Appendix C-4

Protected Oak Tree Arborist Report for Cancer Center Site

Protected Oak Tree Arborist Report

August 22, 2023

Report Prepared on Behalf of:
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Project Location:
Los Robles Hospital and Medical Center
400 Rollings Oaks Drive
Thousand Oaks, CA 91361
Project #3055500030

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1.0 Introduction

This arborist report discusses the impact of the proposed construction a new Los Robles Hospital and Medical Center building, new parking lot, and new landscaping occurring near 32 oak trees are located at 400 Rollings Oaks Drive, Thousand Oaks, CA 91361. The oak trees and Toyon landmark tree (Matrix of the Trees) are protected by the City of Thousand Oaks per Revised Oak Tree Preservation and Protection Guidelines, Resolution No 2010014. 14 protected oak trees are proposed for removal due to the proposed construction and the remaining 16 oaks are to be preserved and protected throughout the duration of the project. The project proposes 45 mitigation oaks: (29) 24-inch box and (16) 36-inch box, to be planted throughout the subject property to offset the loss of the removed oak trees.

Limits of Agreement

My examination of the trees is based on my visual inspection. My site examination and the information in this report is limited to the date and time the inspection occurred. The information in this report is limited to the condition of the trees at the time of my inspection. No risk assessment was performed. This report is not intended as and does not represent legal advice and should not be relied upon to take the place of such advice. Evergreen may supplement this report to expand or modify our findings based on review of additional information as it becomes available.

Purpose and Use of Report

HKS engaged the services of Evergreen Arborist Consultants to evaluate the protected trees and prepare a report. This report presents my observations and opinions concerning the protected trees. Information in this report is limited to the condition of the trees during my inspection on August 23, 2022. The report is to be used by HKS at their discretion.

2.0 Background and Project Description

The project proposes a new Los Robles Hospital and Medical Center building, new parking lot, and new landscaping on an existing lot and parking lot along Rolling Oaks Drive and Los Padres Drive. The oak trees and tree landmark tree are depicted on the attached Site Plan. The topography of the site is flat to moderately/steep sloped and the proposed Los Robles Hospital and Medical Center, parking lot, landscaping were not under construction at the time of my inspection.

3.0 Observations

As a way of measuring a tree's condition, we provide the following criteria: "Good," "Fair," "Poor" or "Dead/Dying" condition rating as a means to cumulatively measure their physiological health, structural integrity, anticipated life span, location, size, and specie type. A description of these ratings with the assigned tree is presented below. Many of the trees are in fair, poor, declining or dead condition due to the several years of drought conditions and lack of maintenance as the site has been abandoned. The dead, declining, and poor trees should be removed as soon as possible.

Good: These trees appear in overall good health, seem structurally stable, and have a high potential of providing long-term contribution to the site. They are the most suitable for retention and protection.

Fair: These trees require frequent care throughout their remaining life span, and provide less significance to the site than those assigned a high suitability. They may be worthy of retention, but not at the expense of significant design revisions.

Poor: These trees are predisposed to irreparable health and structural problems that are expected to worsen regardless of measures employed. They are the most suitable for removal.

Dead or dying: Tree should be removed

Existing tree environment including the type of terrain:

The oaks and toyon landmark tree are growing in a flat to moderately/steep sloped native areas and landscaped planters. The oaks and toyon landmark trees were accessible, except for oak tree #108 due to surrounding fencing, are located throughout the property. Some of the oaks and toyon tree appear to have been planted and some appear to have grown natively in their environment.

Appearance rating

Appearance rating on an "A-E" scale based on the following system:

"A": Outstanding: A healthy and vigorous tree characteristics of its species and free of any visible signs of disease or pest infestation.

"B": Above Average: A health and vigorous tree. However, there are minor visible signs of disease and pest infestation.

"C": Average: Although healthy in overall appearance, there is a normal amount of disease and/or pest infestation.

"D": Below Average/Poor: This tree is characterized by exhibiting a greater degree of disease and/or pest infestation than normal and appears to be in a state of decline. This tree also exhibits extensive signs of dieback.

"E": Dead: This tree exhibits no signs of life whatsoever.

My provided appearance rating for each tree is listed in Table 2.

Physical structure

Mitigation should include a 2" layer of wood chips or other high-quality mulch beneath the canopies of the trees. Keep mulch at least 6 inches from trunk. All dead branches on existing trees to be protected should be removed. All tools shall be sanitized in between cuts when pruning the tree.

My provided physical structure rating for each tree is listed in Table 2.

Horticulture Evaluation

My provided horticulture evaluation for each tree is listed in Table 2.

Summary of oak trees and Landmark tree.

Trees	Total	Total protected oaks removed	Protect	Mitigated Trees
Coast live oak	25	11	14	33
Coast live oak dead	2	0	0	0
Holly oak	3	2	1	6
Valley oak	2	1	1	3
Toyon	1	0	1	0
	33	14	17	42

Matrix of the Trees

Table 1. Tree Inventory

Tree No.	Tree	Species Name	Condition (Health)	DBH 1 - Inches	DBH 2 - Inches	DBH 3 - Inches	Height - Feet	Canopy Width 1 - Feet	Canopy Width 2 - Feet	Fencing Type	Tree Fencing Demensions	Recommendation
1	Redwood	*Sequoia sempervirens*	Dead	12	8	NA	30	12	10	NA	NA	Remove
2	Redwood	*Sequoia sempervirens*	Dead	18	NA	NA	34	13	18	NA	NA	Remove
3	Redwood	*Sequoia sempervirens*	Dead	21.5	NA	NA	40	24	14	NA	NA	Remove
4	Evergreen Ash	*Fraxinus uhdei*	Poor	15	NA	NA	40	26	17	NA	NA	Remove
5	Evergreen Ash	*Fraxinus uhdei*	Dead	23.5	NA	NA	50	32	36	NA	NA	Remove
6	Red ironbark	*Eucalyptus sideroxylon*	Fair	15.5	NA	NA	32	13	23	NA	NA	Remove
7	Red ironbark	*Eucalyptus sideroxylon*	Fair	15	NA	NA	30	13	16	NA	NA	Remove
8	Red ironbark	*Eucalyptus sideroxylon*	Fair	16	NA	NA	30	22	27	NA	NA	Remove
9	Red ironbark	*Eucalyptus sideroxylon*	Fair	16.5	NA	NA	35	26	18	NA	NA	Remove
10	Red ironbark	*Eucalyptus sideroxylon*	Fair	10	NA	NA	25	22	13	NA	NA	Remove
11	Red ironbark	*Eucalyptus sideroxylon*	Fair	18.5	NA	NA	40	32	17	NA	NA	Remove
12	Red ironbark	*Eucalyptus sideroxylon*	Fair	11.5	NA	NA	30	10	13	NA	NA	Remove
13	Red ironbark	*Eucalyptus sideroxylon*	Fair	11	NA	NA	25	26	15	NA	NA	Remove
14	Red ironbark	*Eucalyptus sideroxylon*	Fair	10	NA	NA	25	30	10	NA	NA	Remove
15	Red ironbark	*Eucalyptus sideroxylon*	Fair	13.5	NA	NA	30	12	14	NA	NA	Remove
16	Red ironbark	*Eucalyptus sideroxylon*	Fair	18.5	NA	NA	50	32	24	NA	NA	Remove
17	Red ironbark	*Eucalyptus sideroxylon*	Fair	23	NA	NA	50	32	38	NA	NA	Remove
18	Red ironbark	*Eucalyptus sideroxylon*	Fair	14.5	NA	NA	40	16	18	NA	NA	Remove
19	Red ironbark	*Eucalyptus sideroxylon*	Fair	24	NA	NA	50	39	30	NA	NA	Remove
20	Red ironbark	*Eucalyptus sideroxylon*	Fair	14.5	NA	NA	40	16	27	NA	NA	Remove
21	Red ironbark	*Eucalyptus sideroxylon*	Fair	14.5	NA	NA	30	18	17	NA	NA	Remove
22	Red ironbark	*Eucalyptus sideroxylon*	Fair	36	NA	NA	35	19	36	NA	NA	Remove
23	Red ironbark	*Eucalyptus sideroxylon*	Fair	16	NA	NA	30	21	26	NA	NA	Remove
24	Red ironbark	*Eucalyptus sideroxylon*	Fair	26	NA	NA	25	29	30	NA	NA	Remove
25	Red ironbark	*Eucalyptus sideroxylon*	Fair	15	NA	NA	40	31	26	NA	NA	Remove

Tree No.	Tree	Species Name	Condition (Health)	DBH 1 - Inches	DBH 2 - Inches	DBH 3 - Inches	Height - Feet	Canopy Width 1 - Feet	Canopy Width 2 - Feet	Fencing Type	Tree Fencing Demensions	Recommendation
26	Red ironbark	*Eucalyptus sideroxylon*	Fair	22.5	NA	NA	50	35	32	NA	NA	Remove
27	Blue gum	*Eucalyptus globulus*	Fair	20	NA	NA	35	30	34	NA	NA	Remove
28	Red ironbark	*Eucalyptus sideroxylon*	Fair	8	6	NA	20	18	16	NA	NA	Remove
29	Coast live oak	*Quercus agrifolia*	Good	17	12	NA	35	58	34	NA	NA	Remove
30	Holly oak	*Quercus ilex*	Fair	4	2	NA	10	8	10	NA	NA	Remove
31	Coast live oak	*Quercus agrifolia*	Good	11	8	7	24	26	30	NA	NA	Remove
32	Coast live oak	*Quercus agrifolia*	Good	17	NA	NA	22	22	20	NA	NA	Remove
33	Coast live oak	*Quercus agrifolia*	Good	5	NA	NA	12	10	8	NA	NA	Remove
34	Valley oak	*Quercus lobata*	Poor	20	NA	NA	30	18	22	NA	NA	Remove
35	Coast live oak	*Quercus agrifolia*	Good	13.5	10	NA	20	25	30	NA	NA	Remove
36	Red ironbark	*Eucalyptus sideroxylon*	Fair	18	13	NA	30	32	39	NA	NA	Remove
37	Red ironbark	*Eucalyptus sideroxylon*	Fair	18	NA	NA	30	12	16	NA	NA	Remove
38	Red ironbark	*Eucalyptus sideroxylon*	Fair	16	11	NA	35	42	49	NA	NA	Remove
39	Red ironbark	*Eucalyptus sideroxylon*	Poor	18.5	NA	NA	25	29	32	NA	NA	Remove
40	Red ironbark	*Eucalyptus sideroxylon*	Poor	18	NA	NA	20	13	22	NA	NA	Remove
41	Red ironbark	*Eucalyptus sideroxylon*	Fair	9	6	7	15	21	22	NA	NA	Remove
42	Red ironbark	*Eucalyptus sideroxylon*	Fair	18	NA	NA	25	31	30	NA	NA	Remove
43	Coast live oak	*Quercus agrifolia*	Good	5.5	NA	NA	15	10	10	Type 1	5 feet outside dripline of canopy	Protect
44	Coast live oak	*Quercus agrifolia*	Good	12	NA	NA	30	10	25	Type 1	5 feet outside dripline of canopy	Protect
45	Coast live oak	*Quercus agrifolia*	Good	9	NA	NA	25	6	10	Type 1	5 feet outside dripline of canopy	Protect
46	Coast live oak	*Quercus agrifolia*	Good	3	NA	NA	10	6	8	Type 1	5 feet outside dripline of canopy	Protect
47	Coast live oak	*Quercus agrifolia*	Good	3	NA	NA	12	4	8	Type 1	5 feet outside dripline of canopy	Protect
48	Coast live oak	*Quercus agrifolia*	Good	5	NA	NA	20	8	10	Type 1	5 feet outside dripline of canopy	Protect
49	Coast live oak	*Quercus agrifolia*	Good	2.5	NA	NA	10	4	4	Type 1	5 feet outside dripline of canopy	Protect
50	Coast live oak	*Quercus agrifolia*	Good	5	NA	NA	20	10	6	Type 1	5 feet outside dripline of canopy	Protect

