



OAK TREE REPORT ENTRADA SOUTH, VTTM 53295 THE OLD ROAD AND MAGIC MOUNTAIN PARKWAY UNINCORPORATED LOS ANGELES COUNTY

### SUBMITTED TO:

ALEX HERRELL DIRECTOR OF COMMUNTIY DEVELOPMENT FIVE POINT HOLDINGS, LLC 25124 SPRINGFIELD COURT, SUITE 300 VALENCIA, CALIFORNIA 91355

### PREPARED BY:

SCOTT MCALLASTER
ISA CERTIFIED ARBORIST #WE 7011A
ISA QUALIFIED TREE RISK ASSESSOR

### Santa Monica Office

828 Fifth Street, Suite 3 Santa Monica, California 90403 Office: 310.451.4804

### Sierra Madre Office

80 West Sierra Madre Boulevard, #241 Sierra Madre, California 91024 Office: 626.428.5072

www.cycarlberg.com

### OAK TREE REPORT - ENTRADA SOUTH, VTTM 53295, UNINCORPORATED LOS ANGELES COUNTY

### **TABLE OF CONTENTS**

EXECUTIVE SUMMARY	
BACKGROUND AND ASSIGNMENT	1
METHODOLOGY AND DEFINITIONS	2
OBSERVATIONS	3
TABLE 1 – SUMMARY OF INVENTORIED OAK TREES	2
DISCUSSION	8
TABLE 2 – SUMMARY OF OAK TREE IMPACTS	10
TABLE 3 – IMPACTS TO CRITICAL ROOT ZONE (CRZ) AND CANOPY OF ENCROACHMENT OAKS	10
CONCLUSION	11
OAK TREE REPORT RECOMMENDATIONS	11
EXHIBIT A – AERIAL IMAGE OF SUBJECT PROPERTY	14
EXHIBIT B – REDUCED COPY OF OAK TREE IMPACT EXHIBIT & PROTECTION PLAN (9 SHEETS)	15
CERTIFICATION OF PERFORMANCE	24
ARBORIST DISCLOSURE STATEMENT	25
HEALTH AND STRUCTURE GRADE DEFINITIONS	26
RESUME OF UNDERSIGNED ARBORIST	28

### **APPENDICES**

APPENDIX I – OAK TREE INVENTORY FIELD DATA TABLE APPENDIX II – DEAD OAK TREE INVENTORY TABLE APPENDIX III – OAK TREE PHOTOGRAPHS

APPENDIX IV - COUNTY OF LOS ANGELES OAK TREE MANAGEMENT & PRESERVATION GUIDELINES

### **MAPS**

OAK TREE IMPACT EXHIBIT AND PROTECTION PLAN – 9 SHEETS (24" X 36") BACK POCKET



December 22, 2021 (Amended: March 31, 2023)

Alex Herrell
Director of Community Development
Five Point Holdings, LLC
25124 Springfield Court, Suite 300
Valencia, California 91355

Re: Oak Tree Report Amendment - Entrada South, VTTM 53295
Unincorporated Los Angeles County
Oak Tree Permit No.: ROAK-200700018

Dear Mr. Herrell,

This amended oak tree report is provided for your submittal to the County of Los Angeles.

### **EXECUTIVE SUMMARY**

This oak tree report was prepared in accordance with the Los Angeles County Oak Tree Ordinance No. 22.56.2050. Per the ordinance, we inventoried a total of 51 oak trees on and adjacent to the Entrada South project, Vesting Tentative Tract Map (V.T.T.M.) 53295, in the Santa Clarita Valley area of unincorporated Los Angeles County. In addition, we noted numerous dead ordinance-size oak trees on the subject property that are not included in this report. Project improvements will result in the removal of 34 protected oak trees and the encroachment into the Tree Protection Zone<sup>1</sup> (TPZ) of one oak tree. General tree protection recommendations and mitigation measures are included for trees to remain in the area of potential impact.

This report amendment has been prepared in response to being notified by the County Forester that two oak trees, previously thought to have been removed, were located during a site visit. These two oaks were not included in our December 22, 2021, Oak Tree Report. The oaks in question are #156 and #157. The oaks are located north of the newly completed Magic Mountain Parkway extension, just east of Commerce Center Drive (also a new street). The trees are located behind an area that was graded as part of the Magic Mountain

Parkway extension project. These two oaks are proposed for removal as part of the Entrada South project and are added to the mitigation number for Oak Tree Permit No. ROAK-200700018.

Santa Monica Office 828 Fifth Street, Suite 3 Santa Monica, California 90403 Office: 310.451.4804

Sierra Madre Office

www.cycarlberg.com

80 West Sierra Madre Boulevard, #241 Sierra Madre, California 91024 Office: 626.428.5072

Office: 626.428.50

<sup>1</sup> The **Tree Protection Zone (TPZ)** is a specifically defined area within the dripline of an oak tree and extending to a point at least 5 feet outside the dripline or 15 feet from the trunk, whichever distance is greater.



### **BACKGROUND AND ASSIGNMENT**

Entrada South proposes the development of 1,574 residences and 730,000 square feet of mixed-use commercial uses. The mixed-use community would be developed in conjunction with various supporting uses, including a potential school site, parks and open space, a network of roads and trails, and wet and dry utilities.

