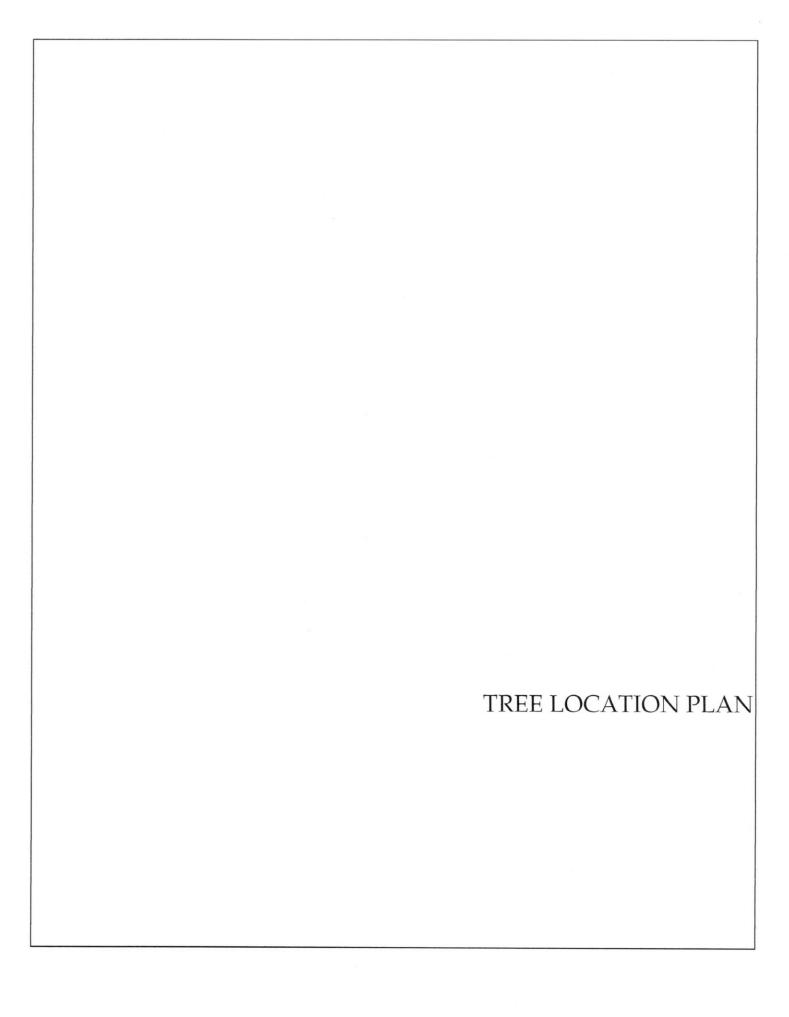
Roots may not be ripped from the ground and then trimmed. They must be trimmed as encountered and this will require the use of a ground man working with a suitable power tool.

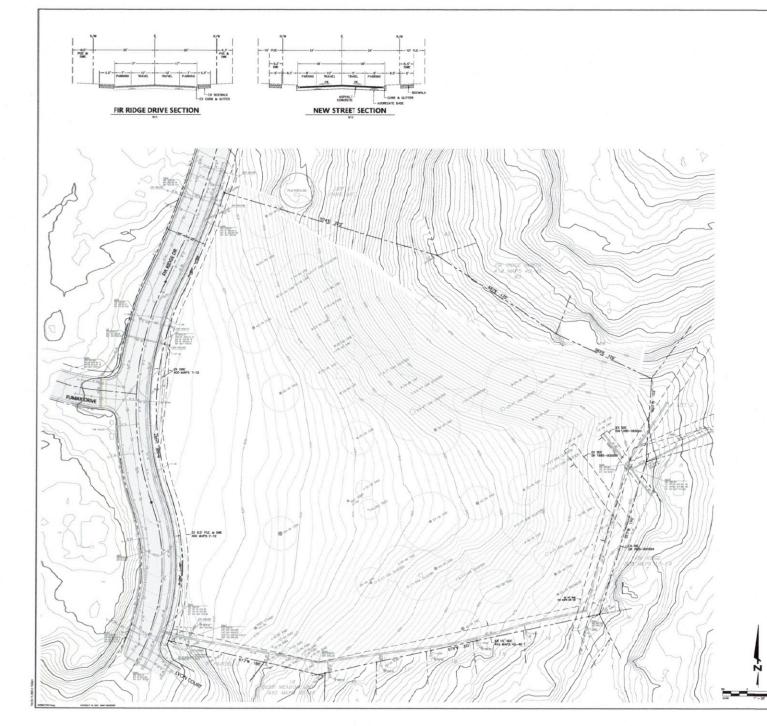
Pruned and exposed roots greater than 2 inches in diameter must be protected from desiccation if left exposed for more than 24 hours. Cover cut roots with heavy cloth, burlap, used carpeting, or similar material that has been soaked in water, until trench or excavation has been backfilled.

If excavation impacts more than 20% of the defined TPZ then supplemental irrigation may be required to offset loss of roots. Excavation in this case should be directed by the project arborist who will determine whether excavation is required, when, and how.

Any excavation within the defined TPZ will require that the tree be monitored on a monthly basis by the project arborist for the duration of construction and for one year beyond completion of construction. Monitoring may determine other mitigation measures that may be required to offset root loss or damage.

(13) This species is exempt from mitigation, per the tree ordinance







VICINITY MAP

PRESENT ZONENG PROPOSED ZONING --- ZONING

THIS SUBDIVISION IS WITHIN AN AREA DESIGNATED AS A HIGH FIRE SEVERITY ZONE

SOILS OR THIS SITE ARE NOT ANTICEPATED TO PROHIBIT THIS TYPE OF DEVELOPMENT.

ELECTRICAL SERVICE FOR THIS SUBDIVISION WILL BE UNDERGROUND.

DISTANCES AND ELEVATIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.

BASIS OF BEARINGS: MAP OF FIR RISGE NORTH AT FOUNTAINGHOVE, FILED FOR RECORD ON JUNE 8, 1988 IN BOOK 418 OF MAPS AT PAGES 43-48, DONOMA COUNTY RECORDS.

LOT SIZE SLAMARY

SMALLEST LOT.....
LARGEST LOT.....
AYERGE LOT.....

TENTATIVE MAP

FIR RIDGE SUBDIVISION

FIR KILDGE SUBDIVISIO

13 LOTS SHITA SUBERVISION OF THE LANS OF CITY OF SHITA IONA O
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SO-DOL DISTRICT, ACHICIAE, SUBDIVISION OF THE SHITA
DOCUMENT NO 2022-SHIBA LORING EXCURT SHOULD SHOW SHITA
CITYOF SHITA ROSA, CALLFORNIA
APAN 173-620-030

CONTAINING OSD ACRES

OCTOBER, 2022

JOB NO. 20220062