Tree No.	Tree	Species Name	Condition (Health)	DBH 1 - Inches	DBH 2 - Inches	DBH 3 - Inches	Height - Feet	Canopy Width 1 - Feet	Canopy Width 2 - Feet	Fencing Type	Tree Fencing Demensions	Recommendation
51	Coast live oak	*Quercus agrifolia*	Good	3	3.5	NA	15	8	10	Type 1	5 feet outside dripline of canopy	Protect
52	Coast live oak	*Quercus agrifolia*	Good	2.5	NA	NA	20	6	4	Type 1	5 feet outside dripline of canopy	Protect
53	Coast live oak	*Quercus agrifolia*	Good	7.5	8	NA	30	14	20	Type 1	5 feet outside dripline of canopy	Protect
54	Coast live oak	*Quercus agrifolia*	Good	9	NA	NA	30	12	20	Type 1	5 feet outside dripline of canopy	Protect
55	Cottonwood	*Populus ssp.*	Declining	25	NA	NA	42	40	25	NA	NA	Remove
56	Red willow	*Salix laevigata*	Poor	9	NA	NA	25	14	12	NA	NA	Remove
57	Red willow	*Salix laevigata*	Poor	9	NA	NA	25	6	8	NA	NA	Remove
58	Red willow	*Salix laevigata*	Poor	6	NA	NA	25	22	20	NA	NA	Remove
59	Red willow	*Salix laevigata*	Poor	5	NA	NA	25	30	30	NA	NA	Remove
60	Red willow	*Salix laevigata*	Poor	6.5	NA	NA	25	10	20	NA	NA	Remove
61	Red willow	*Salix laevigata*	Poor	5.5	NA	NA	15	8	15	NA	NA	Remove
62	Evergreen Ash	*Fraxinus uhdei*	Fair	9	17	NA	30	25	35	NA	NA	Remove
63	Holly oak	*Quercus ilex*	Good	1.5	1.5	NA	14	6	8	Type 1	5 feet outside dripline of canopy	Protect
64	Coast live oak	*Quercus agrifolia*	Good	4	3.5	NA	20	12	10	Type 1	5 feet outside dripline of canopy	Protect
65	Red willow	*Salix laevigata*	Fair	11	NA	NA	25	30	35	NA	NA	Remove
66	Toyon	*Heteromeles arbutifolia*	Good	8	11	6.5	30	25	45	Type 1	10 feet outside dripline of canopy	Protect
67	Red ironbark	*Eucalyptus sideroxylon*	Fair	21	NA	NA	35	29	26	NA	NA	Remove
68	Red ironbark	*Eucalyptus sideroxylon*	Fair	18	22	NA	50	33	48	NA	NA	Remove
69	Red ironbark	*Eucalyptus sideroxylon*	Fair	17	NA	NA	30	19	33	NA	NA	Remove
70	Red ironbark	*Eucalyptus sideroxylon*	Fair	14	NA	NA	30	26	13	NA	NA	Remove
71	Aleppo pine	*Pinus halepensis*	Fair	24	25	NA	70	53	44	NA	NA	Remove
72	Aleppo pine	*Pinus halepensis*	Fair	25	NA	NA	60	42	26	NA	NA	Remove
73	Aleppo pine	*Pinus halepensis*	Fair	21	NA	NA	70	32	32	NA	NA	Remove
74	Evergreen pear	*Pyrus kawakamii*	Good	9	NA	NA	16	21	16	NA	NA	Remove
75	Evergreen pear	*Pyrus kawakamii*	Fair	7	NA	NA	10	11	11	NA	NA	Remove

Tree No.	Tree	Species Name	Condition (Health)	DBH 1 - Inches	DBH 2 - Inches	DBH 3 - Inches	Height - Feet	Canopy Width 1 - Feet	Canopy Width 2 - Feet	Fencing Type	Tree Fencing Demensions	Recommendation
76	Coast live oak	*Quercus agrifolia*	Dead	6	NA	NA	10	4	8	NA	NA	Remove
77	Coast live oak	*Quercus agrifolia*	Fair	6	6	5	12	8	10	NA	NA	Remove
78	Coast live oak	*Quercus agrifolia*	Fair	2.5	2.5	NA	10	6	4	NA	NA	Remove
79	Coast live oak	*Quercus agrifolia*	Dead	6	NA	NA	10	8	10	NA	NA	Remove
80	Coast live oak	*Quercus agrifolia*	Fair	2	3	NA	10	4	6	NA	NA	Remove
81	Coast live oak	*Quercus agrifolia*	Good	3	3	3	10	8	13	NA	NA	Remove
82	Coast live oak	*Quercus agrifolia*	Good	2	2.5	NA	9	4	6	NA	NA	Remove
83	Aleppo pine	*Pinus halepensis*	Good	7	NA	NA	25	10	18	NA	NA	Remove
84	Evergreen pear	*Pyrus kawakamii*	Fair	9.5	NA	NA	15	21	18	NA	NA	Remove
85	Red ironbark	*Eucalyptus sideroxylon*	Poor	17	NA	NA	35	23	32	NA	NA	Remove
86	Red ironbark	*Eucalyptus sideroxylon*	Poor	21	4	NA	35	24	39	NA	NA	Remove
87	Red ironbark	*Eucalyptus sideroxylon*	Declining	17	NA	NA	30	23	32	NA	NA	Remove
88	Red ironbark	*Eucalyptus sideroxylon*	Fair	25	NA	NA	30	32	24	NA	NA	Remove
89	Valley oak	*Quercus lobata*	Fair	5.5	NA	NA	12	12	18	Type 1	5 feet outside dripline of canopy	Protect
90	Red ironbark	*Eucalyptus sideroxylon*	Fair	15	NA	NA	30	16	27	NA	NA	Remove
91	Red ironbark	*Eucalyptus sideroxylon*	Fair	21	NA	NA	25	23	34	NA	NA	Remove
92	Red ironbark	*Eucalyptus sideroxylon*	Fair	17	NA	NA	25	15	26	NA	NA	Remove
93	Evergreen pear	*Pyrus kawakamii*	Good	13.5	NA	NA	20	24	35	NA	NA	Remove
94	Evergreen pear	*Pyrus kawakamii*	Good	16	NA	NA	25	20	25	NA	NA	Remove
95	Evergreen pear	*Pyrus kawakamii*	Good	12	NA	NA	20	17	25	NA	NA	Remove
96	Holly oak	*Quercus ilex*	Fair	7	NA	NA	12	13	16	NA	NA	Remove
97	Coast live oak	*Quercus agrifolia*	Poor	3	NA	NA	6	4	4	NA	NA	Remove
98	Evergreen pear	*Pyrus kawakamii*	Good	15	NA	NA	15	34	25	NA	NA	Remove
99	Evergreen pear	*Pyrus kawakamii*	Good	7.5	NA	NA	10	9	12	NA	NA	Remove
100	Flowering ornamental pear	*Pyrus calleryana*	Fair	2	NA	NA	9	5	3	Type 1	along property line	Protect

Tree No.	Tree	Species Name	Condition (Health)	DBH 1 - Inches	DBH 2 - Inches	DBH 3 - Inches	Height - Feet	Canopy Width 1 - Feet	Canopy Width 2 - Feet	Fencing Type	Tree Fencing Demensions	Recommendation
101	Flowering ornamental pear	*Pyrus calleryana*	Poor	2	NA	NA	8	4	3	Type 1	along property line	Retain
102	Flowering ornamental pear	*Pyrus calleryana*	Good	1.5	1.5	NA	10	6	8	NA	NA	Retain
103	Flowering ornamental pear	*Pyrus calleryana*	Fair	2.5	NA	NA	10	8	6	NA	NA	Retain
104	Flowering ornamental pear	*Pyrus calleryana*	Fair	1.5	2.5	NA	13	6	8	NA	NA	Retain
105	Flowering ornamental pear	*Pyrus calleryana*	Good	5	NA	NA	20	14	12	NA	NA	Retain
106	Flowering ornamental pear	*Pyrus calleryana*	Good	2	2	2	15	6	8	NA	NA	Retain
107	Flowering ornamental pear	*Pyrus calleryana*	Good	6	2	4.5	20	14	19	NA	NA	Retain
108	Coast live oak	*Quercus agrifolia*	Good	26	32	28	35	65	58	Type 1	underneath edge of dripline/propertyline	Protect

Trees proposed for retention – install Type I fencing with plywood as recommended in Table 1 and Site Plan to provide protection during the construction process.

Table 2. Tree Ratings

Tree No.	Tree	*Species*	Condition (Health)	Appearance Rating	Physical Structure	Horticulture Evaluation	Mitigation Measures	Relocation Feasibility Oaks
1	Redwood	*Sequoia sempervirens*	Dead	Dead	Poor, dead	dead	NA	
2	Redwood	*Sequoia sempervirens*	Dead	Dead	Poor, dead	dead	NA	
3	Redwood	*Sequoia sempervirens*	Dead	Dead	Poor, dead	dead	NA	
4	Evergreen Ash	*Fraxinus uhdei*	Poor	Below Average/Poor	poor declining	declining and thinning canopy	NA	
5	Evergreen Ash	*Fraxinus uhdei*	Dead	Below Average/Poor	Poor, dead	dead	NA	
6	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
7	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
8	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
9	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
10	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
11	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
12	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
13	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	leaning, unbalanced crwon	dead branches, lack of maintenance	NA	
14	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
15	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
16	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
17	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
18	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
19	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
20	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	

Tree No.	Tree	*Species*	Condition (Health)	Appearance Rating	Physical Structure	Horticulture Evaluation	Mitigation Measures	Relocation Feasibility Oaks
21	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
22	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
23	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
24	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
25	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
26	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
27	Blue gum	*Eucalyptus globulus*	Fair	Average	bowed trunk	dead branches, lack of maintenance	NA	
28	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
29	Coast live oak	*Quercus agrifolia*	Good	Above average	Good	good leaf color	NA	No
30	Holly oak	*Quercus ilex*	Poor	Below Average/Poor	dieback in canopy	drought stressed, lack of maintenance	NA	No
31	Coast live oak	*Quercus agrifolia*	Good	Above average	Good	good leaf color	NA	No
32	Coast live oak	*Quercus agrifolia*	Good	Above average	Good	good leaf color	NA	No
33	Coast live oak	*Quercus agrifolia*	Good	Above average	Good	good leaf color	NA	No
34	Valley oak	*Quercus lobata*	Poor	Below Average/Poor	leaning, unbalanced crwon	dead branches, drought stressed	NA	No
35	Coast live oak	*Quercus agrifolia*	Good	Average	Good	minor dead branches, lack of maintenance	NA	No
36	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	dead branches, lack of maintenance	NA	
37	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	bowed trunk	dead branches, lack of maintenance	NA	
38	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
39	Red ironbark	*Eucalyptus sideroxylon*	Poor	Below Average/Poor	topped	dead branches, lack of maintenance	NA	
40	Red ironbark	*Eucalyptus sideroxylon*	Poor	Below Average/Poor	topped	dead branches, lack of maintenance	NA	
41	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
42	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	average for species	dead branches, lack of maintenance	NA	
43	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
44	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
45	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
46	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
47	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
48	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
49	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
50	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	

Tree No.	Tree	*Species*	Condition (Health)	Appearance Rating	Physical Structure	Horticulture Evaluation	Mitigation Measures	Relocation Feasibility Oaks
51	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
52	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
53	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
54	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	
55	Cottonwood	*Populus ssp.*	Declining	Below Average/Poor	Leaning	dead branches, declining	NA	
56	Red willow	*Salix laevigata*	Poor	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
57	Red willow	*Salix laevigata*	Poor	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
58	Red willow	*Salix laevigata*	Poor	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
59	Red willow	*Salix laevigata*	Poor	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
60	Red willow	*Salix laevigata*	Poor	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
61	Red willow	*Salix laevigata*	Poor	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
62	Evergreen Ash	*Fraxinus uhdei*	Fair	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
63	Holly oak	*Quercus ilex*	Good	Average	Good	good leaf color	apply high-quality mulch	No
64	Coast live oak	*Quercus agrifolia*	Good	Average	Good	good leaf color	apply high-quality mulch	No
65	Red willow	*Salix laevigata*	Fair	Below Average/Poor	Leaning	dead branches, lack of maintenance	NA	
66	Toyon	*Heteromeles arbutifolia*	Good	Above average	Good	good leaf color	NA	
67	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
68	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	average for species	minor dead branches, lack of maintenance	NA	
69	Red ironbark	*Eucalyptus sideroxylon*	Fair	Average	Leaning	minor dead branches, lack of maintenance	NA	
70	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	unbalanced crwon	dead branches, lack of maintenance	NA	
71	Aleppo pine	*Pinus halepensis*	Fair	Below Average/Poor	included bark - trunks	dead branches, lack of maintenance, drought stressed	NA	
72	Aleppo pine	*Pinus halepensis*	Fair	Below Average/Poor	unbalanced crwon	dead branches, lack of maintenance, drought stressed	NA	
73	Aleppo pine	*Pinus halepensis*	Fair	Below Average/Poor	unbalanced crwon	dead branches, lack of maintenance, drought stressed	NA	
74	Evergreen pear	*Pyrus kawakamii*	Good	Average	Leaning	minor dead branches, lack of maintenance	NA	
75	Evergreen pear	*Pyrus kawakamii*	Fair	Below Average/Poor	Good	dead branches, fire blight	NA	
76	Coast live oak	*Quercus agrifolia*	Dead	Dead	Poor, dead	dead	NA	No
77	Coast live oak	*Quercus agrifolia*	Fair	Average	Good	minor dead branches, lack of maintenance	NA	No
78	Coast live oak	*Quercus agrifolia*	Fair	Average	Good	minor dead branches, lack of maintenance	NA	No
79	Coast live oak	*Quercus agrifolia*	Dead	Dead	Poor, dead	dead	NA	No
80	Coast live oak	*Quercus agrifolia*	Fair	Below Average/Poor	Good	dead branches, lack of maintenance	NA	No