The proposed community would be located on approximately 380 acres in an unincorporated portion of Los Angeles County that is within the Santa Clarita Valley planning area. The site specifically is located west of Interstate 5 and The Old Road and immediately east of the approved and under construction Mission Village community.

We were retained to visit the property, inventory the protected oak trees, evaluate the potential impacts of construction, make recommendations for the protection of trees to remain, and prepare an Oak Tree Report for submittal to the County of Los Angeles Department of Regional Planning. This report is based on our site visits on June 15 and 18, 2021, and March 25, 2023.

### METHODOLOGY AND DEFINITIONS

The field inventory and report were produced in accordance with the County of Los Angeles' Oak Tree Ordinance. Per the Ordinance, protected oak trees are "any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade,..., any tree that has been provided as a replacement tree." Smaller oak trees that did not meet the protected tree diameter threshold, where found, were not inventoried for this report. Numerous dead oak trees were encountered and are not included in this report.

The following discussion expands on the information summarized in the oak tree inventory field worksheets attached in Appendix I.

Oak trees are field-mapped on the Oak Tree Impact Exhibit and Protection Plan, which illustrates the approximate trunk location, canopy spread, and protected zone for each tree. Oak trees were located by walking the project site and using a base topographic survey and boundary map that was provided by the engineer. Protected oak tree locations and canopies were visually recorded in the field by Carlberg arborists. The full-size, color, Oak Tree Impact Exhibit and Protection Plan is included in the back pocket of this report. Off-site oak trees were included in the inventory when their trunks were immediately adjacent, or when their canopies physically crossed the property boundary.

On-site oak trees were numbered and tagged with an embossed, circular metal tag. Unless otherwise noted on the field sheet, tags were placed on the north side of the trunk. All of the recorded trees exhibit single trunk, or combined trunk diameters that meet the County of Los Angeles' Oak Tree Ordinance for protection<sup>2</sup>. Each inventoried tree was assigned two letter grades, one for health and one for structure. The overall grade takes into consideration the health, structure, and overall aesthetic appeal of the tree form, unique characteristics, and comparison of the tree to the archetype of the species. Health/structure ratings of the trees are based on the definitions provided at the end of this report.

<sup>&</sup>lt;sup>2</sup> Single trunk must equal 8 inches DBH, multiple-trunk trees must equal 12 inches in DBH (additively). 'Heritage' oaks are those with a single trunk DBH of 36 inches or greater.





A multi-trunked tree has more than one trunk originating from a single root system or basal burl. In some cases, the trunks may not appear to be joined, but their direction of growth and orientation to adjacent trunks indicates the presence of a subsurface connection. This can occur when a large tree declines, and the main trunk is removed or decays, or when a fire or mechanical damage destroys a main stem. The basal burl or root crown will often produce new shoots around the perimeter of the former trunk. In some cases, a basal cavity may persist surrounded by smaller trunks. These trunks may, or may not, be obviously connected. It is not always clear whether a tree is multi-trunked or just has several main branches that diverge near ground level. In these cases, the tree is considered multi-trunked if the diverging stems do not exit the ground perpendicularly, but at an angle away from the center of the tree. Oaks with multiple trunks originating from fire-related root or stump sprouting are considered as single trees.

As required by the County Ordinance, trunk diameters were measured at approximately  $4\frac{1}{2}$  feet above the natural grade. This is known as 'diameter at breast height' or DBH. Oak trees often have large lateral branches diverging from the trunk at or near breast height. Measuring a tree of this type at  $4\frac{1}{2}$  feet above natural grade would often result in an inaccurate impression of tree size. For trees that exhibit lateral branching at the established measurement point, the trunk diameter measurement is made at the nearest point where the dimension can be recorded without being impeded by the branches. For multi-trunk trees, the number of trunks and the diameter of each trunk is recorded. Measurements that deviate from the required standard are noted on the field spreadsheet.

### Assessment for "New" In-Growth Oak Trees

While performing the field work, we canvassed the project site to capture any oak trees that may have grown to ordinance size since the last oak tree inventory in June 2019. Most of the site was accessible by vehicle or on foot. In areas where access was prohibited due to topography, we used binoculars to assist with plant identification.

The assessment for "new" in-growth oaks included recordation of the same field data as noted for the encroachment trees. As agreed, we created numerical tags that began with 9501 and generally mapped the trunk locations of <u>new</u> oak trees that have grown to ordinance size since the last oak tree inventory. Photographs of each <u>new</u> ordinance-sized tree were recorded and are included in this report.

### **OBSERVATIONS**

We inventoried 51 trees on and adjacent to the existing parcel. Tree trunks and canopies (driplines) were recorded in the field, from grade, using the topography provided to us by the engineer. The ordinance-size trees were numbered and tagged with an embossed aluminum numbered tag. The locations of the on-site trees are illustrated on the Oak Tree Impact Exhibit and Protection Plan.