Tree No.	Tree	*Species*	Condition (Health)	Appearance Rating	Physical Structure	Horticulture Evaluation	Mitigation Measures	Relocation Feasibility Oaks
81	Coast live oak	*Quercus agrifolia*	Good	Average	Good	minor dead branches	NA	No
82	Coast live oak	*Quercus agrifolia*	Good	Average	Good	minor dead branches, lack of maintenance	NA	No
83	Aleppo pine	*Pinus halepensis*	Good	Average	Good	minor dead branches, lack of maintenance	NA	
84	Evergreen pear	*Pyrus kawakamii*	Fair	Below Average/Poor	Good	dead branches, fire blight	NA	
85	Red ironbark	*Eucalyptus sideroxylon*	Poor	Below Average/Poor	average for species	dead branches, lack of maintenance	NA	
86	Red ironbark	*Eucalyptus sideroxylon*	Poor	Below Average/Poor	average for species	dead branches, lack of maintenance	NA	
87	Red ironbark	*Eucalyptus sideroxylon*	Declining	Below Average/Poor	dieback in canopy	dead branches, lack of maintenance	NA	
88	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	unbalanced crwon	dead branches, lack of maintenance	NA	
89	Valley oak	*Quercus lobata*	Fair		Good	dead branches, lack of maintenance, drought stressed	apply high-quality mulch	
90	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	average for species	dead branches, lack of maintenance, drought stressed	NA	
91	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	average for species	dead branches, lack of maintenance, drought stressed	NA	
92	Red ironbark	*Eucalyptus sideroxylon*	Fair	Below Average/Poor	bowed trunk	dead branches, lack of maintenance, drought stressed	NA	
93	Evergreen pear	*Pyrus kawakamii*	Good	Average	Good	dead branches, fire blight	NA	
94	Evergreen pear	*Pyrus kawakamii*	Good	Average	bowed trunk	dead branches, fire blight	NA	
95	Evergreen pear	*Pyrus kawakamii*	Good	Average	Good	dead branches, fire blight	NA	
96	Holly oak	*Quercus ilex*	Fair	Below Average/Poor	Good	dead branches, lack of maintenance, drought stressed	NA	No
97	Coast live oak	*Quercus agrifolia*	Poor	Below Average/Poor	topped	dead branches, lack of maintenance, drought stressed	NA	No
98	Evergreen pear	*Pyrus kawakamii*	Good	Average	bowed trunk	dead branches, fire blight	NA	
99	Evergreen pear	*Pyrus kawakamii*	Good	Average	Good	dead branches, fire blight	NA	
100	Flowering ornamental pear	*Pyrus calleryana*	Fair	Below Average/Poor	Good	thin canopy	apply high-quality mulch	

Tree No.	Tree	*Species*	Condition (Health)	Appearance Rating	Physical Structure	Horticulture Evaluation	Mitigation Measures	Relocation Feasibility Oaks
101	Flowering ornamental pear	*Pyrus calleryana*	Poor	Below Average/Poor	Good	thin canopy	apply high-quality mulch	
102	Flowering ornamental pear	*Pyrus calleryana*	Good	Average	Good	good leaf color	apply high-quality mulch	
103	Flowering ornamental pear	*Pyrus calleryana*	Fair	Below Average/Poor	Good	thin canopy	apply high-quality mulch	
104	Flowering ornamental pear	*Pyrus calleryana*	Fair	Below Average/Poor	Good	thin canopy	apply high-quality mulch	
105	Flowering ornamental pear	*Pyrus calleryana*	Good	Average	Good	good leaf color	apply high-quality mulch	
106	Flowering ornamental pear	*Pyrus calleryana*	Good	Average	Good	good leaf color	apply high-quality mulch	
107	Flowering ornamental pear	*Pyrus calleryana*	Good	Average	Good	good leaf color	apply high-quality mulch	
108	Coast live oak	*Quercus agrifolia*	Good	Above average	Good	good leaf color	Prune overhanging branches	

4.0 Tree Preservation Guidelines

Construction activities near trees may have long-term effects on trees. Trees vary in their ability to adapt to altered growing conditions. Mature trees have established stable biological systems in the pre-existing physical environment. Disruption of this environment by construction activities interrupts the tree's physiological processes causing depletion of energy reserves and a decline in vigor, which may result in a tree's death. Typically, this reaction develops between one to three years, but symptoms may not show for many years after disruption. The tree protection regulations are intended to guide a construction project to ensure that appropriate practices will be implemented in the field to eliminate undesirable consequences that may result from uninformed or careless acts, and preserve both trees and property values.

Best Management Practices (BMP) are designed to preserve and protect tree health by avoiding damage to tree roots, trunk, or crown. Site development and prior planning is an important component to avoid disturbance within the Tree Protection Zone (TPZ) for all trees designated for protection. BMP consists of avoiding any activity near protected tree that disturbs or harms the tree. Tree protection provides for the physical protective barriers during any site disturbance that may impact protected tree and their roots such as grading, building construction and maintenance, infrastructure and utility installation and maintenance, and other landscape changes. These impacts may affect the structural integrity and stability of protected trees.

The proposed trees designated for protection (Matrix of the Trees) must be protected by the contractors in the TPZ. The trees listed in this report under "preserve" are suitable for preservation and have the potential for longevity at the site. If all of my recommendations and City regulations are followed, the trees proposed for retention (Matrix of the Trees) should be preserved and protected. The trees proposed for retention (Matrix of the Trees) are rated for suitability for preservation based upon age, health, structural condition, and ability to safely coexist within a development environment.

5.0 Tree Protection Measures

Recommendations presented within this section serve as general design guidelines to help mitigate or avoid damage in conformance with the City requirements. They are subject to revision upon reviewing the project plans and the Project Arborist should be consulted in the event any cannot be feasibly implemented. Please note any referenced distances from trunks are intended from the closest edge (face) of their outermost perimeter at soil grade.

Encroachment of the Trees

The proposed construction will not involve raising or lowering the grade of the soil around the base of the trees or tree protection zone for the trees that are to remain and be protected.

The minimum clearance from the present grade to the bottom of the canopy on each of the compass points as well as the encroachment of the proposed construction within the face of the trunk are shown below:

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
1	Redwood	6	6	5	6	6	5	5	5	Distance to trunk	
1	Redwood	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
2	Redwood	7	7	9	6	6	9	9	9	Distance to trunk	
2	Redwood	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
3	Redwood	12	12	7	12	12	7	7	7	Distance to trunk	
3	Redwood	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
4	Evergreen Ash	13	13	9'	13	13	9'	9'	9	Distance to trunk	
4	Evergreen Ash	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
5	Evergreen Ash	16	16	18	16	16	18	18	18	Distance to trunk	
5	Evergreen Ash	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
6	Red ironbark	6	6	11	7	7	12	12	11	Distance to trunk	
6	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
7	Red ironbark	7	7	8'	6	6	8	8	8	Distance to trunk	
7	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
8	Red ironbark	11	11	13	13	11	14	14	13	Distance to trunk	
8	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
9	Red ironbark	13	13	9	13	13	9	9	9	Distance to trunk	
9	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
10	Red ironbark	11	11	7	7	11	6	6	11	Distance to trunk	
10	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
11	Red ironbark	16	16	8	16	16	8	9	9	Distance to trunk	
11	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
12	Red ironbark	5	5	7	5	5	6	6	7	Distance to trunk	
12	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
13	Red ironbark	13	13	8	13	13	9	9	9	Distance to trunk	
13	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
14	Red ironbark	15	15	5	5	15	5	5	15	Distance to trunk	
14	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
15	Red ironbark	6	6	7	7	6	7	7	6	Distance to trunk	
15	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
16	Red ironbark	16	16	12	12	16	12	12	16	Distance to trunk	
16	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
17	Red ironbark	16	16	19	19	16	19	19	16	Distance to trunk	
17	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
18	Red ironbark	8	8	9	9	8	9	9	8	Distance to trunk	
18	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
19	Red ironbark	19	19	15	20	20	15	15	15	Distance to trunk	
19	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
20	Red ironbark	8	8	13	8	8	14	14	14	Distance to trunk	
20	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
21	Red ironbark	9	9	8	8	9	9	9	9	Distance to trunk	
21	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
22	Red ironbark	9	9	18	10	10	18	18	10	Distance to trunk	
22	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
23	Red ironbark	10	10	13	13	11	11	13	13	Distance to trunk	
23	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
24	Red ironbark	14	14	15	15	15	15	15	15	Distance to trunk	
24	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
25	Red ironbark	15	15	13	13	16	13	13	15	Distance to trunk	
25	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
26	Red ironbark	17	17	16	16	18	16	16	17	Distance to trunk	
26	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
27	Blue gum	15	15	17	17	15	17	17	15	Distance to trunk	
27	Blue gum	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
28	Red ironbark	9	9	8	8	9	8	8	9	Distance to trunk	
28	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
29	Coast live oak	29	29	17	17	29	17	17	29	Distance to trunk	
29	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
30	Holly oak	4	4	5	5	4	5	5	4	Distance to trunk	
30	Holly oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
31	Coast live oak	13	13	15	15	13	15	15	13	Distance to trunk	
31	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
32	Coast live oak	11	11	10	10	11	10	10	11	Distance to trunk	
32	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
33	Coast live oak	5	5	4	4	5	4	4	5	Distance to trunk	
33	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
34	Valley oak	0	0	11	11	9	11	9	0	Distance to trunk	
34	Valley oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
35	Coast live oak	12	12	15	15	13	15	15	13	Distance to trunk	
35	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
36	Red ironbark	16	16	19	19	16	16	20	16	Distance to trunk	
36	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
37	Red ironbark	6	6	8	8	6	8	8	6	Distance to trunk	
37	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
38	Red ironbark	21	21	24	24	21	25	25	21	Distance to trunk	
38	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
39	Red ironbark	14	14	16	16	15	16	16	15	Distance to trunk	
39	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
40	Red ironbark	6.5	6.5	11	11	6.5	11	11	6.5	Distance to trunk	
40	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
41	Red ironbark	11	11	11	11	10	11	11	10	Distance to trunk	
41	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
42	Red ironbark	16	16	30	30	15	30	30	15	Distance to trunk	
42	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
43	Coast live oak	5	5	5	5	5	5	5	5	Distance to trunk	
43	Coast live oak	10	10	10	10	10	10	10	10	Minimum clearance	within 10 ft of trunk face
44	Coast live oak	5	5	12	12	5	13	13	5	Distance to trunk	
44	Coast live oak	10	10	10	10	10	10	10	10	Minimum clearance	within 10 ft of trunk face
45	Coast live oak	3	3	5	5	3	5	5	3	Distance to trunk	
45	Coast live oak	10	10	10	10	10	10	10	10	Minimum clearance	within 10 ft of trunk face
46	Coast live oak	3	3	4	4	3	4	4	3	Distance to trunk	
46	Coast live oak	10	10	10	10	10	10	10	10	Minimum clearance	within 10 ft of trunk face
47	Coast live oak	2	2	4	4	2	4	4	2	Distance to trunk	
47	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
48	Coast live oak	4	4	5	5	4	5	5	4	Distance to trunk	
48	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
49	Coast live oak	2	2	2	2	2	2	2	2	Distance to trunk	
49	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
50	Coast live oak	5	5	3	3	5	3	3	5	Distance to trunk	
50	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
51	Coast live oak	4	4	5	5	4	5	5	4	Distance to trunk	
51	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
52	Coast live oak	3	3	2	2	3	2	2	3	Distance to trunk	
52	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
53	Coast live oak	7	7	10	10	7	10	10	7	Distance to trunk	
53	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
54	Coast live oak	6	6	10	10	6	10	10	6	Distance to trunk	
54	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
55	Cottonwood	20	20	12.5	12.5	20	12.5	12.5	20	Distance to trunk	
55	Cottonwood	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
56	Red willow	7	7	6	6	7	6	6	7	Distance to trunk	
56	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
57	Red willow	3	3	4	4	3	4	4	3	Distance to trunk	
57	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
58	Red willow	11	11	10	10	11	10	10	11	Distance to trunk	
58	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
59	Red willow	15	15	15	15	15	15	15	15	Distance to trunk	
59	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
60	Red willow	5	5	10	10	5	10	10	5	Distance to trunk	
60	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
61	Red willow	4	4	7	7	4	8	8	4	Distance to trunk	
61	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
62	Evergreen Ash	12	12	17	17	13	18	18	12	Distance to trunk	
62	Evergreen Ash	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
63	Holly oak	3	3	4	4	3	4	4	3	Distance to trunk	
63	Holly oak	13	13	13	13	13	13	13	13	Minimum clearance	tree will NOT be encroached
64	Coast live oak	6	6	5	5	6	5	5	6	Distance to trunk	
64	Coast live oak	17	17	17	17	17	17	17	17	Minimum clearance	tree will NOT be encroached
65	Red willow	15	15	17	17	15	18	18	15	Distance to trunk	
65	Red willow	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
66	Toyon	13	13	22	22	12	23	23	12	Distance to trunk	
66	Toyon	10	10	10	10	10	10	10	10	Minimum clearance	within 10 ft of trunk face
67	Red ironbark	14	14	13	13	15	13	13	14	Distance to trunk	
67	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
68	Red ironbark	16	16	24	24	17	24	24	16	Distance to trunk	
68	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
69	Red ironbark	9	9	17	17	10	16	16	9	Distance to trunk	
69	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
70	Red ironbark	13	13	6	6	13	7	7	13	Distance to trunk	
70	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
71	Aleppo pine	26	26	22	22	27	22	22	26	Distance to trunk	
71	Aleppo pine	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
72	Aleppo pine	21	21	13	13	21	13	13	21	Distance to trunk	
72	Aleppo pine	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
73	Aleppo pine	16	16	16	16	16	16	16	16	Distance to trunk	
73	Aleppo pine	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
74	Evergreen pear	10.5	10.5	8	8	10.5	8	8	10.5	Distance to trunk	
74	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
75	Evergreen pear	5	5	6	6	6	6	6	5	Distance to trunk	
75	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
76	Coast live oak	2	2	4	4	2	4	4	2	Distance to trunk	
76	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
77	Coast live oak	4	4	5	5	4	5	5	4	Distance to trunk	
77	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
78	Coast live oak	3	3	2	2	3	2	2	3	Distance to trunk	
78	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
79	Coast live oak	4	4	5	5	4	5	5	4	Distance to trunk	
79	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
80	Coast live oak	2	2	3	3	2	3	3	2	Distance to trunk	
80	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
81	Coast live oak	4	4	6	6	4	7	7	4	Distance to trunk	
81	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
82	Coast live oak	2	2	3	3	2	3	3	2	Distance to trunk	
82	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
83	Aleppo pine	5	5	9	9	5	9	9	5	Distance to trunk	
83	Aleppo pine	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
84	Evergreen pear	10	10	9	9	11	9	9	10	Distance to trunk	
84	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
85	Red ironbark	11	11	16	16	12	16	16	11	Distance to trunk	
85	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
86	Red ironbark	12	12	19	19	12	20	20	12	Distance to trunk	
86	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
87	Red ironbark	12	12	16	16	11	16	16	12	Distance to trunk	
87	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
88	Red ironbark	16	16	12	12	16	12	12	16	Distance to trunk	
88	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
89	Valley oak	6	6	9	9	6	9	9	6	Distance to trunk	
89	Valley oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
90	Red ironbark	8	8	14	14	8	13	13	8	Distance to trunk	
90	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
91	Red ironbark	11	11	17	17	12	17	17	11	Distance to trunk	
91	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
92	Red ironbark	8	8	13	13	7	13	13	8	Distance to trunk	
92	Red ironbark	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
93	Evergreen pear	12	12	17	17	12	18	18	12	Distance to trunk	
93	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
94	Evergreen pear	10	10	13	13	10	12	12	10	Distance to trunk	
94	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
95	Evergreen pear	8	8.5	13	13	9	12	12	8	Distance to trunk	
95	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
96	Holly oak	7	7	8	8	6	6	8	7	Distance to trunk	
96	Holly oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
97	Coast live oak	2	2	2	2	2	2	2	2	Distance to trunk	
97	Coast live oak	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
98	Evergreen pear	17	17	12	12	17	13	13	17	Distance to trunk	
98	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached
99	Evergreen pear	4.5	4.5	6	6	4.5	6	6	4.5	Distance to trunk	
99	Evergreen pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree trunk will be encroached

Tree No.	Tree	N	NE	E	SE	S	SW	W	NW	Notes	Encroachment within face of trunk (ft)
100	Flowering ornamental pear	2	2	2	2	3	3	3	2	Distance to trunk	
100	Flowering ornamental pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
101	Flowering ornamental pear	2	2	2	2	2	3	3	2	Distance to trunk	
101	Flowering ornamental pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
102	Flowering ornamental pear	3	3	4	4	3	4	4	3	Distance to trunk	
102	Flowering ornamental pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
103	Flowering ornamental pear	4	4	3	3	4	3	3	4	Distance to trunk	
103	Flowering ornamental pear	10'	10'	32'	26'	14'	14'	8'	8'	Minimum clearance	tree will NOT be encroached
104	Flowering ornamental pear	3	3	4	4	3	4	4	3	Distance to trunk	
104	Flowering ornamental pear	6'	6'	6'	6'	6'	6'	6'	6'	Minimum clearance	tree will NOT be encroached
105	Flowering ornamental pear	7	7	6	6	7	6	6	7	Distance to trunk	
105	Flowering ornamental pear	10'	10'	28'	28'	26'	26'	2'	8'	Minimum clearance	tree will NOT be encroached
106	Flowering ornamental pear	3	3	4	4	3	4	4	3	Distance to trunk	
106	Flowering ornamental pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
107	Flowering ornamental pear	7	7	9.5	9.5	7	9.5	9.5	7	Distance to trunk	
107	Flowering ornamental pear	NA	NA	NA	NA	NA	NA	NA	NA	Minimum clearance	tree will NOT be encroached
108	Coast live oak	29	34	29	29	38	32	32	34	Distance to trunk	
108	Coast live oak	29	29	29	29	38	32	32	34	Minimum clearance	within 29 ft of trunk face

5.1 Design Guidelines

1. In the TPZ, all trenching, soil scraping, compaction, mass grading, finish-grading, over excavation, sub excavation, swales, bio swales, storm drains, equipment cleaning, stockpiling/dumping of materials, and equipment operation shall be avoided. Where an impact encroaches slightly within a setback, it can be reviewed on a case-by-case basis by the Project Arborist to determine appropriate mitigation measures.

2. All existing unused lines, pipes, and vaults within the TPZ should be abandoned and cut off at existing grade rather than being dug up and causing subsequent root damage.

3. The permanent and temporary drainage design, including downspouts, should not require water being discharged within the TPZ. The drainage should not require trenching for storm drains or swales within the TPZ.

4. Underground utilities and services should be routed beyond the TPZ. Where this is not feasible, the section of line(s) within the TPZ should be directionally bored by at least 4 feet below existing grade or installed by other means to avoid open trench.

5. The future staging area and route(s) of access should not be in TPZ.

6. Restrict spoils and runoff from traveling into root zones, the future erosion control design should establish any silt fencing or straw wattles away from the tree's trunk (not against it) and as close to the canopy's edge as possible.

The proposed landscape design should conform to the following additional guidelines:

7. Plant material installed beneath the canopies of the protected trees, if applicable, must be appropriate and planted at least 3 feet from the trunk.

8. Irrigation should not spray the trunk.

9. Irrigation, valves, and lighting features should be placed so that no trenching occurs within the TPZ.

10. New property fencing and fence posts should be placed at least 2 feet from the tree trunk.

11. Groundcover beneath the canopy should be comprised of a 2" layer of wood chips or other high quality mulch. Keep mulch at least 6 inches from trunk.

12. Tilling, ripping, and compaction within the TPZ should be avoided.

13. Bender board or other edging material proposed beneath the canopy should be placed at existing grade.

14. Roots with diameters of 2-inches or greater should not be damaged or cut without prior assessment of the Project Arborist. All tools shall be sanitized in between cuts. Materials commonly used to sterilize tools include bleach (10 percent solution) or Lysol. An hourly rate shall be charged for these inspections.

Required fencing should not be removed until completion of project.

5.2 During Demolition and Construction

1. Tree trunks shall not be used as winch supports for moving or lifting heavy loads.

2. The removal of existing features within the TPZ must be carefully performed to avoid excavating into root zones.

3. Roots with diameters of 2-inches or greater should not be damaged or cut without prior assessment of the Project Arborist. All tools shall be sanitized in between cuts. Materials commonly used to sterilize tools include bleach (10 percent solution) or Lysol. An hourly rate shall be charged for these inspections.

4. Supplemental water will be needed to help mitigate root loss/disturbance. Supplemental water should be applied once a month or based on local ET Weather data throughout the duration of the project

5. Spoils created during digging shall not be piled or spread on unpaved ground within the TPZ.

6. Digging holes for fence posts within the TPZ should be manually performed. In the event a root of 1-inches or greater in diameter is encountered, the process should be shifted over by 12-inches and the process repeated.

7. Great care must be taken by equipment operators to position their equipment to avoid the trunks of protected trees. The Project Arborist can be consulted to provide a feasible solution if needed.

8. Dust accumulating on trunks and canopies during dry weather periods and should be periodically washed away every 3 to 4 months. Dust accumulating on trunks and canopies after grading should also be washed at the completion of the grading.

9. The disposal of harmful products is prohibited beneath the canopies. Herbicide should not be used within a TPZ on site or should be labeled for safe use near trees.

5.3 Soil Compaction

Soil compaction is a complex set of physical, chemical, and biological constraints on tree growth. Principal components leading to limited growth are the loss of aeration and pore space, poor gas exchange with the atmosphere, lack of available water, and mechanical impedance of root growth. Soil compaction is considered to be the largest single factor responsible for the decline of trees on construction sites. Soil compaction should not occur within 10-feet from the face of the trunk of trees no. 17 and 18 or within the tree protection zone for trees to remain.

5.4 Grading Limitations within the Tree Protection Zone

1. Lowering the grade around trees can have an immediate and long-term effect on trees. Typically, most roots are within the top 3-feet of soil, and most of the fine roots active in water and nutrient absorption are in the top 12-inches.

2. Grade changes within the TPZ are not permitted. Tilling, ripping, and compaction within the TPZ should be avoided.

3. Grade changes outside the TPZ shall not significantly alter drainage.

4. Grade changes under specifically approved circumstances shall not allow more than 6 inches of fill soil or allow more than 4 inches of existing soil to be removed from natural grade, unless mitigated.

5. Grade fills over 6-inches or impervious overlay shall incorporate an approved permanent aeration system, permeable material, or other approved mitigation.

6. Grade cuts exceeding 4-inches shall incorporate retaining walls or an appropriate transition equivalent.

7. Roots with diameters of 2-inches or greater should not be damaged or cut without prior assessment of the Project Arborist. All tools shall be sanitized in between cuts. Materials commonly used to sterilize tools include bleach (10 percent solution) or Lysol. An hourly rate shall be charged for these inspections.

6.0 Conclusions

General and Encroachment Conclusions

In my professional opinion, the project may proceed if the following conditions are met:

1. The oaks and non-oak trees (Table 1) proposed for retention should be less than significantly impacted by the grading and proposed landscaping; however, they will need to be preserved throughout the duration of the project. They should be preserved by using Type I fencing with plywood as specified in Table 1 to provide protection during the construction process.

2. The existing concrete, asphalt, landscape, and soil should be carefully removed so that the roots of the oaks, and non-oak trees (Table 1) are not disturbed. The proposed construction does not involve lowering and raising the grade within the tree protection zone of the oaks.

3. If any exposed roots at the site of the oaks and non-oak trees are encountered, they should remain and should be covered with burlap, carpet remnants or other material that may be kept moist until soil can be replaced.

4. This report is part of the set of plans given to the contractor. The contractor should be familiar with the specific instructions and responsibilities pertaining to protected trees. It is recommended that a professional arborist be retained and meet with the contractor and his personnel prior to commencement of the project.

7.0 Mitigation Plan

14 protected oak trees are proposed for removal due to the proposed construction and the remaining 16 oaks are to be preserved and protected throughout the duration of the project. Generally, the mitigation for removing protected trees is 3:1 replacement ratio: (2)-24” box and (1)-36” box tree (this is the standard used for oak and landmark trees). We took into consideration the feasibility of transplanting the oak trees proposed for removal, especially oak trees no. 33, 82, 96, and 97. Not all the oaks are in good condition or good candidates for transplanting. For example, oak tree number 96 is in fair condition and 97 is in poor condition. These trees health are already compromised, which reduces their chances of long-term post-transplanting success. Furthermore, transplanting is not recommended for this specific project due to the significant root loss that would occur to these trees, sloping topography, and the uncertainty that the trees will survive even if appropriate care is taken during the pre- and post-transplanting process.

The project proposes 45 mitigation oaks: (29) 24-inch box and (16) 36-inch box, to be planted throughout the subject property to offset the loss of the removed oak trees.

8.0 Recommendations

1. The contractor should be familiar with the specific instructions and responsibilities pertaining to protected trees.

2. The oaks and non-oak trees (Table 1) proposed for retention should be less than significantly impacted by the grading and proposed landscaping; however, they will need to be preserved throughout the duration of the project. They should be preserved by using Type I fencing with plywood as specified in Table 1 to provide protection during the construction process

3. The existing concrete, asphalt, landscape and soil should be carefully removed so that the roots of the oaks and non-oak trees (Table 1) are not disturbed. The proposed construction does not involve lowering and raising the grade within the tree protection zone of the oaks

4. If any exposed roots at the site of the oaks and non-oak trees are encountered, they should remain and should be covered with burlap, carpet remnants or other material that may be kept moist until soil can be replaced.

5. Roots with diameters of 2-inches or greater should not be damaged or cut without prior assessment of the Project Arborist. An hourly rate shall be charged for these inspections. Roots should be flush-cut with hand pruners, hand loppers, and/or handsaw (as appropriate) for roots 2 inch or greater in diameter. All tools shall be sanitized in between cuts. Materials commonly used to sterilize tools include bleach (10 percent solution) or Lysol.

6. All pruning for trees to be protected should be performed by a qualified tree trimmer and should be consistent with ANSI A300 Standards - Part I Pruning, and the most recent edition of the International Society of Arboriculture Best Management Practices for Tree Pruning. All tools shall be sanitized prior to and in between cuts when pruning the tree. Materials commonly used to sterilize tools include bleach (10 percent solution) or Lysol.

7. Protected oak trees, except that are dead, should not be removed until approval is granted by the City of Thousand Oaks.

8. If additional site inspections by a Project Arborist are required, an hourly rate is charged.

Fenced enclosures should be erected around trees to be protected. This should achieve three primary goals:

(1) Keep crowns and branching structure clear from contact by equipment, materials, and activities.
(2) Preserve roots and soil condition in an intact and non-compacted state.
(3) Identify the Tree Protection Zone in which no soil disturbance is permitted, and activities are restricted, unless otherwise approved by the Project Arborist.

A 'Warning' sign should be prominently displayed on each protective enclosure. The sign will be a minimum of 8.5 inches x 11 inches and clearly state the following:

TREE PROTECTION ZONE
This Fence Shall Not be Removed

A Type I Tree Protection Fence should be preserved throughout the duration of the project. The fences should enclose the area under the canopy drip line or TPZ as specified in Table 1.