The majority of the inventoried oaks onsite or within 200 feet of the proposed impacted areas are valley oaks (*Quercus lobata*), totaling twenty-eight (28) trees. Two (2) coast live oaks (*Q. agrifolia*), 19 scrub oaks (*Q. berberidifolia*) and two (2) *Q. lobata*-berberidifolia hybrids are the remainder of the 51 inventoried oaks. Please see the attached Oak Tree Impact Exhibit & Protection Plan (9 sheets) that illustrates the current project.

Of the 51 ordinance-sized oak trees inventoried for this report, 34 trees are proposed for removal, one tree will potentially have an encroachment into its protected zone, and 16 trees will remain with no impact. Two of the 51 inventoried oak trees (#9 and 12 - both *Q. lobata*) qualify as heritage oak trees based on their trunk diameter. One heritage tree (#9) is proposed to be saved with no impacts or encroachments into its protected zone. One heritage tree (#12) is proposed to have an encroachment into its protected zone.





Of the 51 oaks inventoried, 1 oak tree (2%) received an "A" grade, 18 oak trees (35%) received a "B" grade and 27 oaks (53%) earned a "C' grade at the time of the surveys. Due mostly to fire damage and its effects, 5 oak trees (10%) received a "D" grade because of failing health. This report identifies the extent of the potential impacts and recommends management and/or mitigation measures where appropriate.

The 51 property trees are scattered within the property limits. We used Hunsaker and Associates' grading base map to determine the impacts to the protected oak trees.

Table 1 summarizes the inventoried trees and their proposed dispositions. Captioned photographs and exhibits at the end of this report illustrate site context, tree locations, tree structure, and vigor. A full-sized copy of the Oak Tree Impact Exhibit and Protection Plan is included in a pocket at the end of this report.

TABLE 1 - SUMMARY OF INVENTORIED OAK TREES

Tag			DBH(s)		Height	Cano	ору Ѕр	read (~	-feet)	Overall
No.	Common Name	Botanical Name	(inches)	Heritage	(~feet)	Ν	Ε	S	W	Grade
9(H)	valley oak	Quercus lobata	39.8	х	35	18	18	6	17	C-
10	valley oak	Quercus lobata	25.2		35	22	15	25	20	В
11	valley oak	Quercus lobata	20		35	16	13	28	17	C-
12(H)	valley oak	Quercus lobata	21, 44	X	40	46	40	34	20	C+
14	valley oak	Quercus lobata	26.3		40	30	26	33	28	B-
15	valley oak	Quercus lobata	14.5		16	5	6	16	6	C-
16	valley oak	Quercus lobata	27.5		40	33	25	27	36	В
18	valley oak	Quercus lobata	27.4		30	0	30	35	33	D
19	valley oak	Quercus lobata	20.6		25	25	25	31	20	В
22	valley oak	Quercus lobata	19.2		30	24	21	22	20	В
23	valley oak	Quercus lobata	34.2		40	35	16	28	30	В-
24	valley oak	Quercus lobata	30.4		40	28	28	18	25	B-



Tag	Common Name	Botanical Name	DBH(s)	Heritage	Height	Cano	ору Ѕр	read (~	-feet)	Overall
No.	Common Name	botanicai name	(inches)	Пептаде	(~feet)	N	Е	S	W	Grade
25	valley oak	Quercus lobata	26.7		40	30	28	25	25	В
28	valley oak	Quercus lobata	26.2		22	33	21	23	6	D+
30	valley oak	Quercus lobata	30.2		20	24	18	0	10	D
31	valley oak	Quercus lobata	31.5		35	15	13	23	14	C-
32	valley oak	Quercus lobata	22.8		35	23	18	18	15	С
33	valley oak	Quercus lobata	15.6, 17.9		35	18	18	5	23	C-
34	valley oak	Quercus lobata	12.5, 12, 14.2		35	15	20	7	16	C-
37	valley oak	Quercus lobata	26		25	12	30	30	30	D+
38	valley oak	Quercus lobata	10		22	9	6	13	18	С
41	scrub oak	Quercus berberidifolia	3, 4, 4, 6.5, 6.5		15	6	8	14	13	D
89	scrub oak	Quercus berberidifolia	6.8, 7.3		15	22	24	0	18	B-
102	valley oak	Quercus lobata	29		45	26	22	19	22	В
103	scrub oak	Quercus berberidifolia	4.5, 6.2, 9, 8.5		18	16	10	14	13	С
112	scrub oak	Quercus berberidifolia	5.7, 6.4, 6.9		14	12	13	15	13	С