9.0 Definitions

1. Basal flair or root crown means the tree trunk where it emerges from the root system and flairs out to create the base of the tree.

2. Canopy means the area of a tree that consists primarily of branches and leaves.

3. Drip line means the outermost area of the tree canopy (leafy area of tree).

4. Root Protection Zone means the area within a circle with a radius equal to the greatest distance from the trunk to any overhanging foliage in the tree canopy.

5. Diameter at Breast Height (DBH) or Diameter at Standard Height means the diameter of the perimeter tree trunk at 4.5 feet (or 54 inches) above natural grade level. The diameter may be calculated by using the following formula: DBH = circumference at 4.5 feet x 3.142 (D=C x Pi).

6. Disturbance refers to all of the various activities from construction or development that may damage trees.

7. Drip line area means the area within X distance from the trunk of a tree, measured from the perimeter of the trunk of the tree at 54 inches above natural grade, where X equals a distance ten times the diameter of the trunk at 54 inches above natural grade.

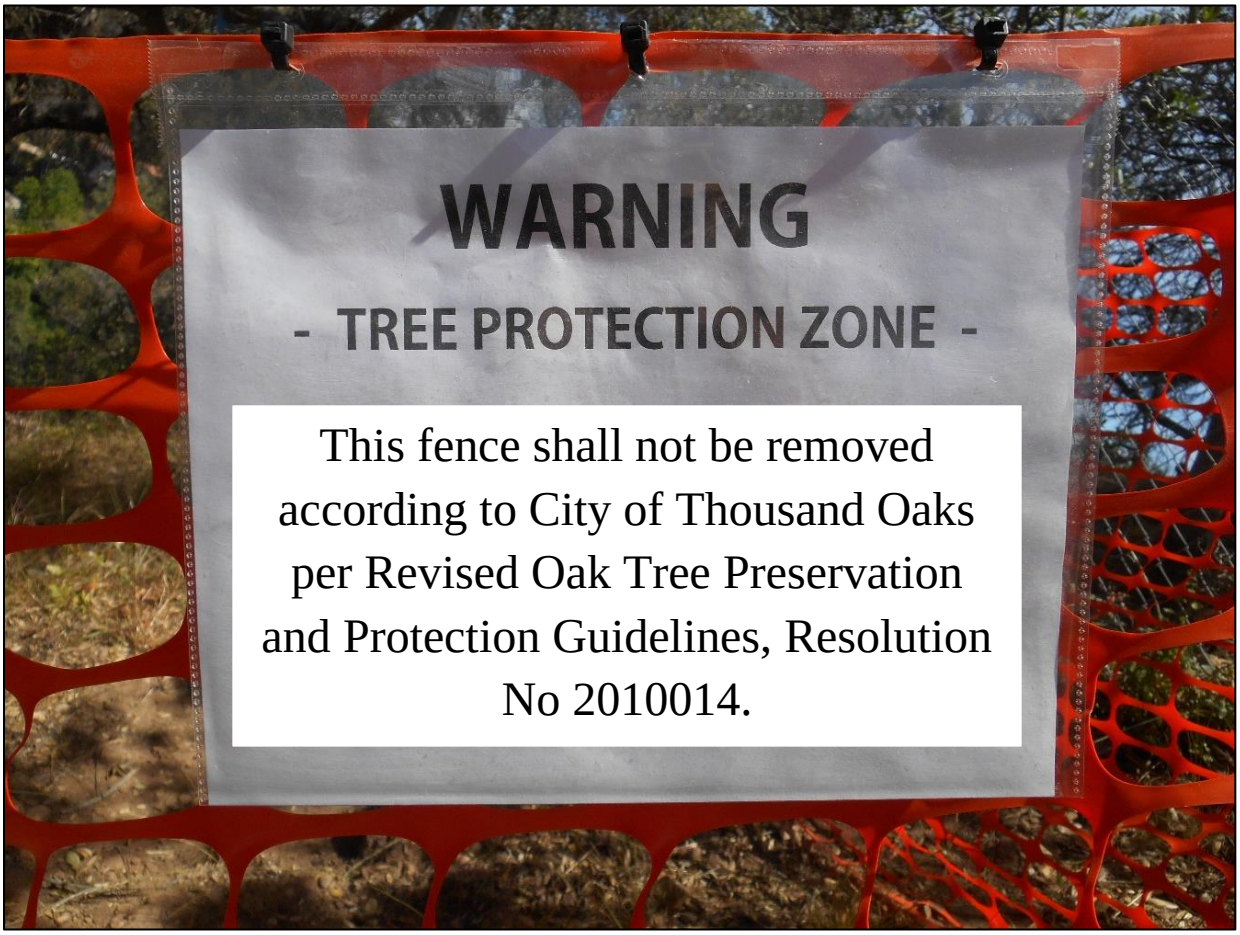
8. Excessive Pruning means: removing in excess, one-fourth (25 percent) or greater, of the functioning leaf, stem or root area. Pruning in excess of 25 percent is injurious to the tree and is a prohibited act. Excessive pruning typically results in the tree appearing as a ‘bonsai’, ‘lion’s-tailed’, ‘lolly-popped’ or overly thinned.

9. Root pruning may include the cutting of any root 2 inches or greater in diameter and/or severing in excess of 25 percent of the roots. Roots can only be pruned outside the drip line.

10. Structural defect means any structural weakness or deformity of a tree or its parts. A tree with a structural defect can be verified to be hazardous by a certified arborist.

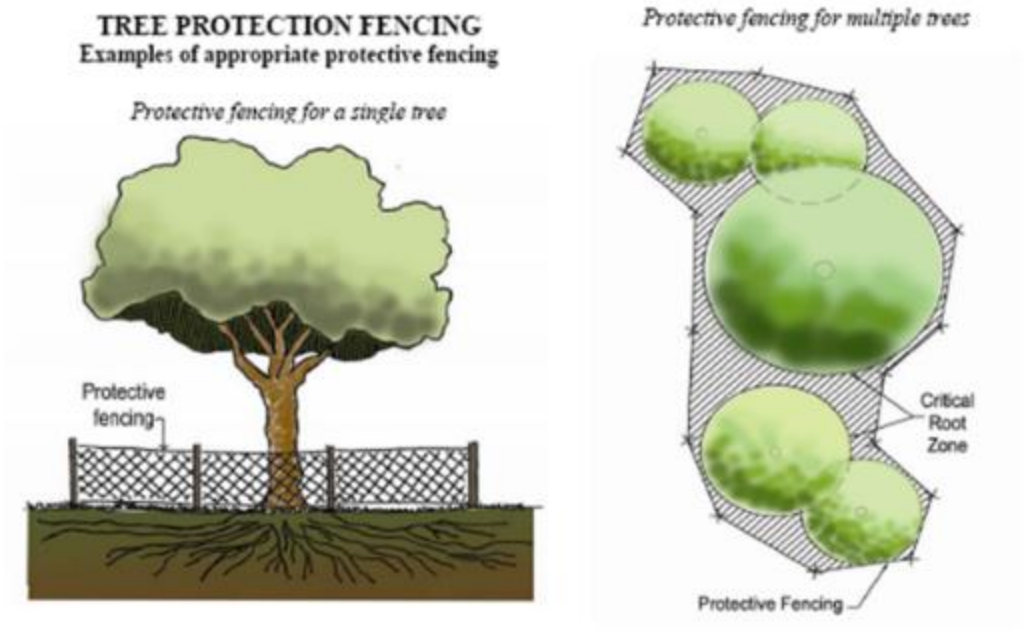
Fencing

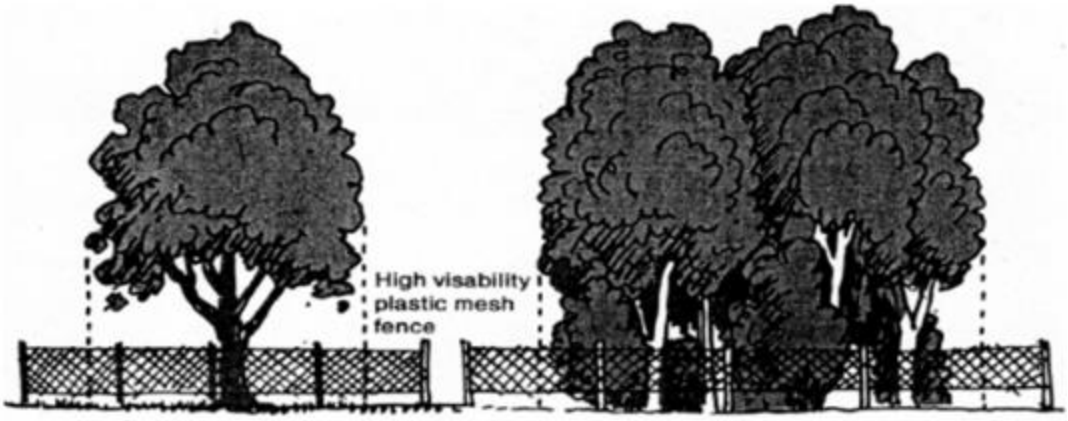
The fence should enclose the area under the canopy drip line or TPZ of the tree to be saved throughout the life of the project, or until final improvement work within the area is required, typically near the end of the project. Tree fencing should be erected before demolition, grading or construction begins.



WARNING SIGN POSTED TO FENCING

This warning sign shall be posted to the fencing. A warning sign shall be prominently displayed on the fence. The sign shall be a minimum of 8.5 x 11 inches and clearly state: WARNING - Tree Protection Zone - This fence shall not be removed according to City of Thousand Oaks per Revised Oak Tree Preservation and Protection Guidelines, Resolution No 2010014. For illustration purposes only





Type I Tree Protection Fencing encloses a partial area of the canopy dripline. The fencing shall enclose the area under the canopy to be saved throughout the life of the project, or until final improvement work within the area is required, typically near the end of the project. Contractor is responsible for protecting roots.

For illustration purposes only.

Tree photo not taken from current site. For illustration purposes only.

Example of Type I fencing underneath the tree canopy. The fencing shall enclose the area under the canopy to be saved throughout the life of the project. Contractor is responsible for protecting roots.

Example of Type I fencing outside the tree canopy. The fencing shall enclose the area outside the canopy to be saved throughout the life of the project. Contractor is responsible for protecting roots. This applies to trees #63, #64, #89, #100, #101, and #108.

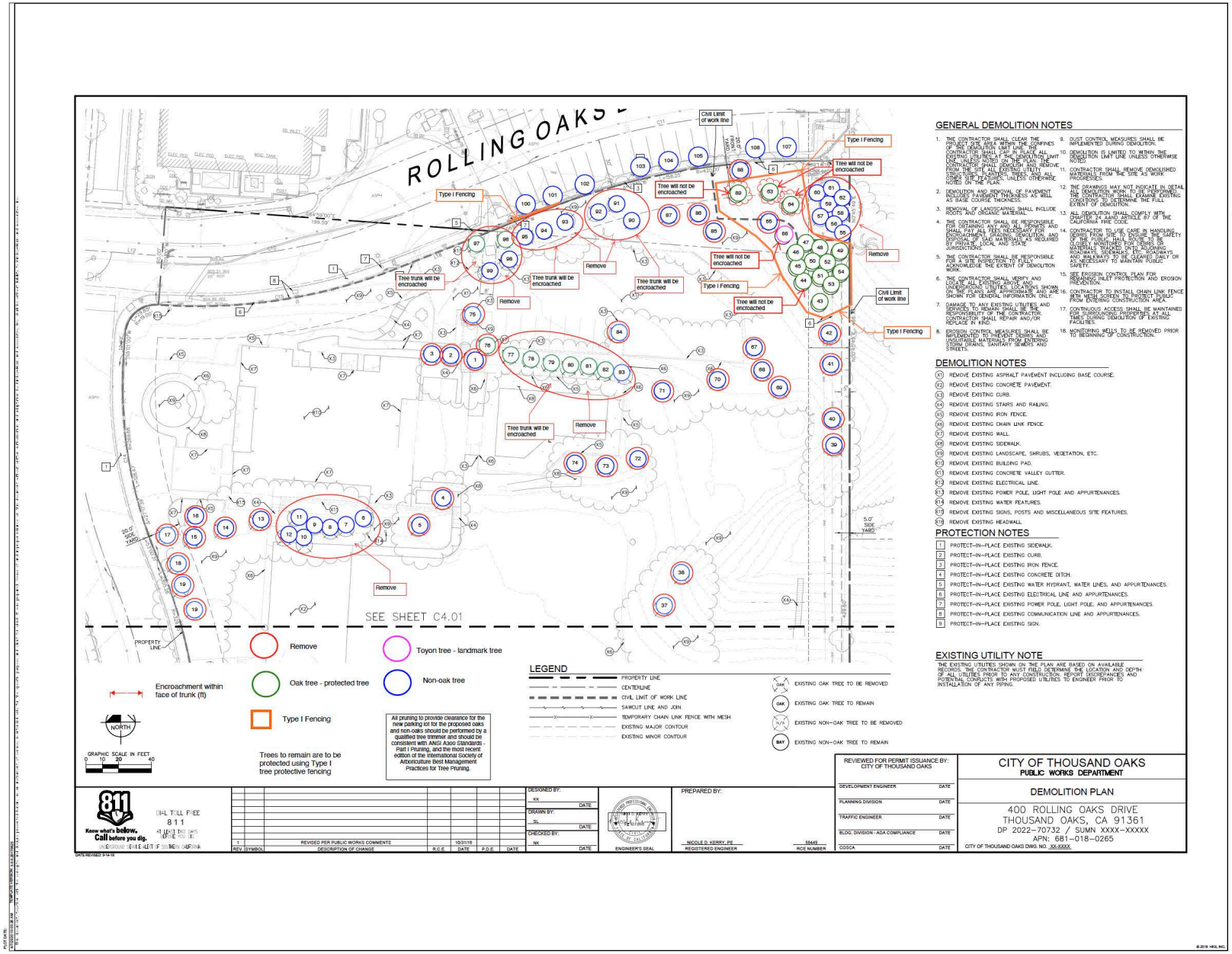
No Dumping Allowed Around the Protected Tree