Tag	Common Name	Botanical Name	DBH(s)	Heritage	Height			read (-		Overall
No.			(inches)		(~feet)	N	E	S	W	Grade
113	scrub oak	Quercus berberidifolia	7, 5.1		14	18	0	0	15	B-
115	scrub oak	Quercus berberidifolia	7.8, 7.3		15	14	10	17	18	В
116	scrub oak	Quercus berberidifolia	10.7, 3.5, 2.1, 4.3		14	8	12	14	18	С
117	scrub oak	Quercus berberidifolia	5, 10, 11		18	16	24	15	15	С
120	scrub oak	Quercus berberidifolia	3.9, 7, 7.5		18	12	6	6	13	C-
125	scrub oak	Quercus berberidifolia	5.2, 7.1, 9.6, 10.4		15	16	12	8	12	С
129	scrub oak	Quercus berberidifolia	15		15	15	14	16	15	C+
131	scrub oak	Quercus berberidifolia	5.7, 8, 7.8, 7.8		15	14	8	8	5	С
141	coast live oak	Quercus agrifolia	35.5		30	17	17	23	31	С
156	scrub oak	Quercus berberidifolia	9 @ 3.5'		25	23	12	10	20	C-
157	scrub oak	Quercus berberidifolia	4, 4, 4.5, 5.5, 8		20	12	12	15	18	В
163	valley oak	Quercus lobata	18.5, 23.2		40	24	18	24	28	C+
164	scrub oak	Quercus berberidifolia	3.5, 4, 3.8, 3 x 5", 5.5", 3 x 6"		15	15	18	22	15	В



Tag	Common Name	Botanical Name	DBH(s)	Haritaga	Height	Cano	opy Sp	read (-	-feet)	Overall
No.	Common Name	DUIdHIICAI NAIHE	(inches)	Heritage	(~feet)	N	Ε	S	W	Grade
168	valley oak hybrid	Quercus lobata	28.7		30	29	33	25	24	C-
170	valley oak	Quercus lobata	21.5		25	17	28	16	13	С
172	valley oak hybrid	Quercus lobata	13.3, 16.1		30	23	42	40	7	B-
173	valley oak	Quercus lobata	23.2 @ 4'		28	32	28	26	27	В
9501	valley oak	Quercus lobata	8.8		30	12	6	10	15	С
9502	scrub oak	Quercus berberidifolia	4.8, 4.6, 5, 6.1, 5.4, 4.4, 5.3, 6.4		18	20	18	20	18	В
9503	scrub oak	Quercus berberidifolia	6, 4.7, 6.7		16	20	25	15	10	C-
9504	scrub oak	Quercus berberidifolia	3.5,4,4.2,4.7,5.2,5.3 ,6,6,6.2,6.5,8		18	27	28	18	15	С
9505	scrub oak	Quercus berberidifolia	1,1,1,1,1,5.5, 6.5		14	22	18	14	23	С
9506	coast live oak	Quercus agrifolia	8.6		20	8	10	10	8	В
9507	valley oak	Quercus lobata	9.1		25	12	12	12	12	A-
9508	valley oak	Quercus lobata	8.4		16	5	5	7	7	B-





### **DISCUSSION**

There are several potential consequences related to construction that may affect trees during and after a typical roadway / parking area construction process. They are as follows:

- Excavation Root Severance
- Soil Compaction (During and Post-construction)
- Alteration of the Water Table/Site Drainage
- Changes in grade
- Substantial Trimming of Canopy or Roots
- Protection against mechanical damage fencing
- Irrigation

### A. Excavation/Trenching—Root Severance

Trenching can include excavation for water lines, irrigation, utility, or drainage lines. Trenching and excavation can also be required for foundations of structures and free-standing or retaining walls. Trenching and excavation removes soil and tree roots. When performed in the critical root zone (approximately 5x the trunk diameter of any tree) or within the dripline (outer edge of the natural canopy), there is the potential to remove large areas of root mass, and to shatter and tear roots that will remain connected to the tree(s). Torn and shattered roots cannot callous over or generate new roots in the manner of cleanly-cut roots. Torn and shattered roots are potentially unstable, are entry points for disease and decay organisms, and eventually die. Significant root loss and/or severance can be critical to the health and structure of trees to remain in a landscape.

### B. 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 hindrance of root growth. Soil compaction is considered the largest single factor responsible for the decline of trees on construction sites.

### C. Changes in Grade

Changes in grade, by the addition or removal of soil (filling or cutting), can be injurious. Lowering the grade around trees can have immediate and long-term effects on trees. The addition of soil and compaction for common engineering practices also results in long-term effects on trees. Typically, the vast majority of the root mass exists within the top three feet of soil, and most of the fine roots active in water and nutrient absorption are in the top 12 inches.

### D. Alteration of the Water Table/Site Drainage

The water table is the upper surface of the zone in which soil macropores are saturated with water; water tables may vary seasonally. Rather than a flat, static surface, the water moves down a gradient. Its depth varies, depending on the structure of the soil and rocks through which it flows. A perched water table may form in soils that have impermeable strata. Swamps are created where the water table intersects level ground.

Structures such as footings, basements, subterranean buildings, and retaining walls may intercept impermeable layers in the soil on which water perches. If adequate drainage is not provided, the water





table uphill may gradually rise and interfere with tree roots. This type of damage usually takes a period of time to be recognized and diagnosed.<sup>3</sup>

Oak trees are particularly susceptible to root infections, such as Armillaria, Ganoderma, and Phytophthora. These diseases can progressively weaken a root system and the trunk of a tree, resulting in dead branches in the canopy of the tree, loss of stability of the entire tree because of decaying roots, and premature death of the tree. Trees form roots in accordance with existing soil composition and water availability. Minor drainage changes in the winter and spring months are significant to the health of the trees.

### E. Canopy and Root Pruning

Leaves perform vital functions for trees. Through photosynthesis, they manufacture sugars that feed the tree and are used to create the building blocks of wood. Leaves help to move water and nutrients up from the roots and around the tree through their vascular system and cool the tree down through transpiration. Leaves moderate temperatures beneath the tree, lessen the drying action of winds, and intercept rainfall, which reduces erosion. On the ground, they moderate soil temperatures, retain moisture, and as they decompose, return their nutrients back to the soil to be recycled and reused by the tree. A healthy canopy of leaves is essential to ensure an adequate food supply for the roots to perform their important functions.

Typically, root systems extend outward past the dripline. Main root functions include water and mineral conduction, food and water storage, and anchorage of the tree to the soil. Root systems consist of short-lived, fine-textured, feeder roots and larger, woody, perennial roots. Feeder roots, while averaging only 1/16 inch in diameter, constitute the major portion of the root system's surface area. Feeder roots act like sponges, growing predominantly outward and upward from the large roots near the soil surface where minerals, water, and oxygen are usually abundant. Larger, woody roots and their subordinates tend to annually increase in diameter and grow horizontally. Predominantly located in the top 6 to 24 inches of the soil, these structural and storage roots usually do not grow deeper than three to seven feet. Root growth is generally inhibited by soil compaction and temperature. As the depth increases, soil compaction increases, and the availability of water, minerals, oxygen, and soil temperature all decrease.

Removal of significant amounts of the canopy and/or root system can lead to both immediate and long-term detrimental effects on trees. Effects can be physiological, structural, or both.

### F. Protection Against Mechanical Damage/Fencing

Fencing is a temporary enclosure erected around a tree to enclose as much of its safety zone as possible. Fences are critical to (1) prevent direct contact and damage to the canopy, branches, and trunk, (2) preserve roots and soil in an intact and non-compacted state, and (3) identify the Tree Protection Zone. Fencing must be in place before demolition or the initiation of construction and remain until adjacent construction activity no longer threatens tree health.

### G. Irrigation

Trees that have suffered root loss may not be able to exploit as large a soil volume as before injury. Also, changed patterns of drainage may divert water away from trees. In either case, trees may benefit from supplemental irrigation prior to and during construction.

The following are general guidelines for irrigation:

<sup>&</sup>lt;sup>3</sup> Nelda Matheny and James R. Clark, <u>Trees and Development: A Technical Guide to Preservation of Trees During Land Development</u>, (Champaign, Illinois: International Society of Arboriculture, 1998), pp. 88-89.





- The amount of water applied must be appropriate to the species.
- Light, infrequent irrigations should be avoided.
- Excess irrigation from new landscaping should be avoided. Runoff from plantings should be minimized and/or directed away from trees.
- Wetting the trunk should be avoided.<sup>4</sup>

### Construction Impacts

Based on the Site Plan provided, 34 protected oak trees will require removal and one tree (Trees #12(H)) will experience protected root zone and/or canopy encroachment to some degree. Table 2 summarizes the proposed dispositions of the oaks. A reduced copy of the Oak Tree Impact Exhibit and Protection Plan is included herein as Exhibit B. A full-scale, color, copy of this map is included in the back pocket of the report.

Cross-sections for the proposed encroachment trees have not been prepared at this stage of the process. Detailed cross-sections may be prepared once the final engineering plans have been reviewed by the County. The impacts described are based on the undersigned arborist's experience with demolition, retaining wall construction, hardscape installation, and construction in general.

TABLE 2 - SUMMARY OF OAK TREE IMPACTS

Disposition	# of oak trees	Oak Tree #s
No impact	16	9(H), 10, 11, 14, 15, 16, 18, 19, 22, 23, 24, 25, 141, 9501, 9506, 9507
Remove	34	28, 30, 31, 32, 33, 34, 37, 38, 41, 89, 102, 103, 112, 113, 115, 116, 117, 120, 125, 129, 131, 156, 157, 163, 164, 168, 170, 172, 173, 9502, 9503, 9504, 9505, 9508
Encroach	1	12(H)
(H) = Heritage oak tree		

Arboricultural research discourages root severance within five times the tree's trunk diameter on any one side of the tree for structural impacts. We refer to this area as the 'critical root zone' (CRZ) and it is different than the TPZ. Table 3 indicates the 'critical root zone' of the encroached oak tree #12(H), as well as the distance that the improvements are proposed from the trunk. Outside of the CRZ, removal of non-structural roots may cause short- or long-term declines in tree health and vigor. Tree reactions to root loss vary due to many factors, including but not limited to species, environmental conditions, presence of pests or disease, and cannot be predicted.

TABLE 3 - IMPACT TO CRITICAL ROOT ZONE (CRZ) AND CANOPY OF ENCROACHMENT OAK

		Critical Root	Distance from edge of	CRZ impacted	Canopy
		Zone (CRZ)	trunk to proposed	from	Pruning
Tree #	Trunk diameter (in inches)	(in feet)	improvements (in feet)	improvements?	Likely?
12(H)	21, 44 (48.8 cumulative)	20	25	No	Yes



<sup>&</sup>lt;sup>4</sup> See Matheny and Clark, p. 125.