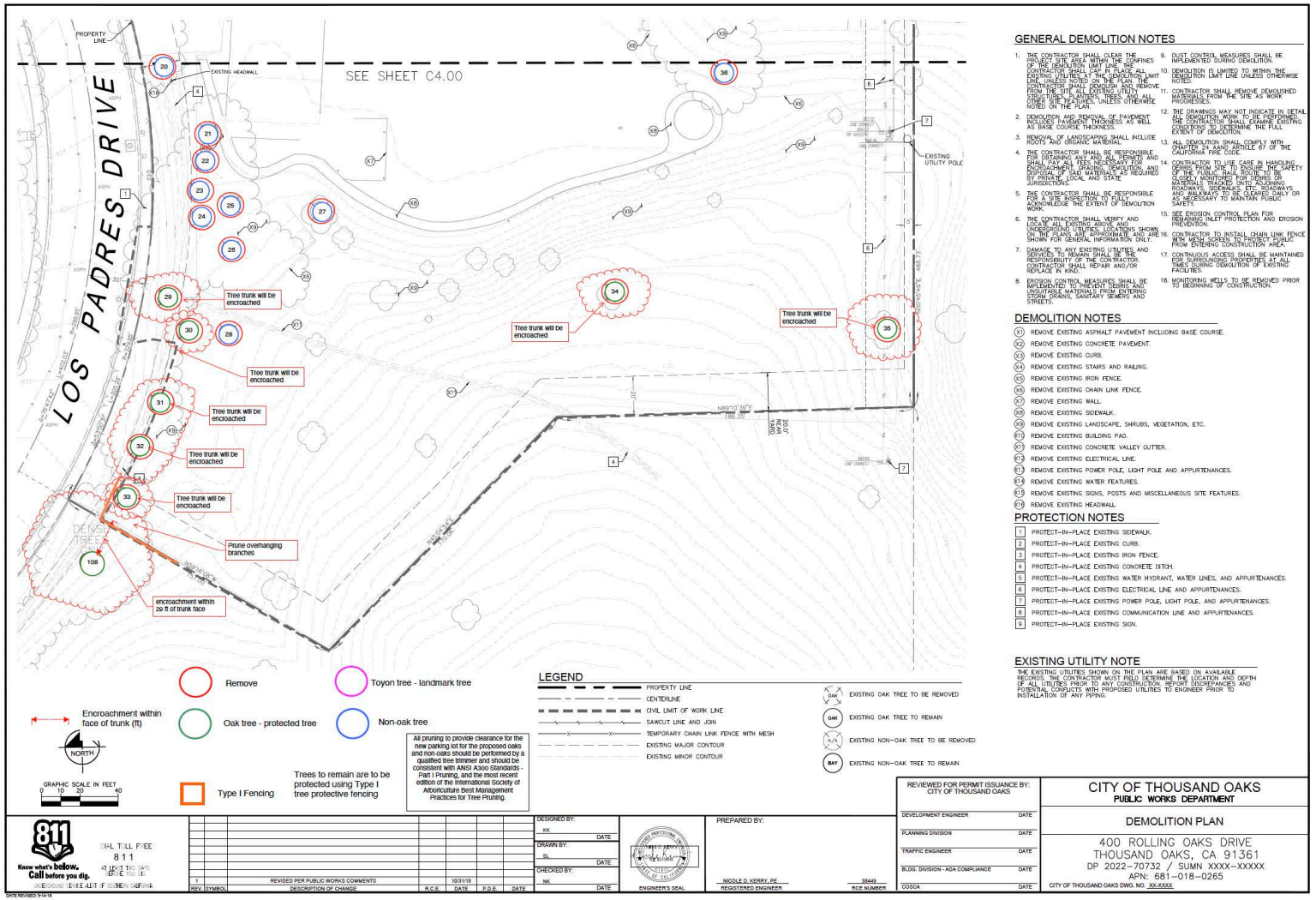
USE OF HERBICIDE IS NOT ALLOWED WITHIN 20 FEET OF THE TREE'S DRIPLINE. Storage or parking vehicles, building materials, refuse, excavated materials spoils or dumping of poisonous materials on or around trees and roots. Poisonous materials include, but are not limited to, paint, petroleum products, concrete or stucco mix, dirty water or any other material which may be deleterious to tree health.

Attachment A – Aerial Image

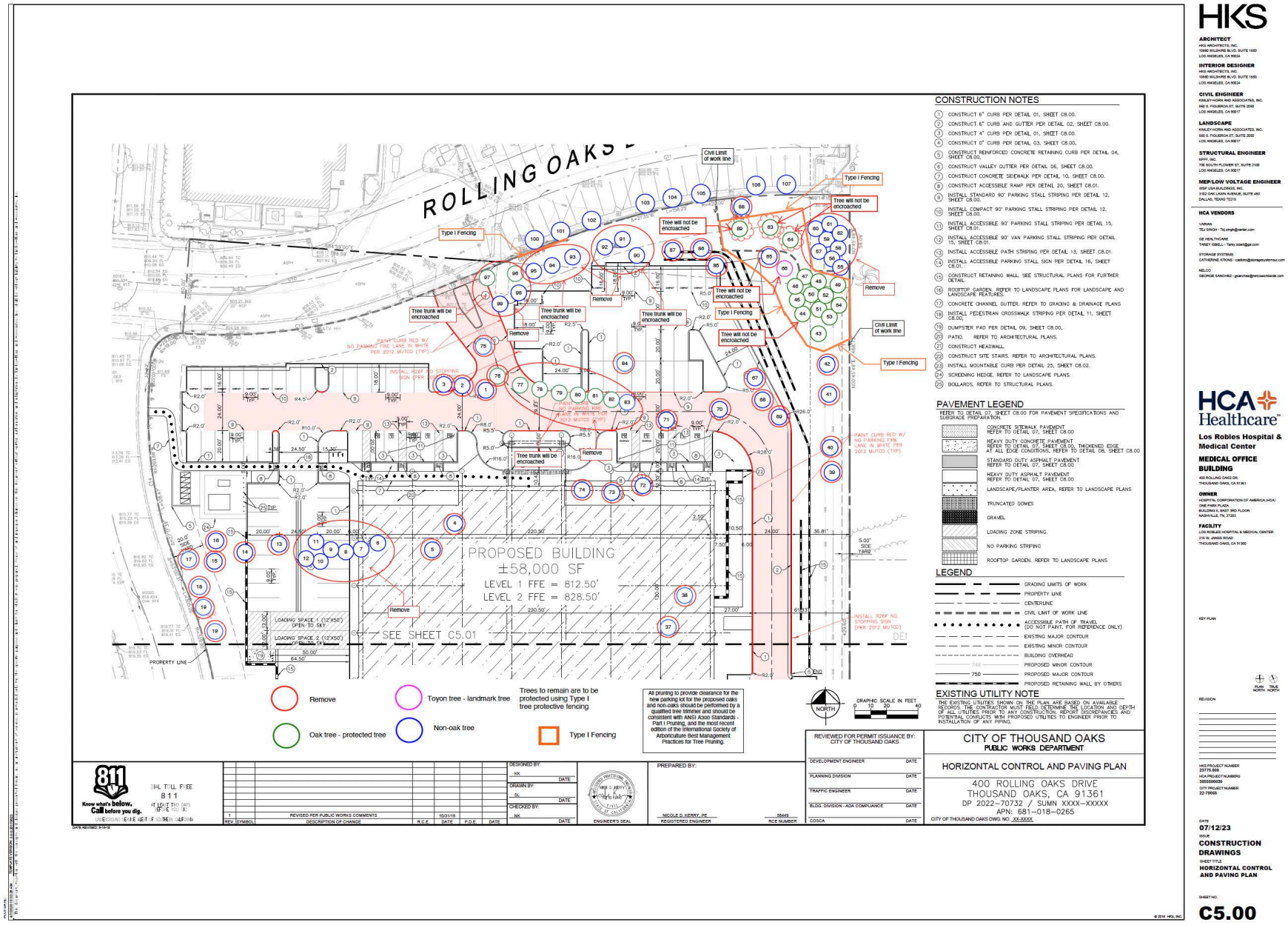
Figure 1. Google Map Aerial of subject property as outlined in blue.