### CONCLUSION

Based on the plans, 34 oak trees will require removal due to grading and development of the project. Proposed construction activities will result in encroachment to the TPZs of one protected oak (Trees #12(H)). The encroachment, as illustrated on the Oak Tree Impact Map and Protection Plan, is outside the CRZ of the oak tree to remain. Given the distance from the trunk to the proposed root-zone impacts, the encroachments are not anticipated to be significantly detrimental to the long-term health and structural integrity of the tree.

Recommendations for tree protection during construction and mitigation are provided below.

### **OAK TREE REPORT RECOMMENDATIONS**

Implementation of the proposed project will remove 34 oak trees. One protected oak tree will sustain an encroachment into its protected canopy and root zone.

Should additional oak trees grow into ordinance size within the duration of the oak tree permit, removal, encroachment, or other impacts shall be included into the conditions of the oak tree permit to ensure proper mitigation.

In my professional opinion, the following recommendations should be conditioned as part of the Oak Tree Permit:

- Plant replacement oak trees at a 2:1 ratio:
   Replacement trees shall consist of valley oak (Q. lobata), California scrub oak (Q. berberidifolia) and coast live oak (Q. agrifolia) trees. The size and quality of the replacement trees shall be consistent with the conditions of approval in the Oak Tree Permit, usually 15-gallon container size.
- The Arborist of Record shall monitor the replacement trees for a minimum of five years, to evaluate
  the growth, health, and condition of the replacement trees. The five-year monitoring period will begin
  upon receipt of a letter from the Applicant or Arborist of Record to the Director and the County
  Forester indicating that the replacement trees have been planted.
- 3. The applicant will be responsible for contracting the monitoring and maintenance of the mitigation oaks. The Arborist of Record will be retained to provide monitoring and reporting services for the mitigation trees at monthly intervals the first year, quarterly intervals for the next two years and six-month intervals for the remaining years of the monitoring period. If any mitigation tree(s) die during the monitoring period, the applicant shall plant new mitigation trees (minimum 15-gallon container size) and the five-year monitoring period shall begin again from the date of planting for the replacement mitigation oak.
- 4. A planting plan shall be prepared by the Landscape Architect in accordance with the Los Angeles County Oak Tree Ordinance, with the input of the Arborist of Record, and submitted for County approval prior to project commencement (i.e., issuance of demolition, grading, or building permit).
- 5. Oak tree removals, when permitted, shall be monitored for conformance with applicable recommendations No. 1-4 above and County standards and documented by the Arborist of Record.
- 6. If more than 12 months pass between the time of the oak tree inventory and project commencement, a pre-construction walk-through will be conducted to note changes in the encroachment tree(s) and provide baseline information that will be used to assess the changes in the tree(s) following construction.
- 7. Construction monitoring intervals will be a minimum of twice a month during grading operations but may change due to site conditions and progress.





- 8. Any grubbing (plant or topsoil removal), demolition, digging, excavating, filling, grading, trenching, or construction within the Tree Protection Zone (TPZ) of any protected oak tree in relation to the project shall be monitored by the Arborist of Record.
- 9. Care should be taken not to damage overhanging limbs that may extend over the encroachment areas. Temporary sections of moving blankets and orange snow fence material should be wrapped (snug, but not tight) around the low, horizontal limbs that extend over the impact area, where applicable and recommended by the AOR. This will act as a clear reminder to the contractors that the tree canopy is protected.
- 10. Construction monitoring reports shall be submitted annually to the Department of Regional Planning and the Forestry Division by the Arborist of Record.
- 11. Unless specified in this report for encroachment tree(s), equipment, materials, and vehicles shall not be stored, parked, or operated within the tree protection zone of any oak tree to remain. Existing, <u>paved</u> driveways and roads <u>may</u> be used.
- 12. Excavation within the tree protection zone of any oak tree to remain shall be performed using hand tools or small equipment as approved by the AOR in the field during monitoring.
- 13. Wherever feasible, new utility lines shall be routed outside of oak tree protected zones. When utility routing inside the TPZ is unavoidable, new utilities should be routed at least 5x the trunk diameter of an oak tree to remain. Placement of new utility lines or drains shall be placed to avoid severing significant structural roots or significant areas of top-soil roots.
- 14. Where necessary and approved by the Arborist of Record in the field during monitoring, tunneling may be used to connect new utilities that must traverse oak tree protection zones.
- 15. High-water use landscape under oaks is prohibited, as it will lead to increased potential for root rot disease. Low water, shade tolerant plantings shall be substantially consistent with the attached booklet on *Compatible Plants under and Around Oaks*.
- 16. Where there are no driveways or walkways, leaf litter should be allowed to accumulate naturally within the tree protection zones of oak trees to remain. This may be augmented by mulch and should be 3-4 inches deep. The area of mulch and leaf litter should be maintained at least 5x the trunk diameter of each tree. No ground disturbance should occur in this area.
- 17. Irrigation should not be applied to within 3x the trunk diameter of any oak tree to remain. Drainage shall be designed to route water away from the base of oaks to remain.
- 18. High-water use plants shall be maintained outside of the oak tree driplines.
- 19. If canopy pruning is found to be necessary for trees to remain, it should only be performed by a qualified ISA Certified Arborist or ISA Certified Tree Worker. Pruning of live branches over two inches in diameter requires an encroachment permit. Pruning that is not covered in this report may require a new Oak Tree Permit.
- 20. Five (5) foot high chain link fencing shall be installed prior to the commencement of construction activities. The fencing plan or on-site fencing shall be reviewed and approved by the County Forester prior to issuance of the demolition permits, grading permits, or other permits that involve soil disturbance.
- 21. All fencing and trunk protection shall be verified by the County Forester prior to commencement of work and shall remain in place until the County Forester approves its removal.
- 22. A 'Warning' sign is prominently displayed on each protective enclosure. The sign will be a minimum of 8.5 inches x 11 inches and clearly state the following:





# OAK TREE PROTECTION ZONE THIS FENCE SHALL NOT BE REMOVED ARBORIST CONTACT: CARLBERG ASSOCIATES 310.451.4804 OR 626.428.5072

- 23. Water shall not be allowed to pond around the base of the oak trees.
- 24. Drainage swales, ribbon drains, and energy disbursement devices (riprap pads, etc.) should be designed to outlet at least 10 feet from any tree trunk.
- 25. For construction clearance, retention of oak tree foliage shall be the priority; foliage may be tied-back or minimally pruned for clearance, but medium and large limbs (over 2 inches in diameter) shall be preserved. If pruning of branches greater than 2 inches in diameter is necessary on trees that are not included as encroachments in this report, the AOR shall review the situation and the County Forester will have to authorize the cut(s).
- 26. Exhaust from equipment situated outside of the tree canopies shall be directed away from the foliage to avoid desiccation or scorching of leaves and twigs.

Please feel welcome to contact me at 424.285.3334 if you have any immediate questions or concerns.

Respectfully submitted,

Scott McAllaster

ISA Certified Arborist, #WE-7011A ISA Qualified Tree Risk Assessor

Sierra Madre Office scott@cycarlberg.com

This report comprises a total of 63 pages and 9 full-size maps. Unauthorized separation or removal of any portion of this report deems it invalid as a whole. Conditions represented in this report are limited to the inventory date and time. Risk assessments were not requested nor performed for the purposes of this report. Ratings for health, aesthetics, and structure do not constitute a health or structural guarantee beyond the date and time of the inspection.

## Carlberg ASSOCIATES



EXHIBIT A – AERIAL EXHIBIT – ENTRADA SOUTH, VTTM 53295 SOURCE: COUNTY OF LOS ANGELES GIS



Not to Scale



## Carlberg<sub>ASSOCIATES</sub>

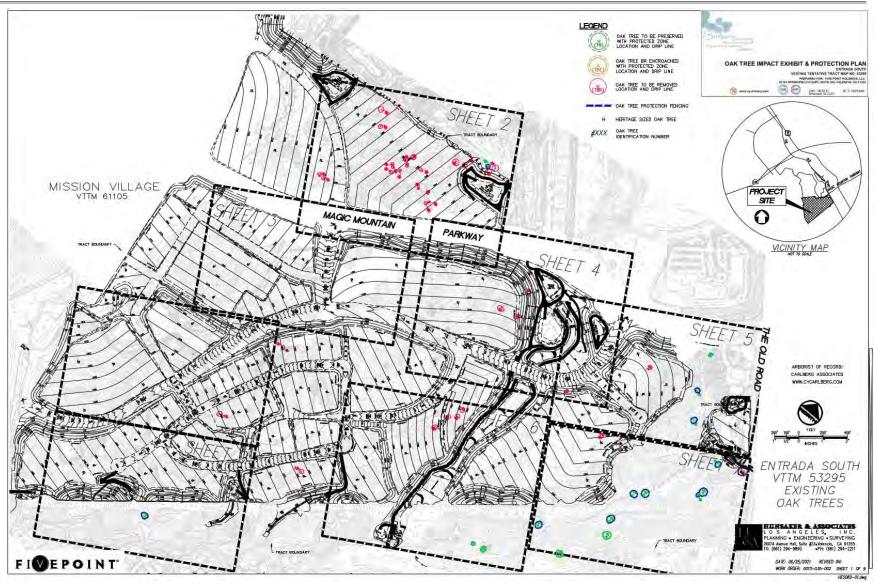
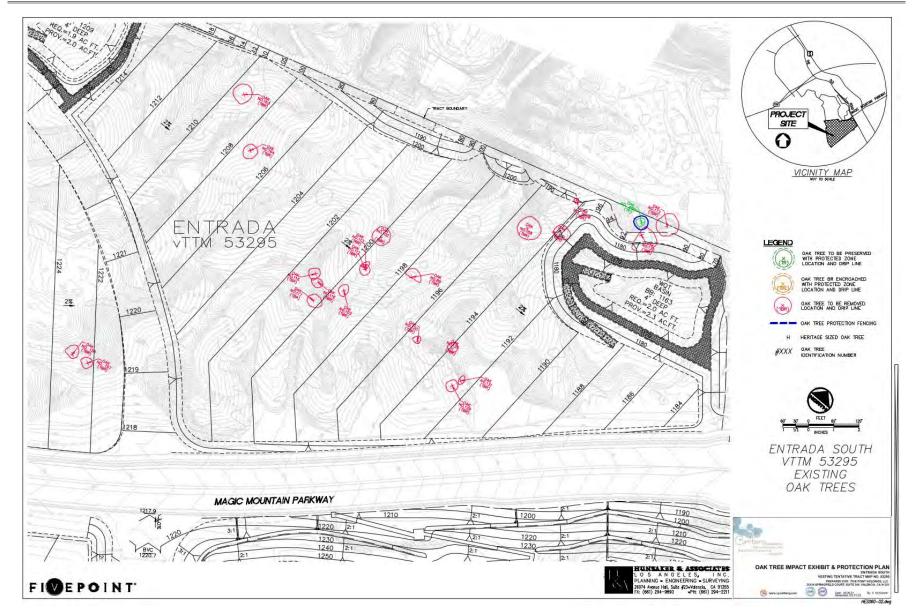