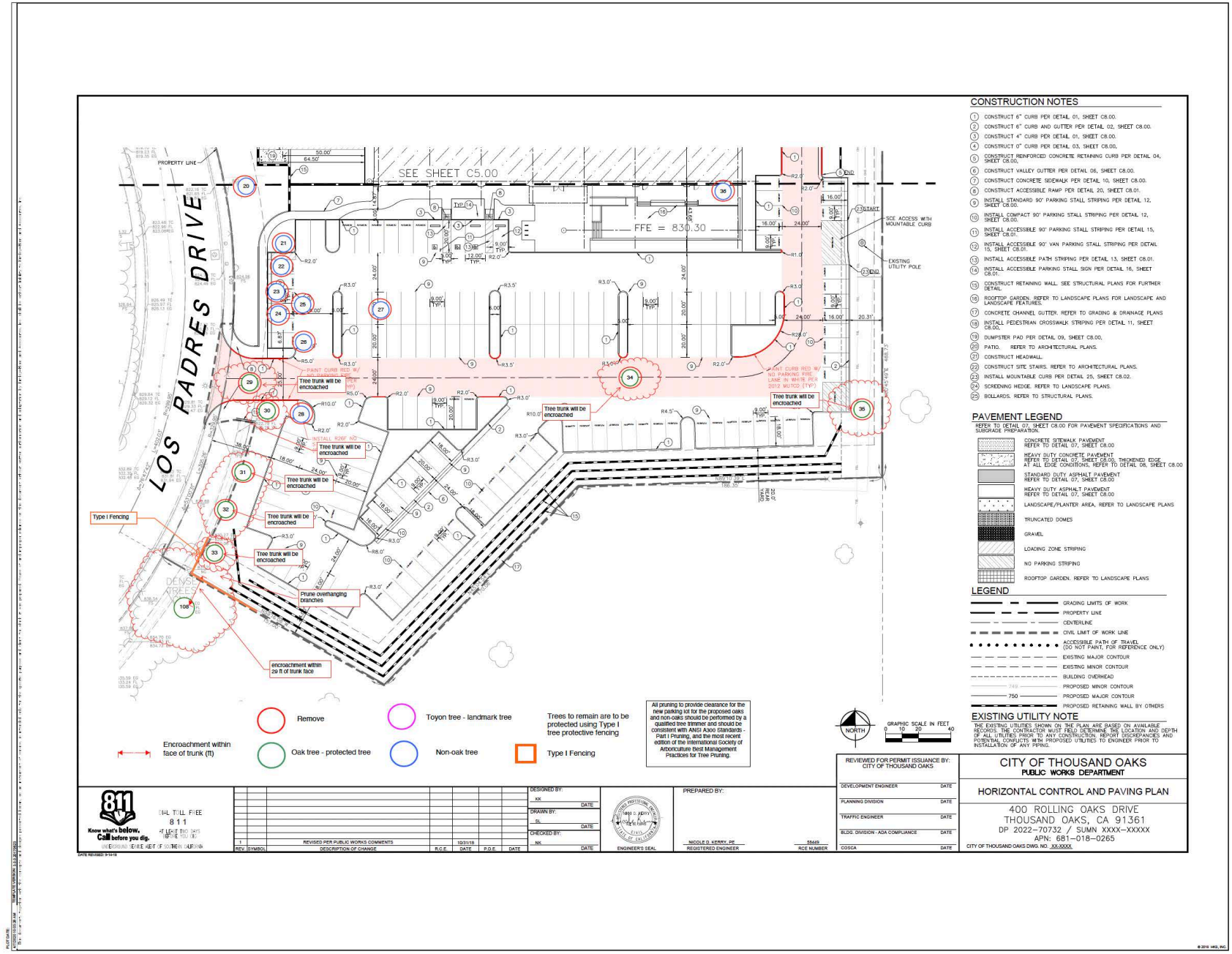
Attachment B – Demolition Plan



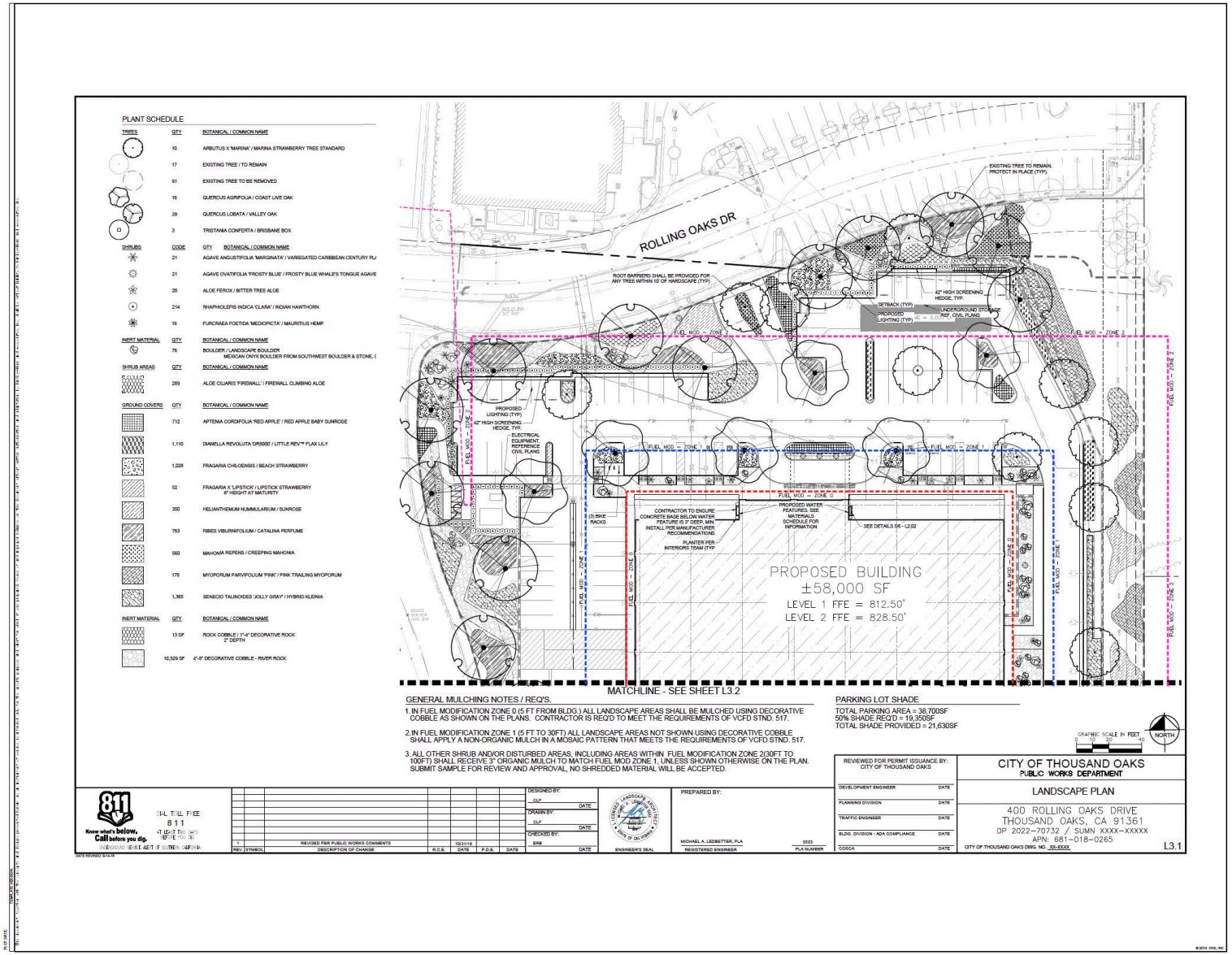

PROPERTY LINE
EXISTING HEADWALL
SEE SHEET C4.00
LOS PADRES DRIVE
EXISTING UTILITY POLE
Tree trunk will be encroached
Prune overhanging branches
encroachment within 29 ft of trunk face
DENSE TREE
Remove
Toyon tree - landmark tree
Encroachment within face of trunk (ft)
Oak tree - protected tree
Non-oak tree
NORTH
GRAPHIC SCALE IN FEET
0 10 20 40
Type I Fencing
Trees to remain are to be protected using Type I tree protective fencing
All pruning to provide clearance for the new parking lot for the proposed oaks and non-oaks should be performed by a qualified tree trimmer and should be consistent with ANSI A300 Standards - Part I Pruning, and the most recent edition of the International Society of Arboriculture Best Management Practices for Tree Pruning.
LEGEND
PROPERTY LINE
CENTERLINE
CIVIL LIMIT OF WORK LINE
SAWCUT LINE AND JOIN
TEMPORARY CHAIN LINK FENCE WITH MESH
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING OAK TREE TO BE REMOVED
EXISTING OAK TREE TO REMAIN
EXISTING NON-OAK TREE TO BE REMOVED
EXISTING NON-OAK TREE TO REMAIN
GENERAL DEMOLITION NOTES
1. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE AREA WITHIN THE CONFINES OF THE DEMOLITION LIMIT LINE. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WITHIN THE DEMOLITION LIMIT LINE, UNLESS NOTED ON THE PLAN. THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITY STRUCTURES, PLANTERS, TREES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN.
2. DEMOLITION AND REMOVAL OF PAVEMENT INCLUDES PAVEMENT THICKNESS AS WELL AS BASE COURSE THICKNESS.
3. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND HAULING OF SOIL MATERIALS AS REQUIRED BY FEDERAL, LOCAL, AND STATE JURISDICTIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF DEMOLITION WORK.
6. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL INFORMATION ONLY.
7. DAMAGE TO EXISTING UTILITIES AND SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
8. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAINS, SANITARY SEWERS AND STREETS.
9. DUST CONTROL MEASURES SHALL BE IMPLEMENTED DURING DEMOLITION.
10. DEMOLITION IS LIMITED TO WITHIN THE DEMOLITION LIMIT LINE UNLESS OTHERWISE NOTED.
11. CONTRACTOR SHALL REMOVE DEMOLISHED MATERIALS FROM THE SITE AS WORK PROGRESSES.
12. THE DRAWINGS MAY NOT INDICATE IN DETAIL ALL DEMOLITION WORK TO BE PERFORMED. THE CONTRACTOR SHALL EXAMINE EXISTING CONDITIONS TO DETERMINE THE FULL EXTENT OF DEMOLITION.
13. ALL DEMOLITION SHALL COMPLY WITH CHAPTER 33 AND ARTICLE 87 OF THE CALIFORNIA FIRE CODE.
14. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC AND PROPERTY BY CLOSELY MONITORING DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ROADWAYS AND WALKWAYS TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
15. SEE EROSION CONTROL PLAN FOR REMAINING INLET PROTECTION AND EROSION PREVENTION.
16. CONTRACTOR TO INSTALL CHAIN LINK FENCE WITH MESH SCREEN TO PROTECT PUBLIC FROM ENTERING CONSTRUCTION AREA.
17. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF EXISTING FACILITIES.
18. MONITORING WELLS TO BE REMOVED PRIOR TO BEGINNING OF CONSTRUCTION.
DEMOLITION NOTES
X1 REMOVE EXISTING ASPHALT PAVEMENT INCLUDING BASE COURSE.
X2 REMOVE EXISTING CONCRETE PAVEMENT.
X3 REMOVE EXISTING CURB.
X4 REMOVE EXISTING STAIRS AND RAILING.
X5 REMOVE EXISTING IRON FENCE.
X6 REMOVE EXISTING CHAIN LINK FENCE.
X7 REMOVE EXISTING WALL.
X8 REMOVE EXISTING SIDEWALK.
X9 REMOVE EXISTING LANDSCAPE, SHRUBS, VEGETATION, ETC.
X10 REMOVE EXISTING BUILDING PAD.
X11 REMOVE EXISTING CONCRETE VALLEY GUTTER.
X12 REMOVE EXISTING ELECTRICAL LINE.
X13 REMOVE EXISTING POWER POLE, LIGHT POLE AND APPURTENANCES.
X14 REMOVE EXISTING WATER FEATURES.
X15 REMOVE EXISTING SIGNS, POSTS AND MISCELLANEOUS SITE FEATURES.
X16 REMOVE EXISTING HEADWALL.
PROTECTION NOTES
1 PROTECT-IN-PLACE EXISTING SIDEWALK.
2 PROTECT-IN-PLACE EXISTING CURB.
3 PROTECT-IN-PLACE EXISTING IRON FENCE.
4 PROTECT-IN-PLACE EXISTING CONCRETE DITCH.
5 PROTECT-IN-PLACE EXISTING WATER HYDRANT, WATER LINES, AND APPURTENANCES.
6 PROTECT-IN-PLACE EXISTING ELECTRICAL LINE AND APPURTENANCES.
7 PROTECT-IN-PLACE EXISTING POWER POLE, LIGHT POLE, AND APPURTENANCES.
8 PROTECT-IN-PLACE EXISTING COMMUNICATION LINE AND APPURTENANCES.
9 PROTECT-IN-PLACE EXISTING SIGN.
EXISTING UTILITY NOTE
THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.
811 Know what's below. Call before you dig. DIAL TOLL FREE 811 AT LEAST TWO DAYS BEFORE YOU DIG. UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
REVISED PER PUBLIC WORKS COMMENTS 10/31/18
DESIGNED BY: KK DATE
DRAWN BY: SL DATE
CHECKED BY: NK DATE
ENGINEER'S SEAL
PREPARED BY:
NICOLE D. KERRY, PE REGISTERED ENGINEER
55449 RCE NUMBER
REVIEWED FOR PERMIT ISSUANCE BY: CITY OF THOUSAND OAKS
DEVELOPMENT ENGINEER DATE
PLANNING DIVISION DATE
TRAFFIC ENGINEER DATE
BLDG. DIVISION - ADA COMPLIANCE DATE
COSCA DATE
CITY OF THOUSAND OAKS
PUBLIC WORKS DEPARTMENT
DEMOLITION PLAN
400 ROLLING OAKS DRIVE
THOUSAND OAKS, CA 91361
DP 2022-70732 / SUMN XXXX-XXXXX
APN: 681-018-0265
CITY OF THOUSAND OAKS DWG. NO. XX-XXXX
HKS
ARCHITECT
INTERIOR DESIGNER
CIVIL ENGINEER
LANDSCAPE
STRUCTURAL ENGINEER
MEP/LOW VOLTAGE ENGIN
HCA VENDORS
HCA Healthcare
Los Robles Hospita
Medical Center
MEDICAL OFFICE BUILDING
OWNER
FACILITY
KEY PLAN
REVISION
HKS PROJECT NUMBER 22775.000
HCA PROJECT NUMBERS 3055500030
CITY PROJECT NUMBER 22-70065
DATE 07/12/23
ISSUE CONSTRUCTION DRAWINGS
SHEET TITLE DEMOLITION PLAN
SHEET NO. C4.01
© 2018 HKS, INC.

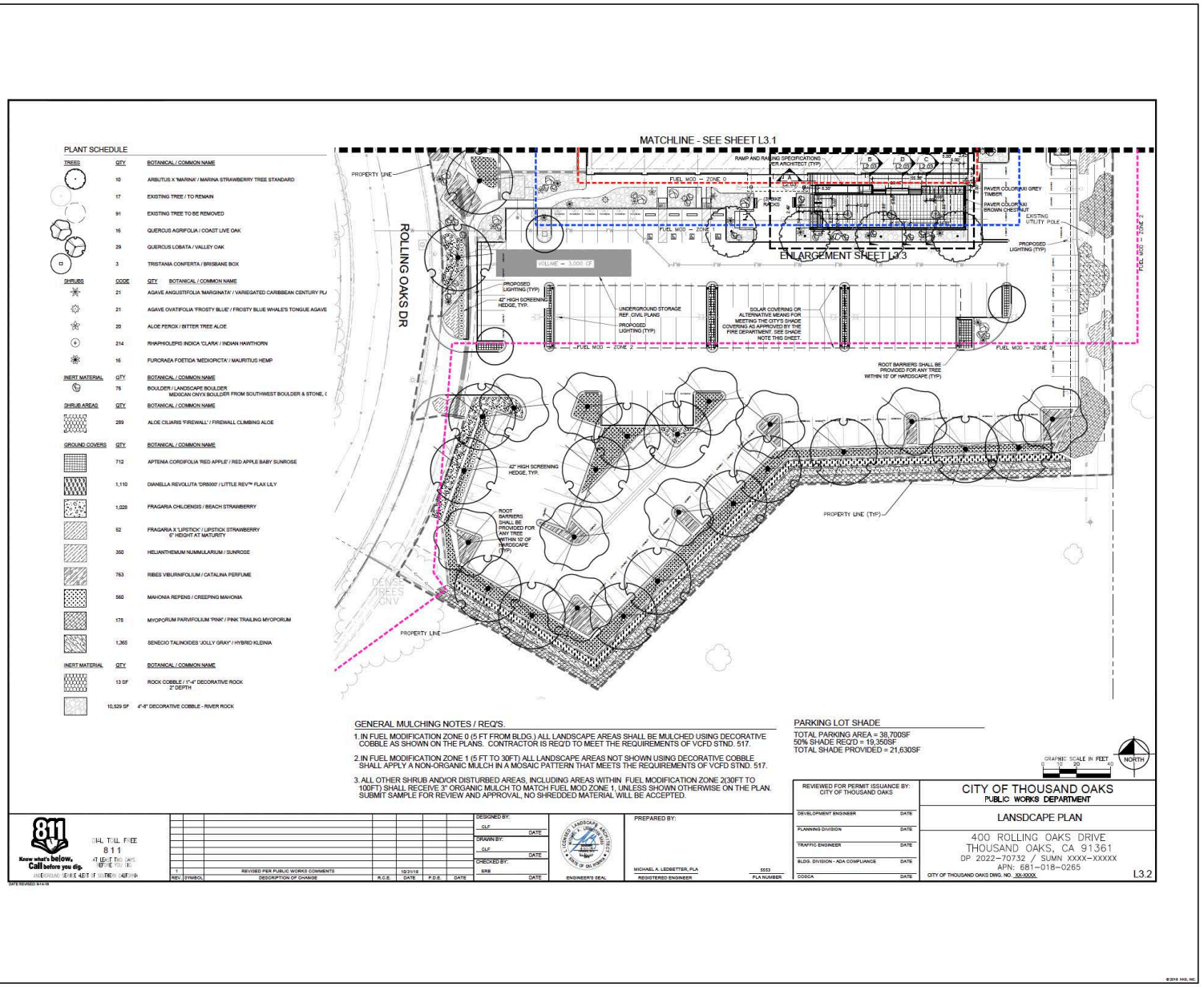
Attachment C – Site Plan and Limits of Work




LOS PADRES DRIVE
PROPERTY LINE
SEE SHEET C5.00
FFE = 830.30
Tree trunk will be encroached
Type I Fencing
Prune overhanging branches
encroachment within 29 ft of trunk face
Remove
Oak tree - protected tree
Toyon tree - landmark tree
Non-oak tree
Encroachment within face of trunk (ft)
Trees to remain are to be protected using Type I tree protective fencing
Type I Fencing
All pruning to provide clearance for the new parking lot for the proposed oaks and non-oaks should be performed by a qualified tree trimmer and should be consistent with ANSI A300 Standards - Part I Pruning, and the most recent edition of the International Society of Arboriculture Best Management Practices for Tree Pruning.
CONSTRUCTION NOTES
1 CONSTRUCT 6" CURB PER DETAIL 01, SHEET C8.00.
2 CONSTRUCT 6" CURB AND GUTTER PER DETAIL 02, SHEET C8.00.
3 CONSTRUCT 4" CURB PER DETAIL 01, SHEET C8.00.
4 CONSTRUCT 0" CURB PER DETAIL 03, SHEET C8.00.
5 CONSTRUCT REINFORCED CONCRETE RETAINING CURB PER DETAIL 04, SHEET C8.00.
6 CONSTRUCT VALLEY GUTTER PER DETAIL 06, SHEET C8.00.
7 CONSTRUCT CONCRETE SIDEWALK PER DETAIL 10, SHEET C8.00.
8 CONSTRUCT ACCESSIBLE RAMP PER DETAIL 20, SHEET C8.01.
9 INSTALL STANDARD 90° PARKING STALL STRIPING PER DETAIL 12, SHEET C8.00.
10 INSTALL COMPACT 90° PARKING STALL STRIPING PER DETAIL 12, SHEET C8.00.
11 INSTALL ACCESSIBLE 90° PARKING STALL STRIPING PER DETAIL 15, SHEET C8.01.
12 INSTALL ACCESSIBLE 90° VAN PARKING STALL STRIPING PER DETAIL 15, SHEET C8.01.
13 INSTALL ACCESSIBLE PATH STRIPING PER DETAIL 13, SHEET C8.01.
14 INSTALL ACCESSIBLE PARKING STALL SIGN PER DETAIL 16, SHEET C8.01.
15 CONSTRUCT RETAINING WALL. SEE STRUCTURAL PLANS FOR FURTHER DETAIL.
16 ROOFTOP GARDEN. REFER TO LANDSCAPE PLANS FOR LANDSCAPE AND LANDSCAPE FEATURES.
17 CONCRETE CHANNEL GUTTER. REFER TO GRADING & DRAINAGE PLANS
18 INSTALL PEDESTRIAN CROSSWALK STRIPING PER DETAIL 11, SHEET C8.00.
19 DUMPSTER PAD PER DETAIL 09, SHEET C8.00.
20 PATIO. REFER TO ARCHITECTURAL PLANS.
21 CONSTRUCT HEADWALL.
22 CONSTRUCT SITE STAIRS. REFER TO ARCHITECTURAL PLANS.
23 INSTALL MOUNTABLE CURB PER DETAIL 25, SHEET C8.02.
24 SCREENING HEDGE. REFER TO LANDSCAPE PLANS.
25 BOLLARDS. REFER TO STRUCTURAL PLANS.
PAVEMENT LEGEND
REFER TO DETAIL 07, SHEET C8.00 FOR PAVEMENT SPECIFICATIONS AND SUBGRADE PREPARATION.
CONCRETE SIDEWALK PAVEMENT. REFER TO DETAIL 07, SHEET C8.00
HEAVY DUTY CONCRETE PAVEMENT. REFER TO DETAIL 07, SHEET C8.00, THICKENED EDGE AT ALL EDGE CONDITIONS. REFER TO DETAIL 08, SHEET C8.00
STANDARD DUTY ASPHALT PAVEMENT. REFER TO DETAIL 07, SHEET C8.00
HEAVY DUTY ASPHALT PAVEMENT. REFER TO DETAIL 07, SHEET C8.00
LANDSCAPE/PLANTER AREA. REFER TO LANDSCAPE PLANS
TRUNCATED DOMES
GRAVEL
LOADING ZONE STRIPING
NO PARKING STRIPING
ROOFTOP GARDEN. REFER TO LANDSCAPE PLANS
LEGEND
GRADING LIMITS OF WORK
PROPERTY LINE
CENTERLINE
CIVIL LIMIT OF WORK LINE
ACCESSIBLE PATH OF TRAVEL (DO NOT PAINT, FOR REFERENCE ONLY)
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
BUILDING OVERHEAD
PROPOSED MINOR CONTOUR
PROPOSED MAJOR CONTOUR
PROPOSED RETAINING WALL BY OTHERS
EXISTING UTILITY NOTE
THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.
GRAPHIC SCALE IN FEET
REVIEWED FOR PERMIT ISSUANCE BY: CITY OF THOUSAND OAKS
DEVELOPMENT ENGINEER DATE
PLANNING DIVISION DATE
TRAFFIC ENGINEER DATE
BLDG. DIVISION - ADA COMPLIANCE DATE
COSCA DATE
CITY OF THOUSAND OAKS
PUBLIC WORKS DEPARTMENT
HORIZONTAL CONTROL AND PAVING PLAN
400 ROLLING OAKS DRIVE
THOUSAND OAKS, CA 91361
DP 2022-70732 / SUMN XXXX-XXXXX
APN: 681-018-0265
CITY OF THOUSAND OAKS DWG. NO. XX-XXXX
DESIGNED BY: KK
DRAWN BY: SL
CHECKED BY: NK
PREPARED BY:
NICOLE D. KERRY, PE
REGISTERED ENGINEER
55449
RCE NUMBER
ENGINEER'S SEAL
REVISED PER PUBLIC WORKS COMMENTS 10/31/18
DIAL TOLL FREE 811
Know what's below. Call before you dig.
HKS
ARCHITECT
INTERIOR DESIGNER
CIVIL ENGINEER
LANDSCAPE
STRUCTURAL ENGINEER
MEP/LOW VOLTAGE ENGINEER
HCA VENDORS
HCA Healthcare
Los Robles Hospital & Medical Center
MEDICAL OFFICE BUILDING
OWNER
FACILITY
KEY PLAN
REVISION
HKS PROJECT NUMBER 23775.000
HCA PROJECT NUMBER 3655500030
CITY PROJECT NUMBER 22-70065
DATE 07/12/23
ISSUE CONSTRUCTION DRAWINGS
SHEET TITLE HORIZONTAL CONTROL AND PAVING PLAN
SHEET NO. C5.01

Attachment D – Landscape Plan





HKS

ARCHITECT
HKS ARCHITECTS, INC.
10960 WILSHIRE BLVD. SUITE 1850
LOS ANGELES, CA 90024

INTERIOR DESIGNER
HKS ARCHITECTS, INC.
10960 WILSHIRE BLVD. SUITE 1850
LOS ANGELES, CA 90024

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA ST, SUITE 2050
LOS ANGELES, CA 90017

LANDSCAPE
KIMLEY-HORN AND ASSOCIATES, INC.
660 S. FIGUEROA ST, SUITE 2050
LOS ANGELES, CA 90017

STRUCTURAL ENGINEER
KPFF, INC.
700 SOUTH FLOWER ST, SUITE 2100
LOS ANGELES, CA 90017

MEP/LOW VOLTAGE ENGINEER
WSP USA BUILDINGS, INC.
3102 OAK LAWN AVENUE, SUITE 450
DALLAS, TEXAS 75219

HCA VENDORS
VARIAN
TEJ SINGH - Tej.singh@varian.com
GE HEALTHCARE
TARSY ISSELL - Tarsy.Isbell@ge.com
STORAGE SYSTEMS
CATHERINE ATKINS - cadkins@storagesystemsusa.com
KELLO
GEORGE SANCHEZ - gsanchez@kelloworldwide.com

HCA Healthcare

Los Robles Hospital & Medical Center

MEDICAL OFFICE BUILDING
400 ROLLING OAKS DR.
THOUSAND OAKS, CA 91361

OWNER
HOSPITAL CORPORATION OF AMERICA (HCA)
ONE PARK PLAZA
BUILDING II, EAST 3RD FLOOR
NASHVILLE, TN, 37203

FACILITY
LOS ROBLES HOSPITAL & MEDICAL CENTER
215 W. JANSS ROAD
THOUSAND OAKS, CA 91360

KEY PLAN

PLAN NORTH
TRUE NORTH

REVISION

HKS PROJECT NUMBER
23176.000
HCA PROJECT NUMBERS
0000000000
CITY PROJECT NUMBER
22-70000

DATE
07/12/2023
ISSUE
CONSTRUCTION DRAWINGS
SHEET TITLE
LANDSCAPE PLAN
SHEET NO.
L3.2

Attachment E – Site Photo

All pruning to provide clearance for the proposed parking lot for oak trees and non-oak trees should be performed by a qualified tree trimmer and should be consistent with ANSI A300 Standards - Part I Pruning, and the most recent edition of the International Society of Arboriculture Best Management Practices for Tree Pruning.

Report Prepared by:

Michael Green

This arborist report is prepared by Michael Green. He is 2nd generation arborist and has over 15 years of experience in the tree and landscape industry. His background includes hands-on experience in tree care, tree protection during construction, plant health care, tree risk assessment, tree roots, landscape maintenance, landscape construction, and irrigation design and water management. His problem-solving approach makes him an excellent choice as a technical consultant or expert witness on a wide variety of tree and landscape related issues. He has served as an expert witness, technical consultant, or forensic investigator for tree related issues with trial experience. He has a bachelor's of science degree in agribusiness from California State Polytechnic University, San Luis Obispo.

Certifications, Licenses, and Professional Associations

Registered Consulting Arborist No.: 602, American Society of Consulting Arborists (ASCA)
Consulting Academy Coach 2017, American Society of Consulting Arborist (ASCA
Certified Arborist, International Society of Arboriculture (ISA)
Certified Irrigation Auditor (IA)
Licensed California Landscape Contractor (C-27)
California Licensed Pesticide Applicator, (QAL)
Tree Risk Assessment Qualified (ISA)

Assumptions and Limitations

My field methods are evaluated with a 100 percent ground visual survey. No climbing, excavating, coring, boring, sounding of the trunk, or drilling was performed. Trees that require an additional inspection for risk and hazard evaluation beyond the visual ground inspection will be billed under a separate proposal. All inspections are visual ground inspections and are not considered as a risk inspection. No digging, root collar excavation, drilling, coring, or climbing was performed. A risk assessment includes but not be limited to a root collar excavation, climbing the tree, and further examining the upper side of branches and upper trunk and stems. My site examination and the information in this report are limited to the date and time the

inspection occurred. The information in this report was limited to the condition of the trees during my inspection.

Additional inspection(s) require a separate agreement between both parties in writing. Site inspections only provide a "snapshot" of the tree. Changes in environmental conditions such as but not limited to construction, surrounding site changes, flooding, root damage, fires, pruning practices, lack of maintenance, grade changes, and wind can impact the tree's conditions, structure, safety, risk factor, and health, etc. A consulting arborist 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/or below ground under the tree. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for a specified period of time. Likewise, remedial treatment does not guarantee outcome or results. The web provides numerous tree risk assessment sites that offer tips for tree care and detecting and/or identifying potential tree hazards. If the client believes the tree's condition has changed since the date of this inspection, the arborist should be contacted ASAP. Future inspections, canopy inspections, and root collar examinations are under the client's discretion.

Evergreen Arborists Consultants, Inc., its employees, or related companies, makes no guaranties, express or implied to the trees health, risk, hazard, condition, potential for failure or future condition. Evergreen Arborists Consultants, Inc., its employees shall not be liable to client/owner or any other party(s) for loss of property, loss of life, loss of use, loss of profits or income(s), special damages, incidental damages, consequential damages, incidental damages, or damages arising from the failure of inspection(s) or weather conditions. This report is not valid until paid in full. The client shall hold this arborist harmless against any and all claims for injuries to persons or property on the premises.

A consulting arborist is a tree specialist who uses 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. Clients may choose to accept or disregard the recommendations of the arborist or seek additional advice. Any treatment(s), such as pruning and removal of trees, but not limited to, property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. are beyond the scope of this work. This arborist relies and accepts information from his client to be complete and accurate. The client hiring this arborist accepts full responsibility for authorizing the recommended treatment(s) or remedial measure(s) and holds this arborist harmless. Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.