EXHIBIT B - REDUCED COPY OF THE OAK TREE IMPACT & PROTECTION PLAN (9 sheets)



## Oar bergassociates



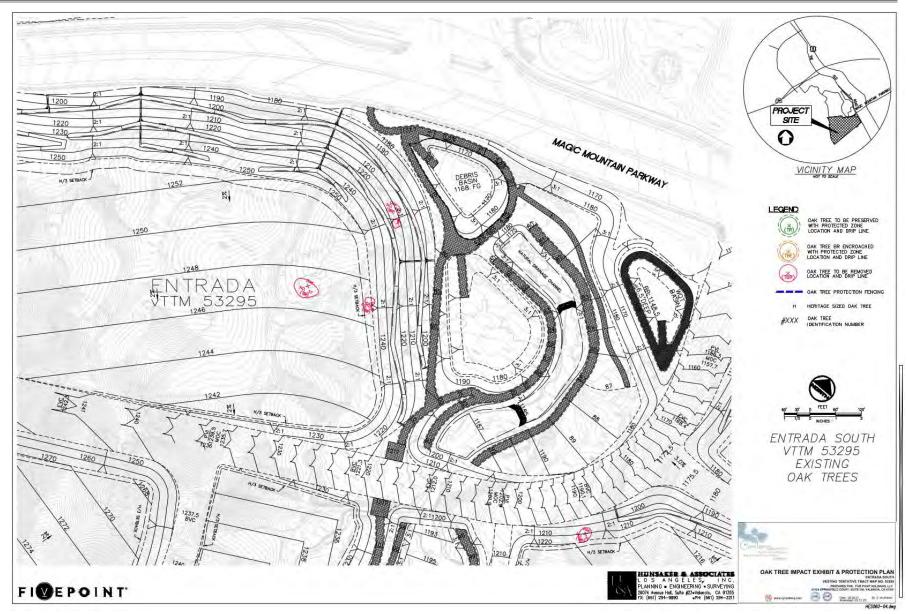


## Carlberg<sub>ASSOCIATES</sub>





## Carlberg ASSOCIATES



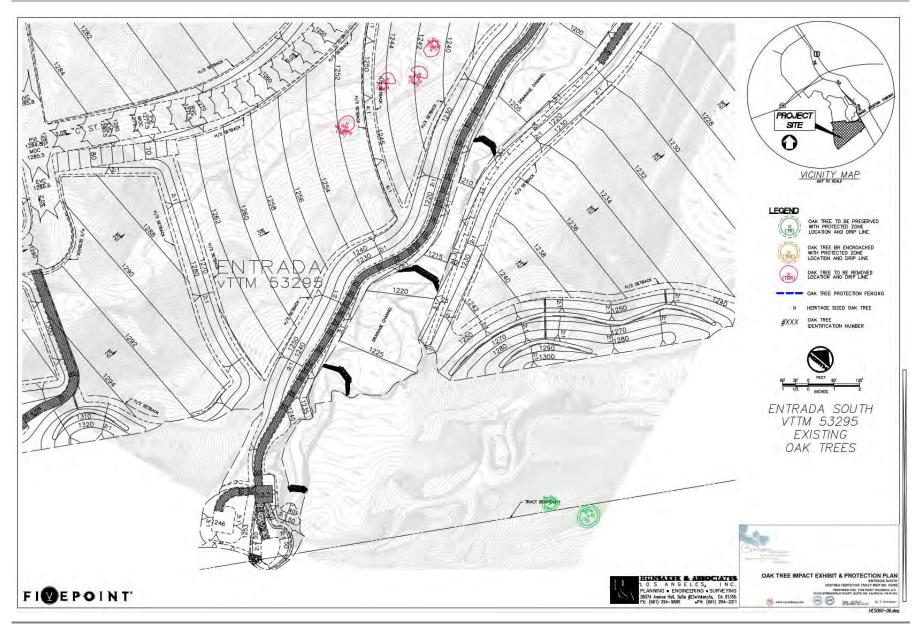


## Oar bergassociates





## Carlberg ASSOCIATES



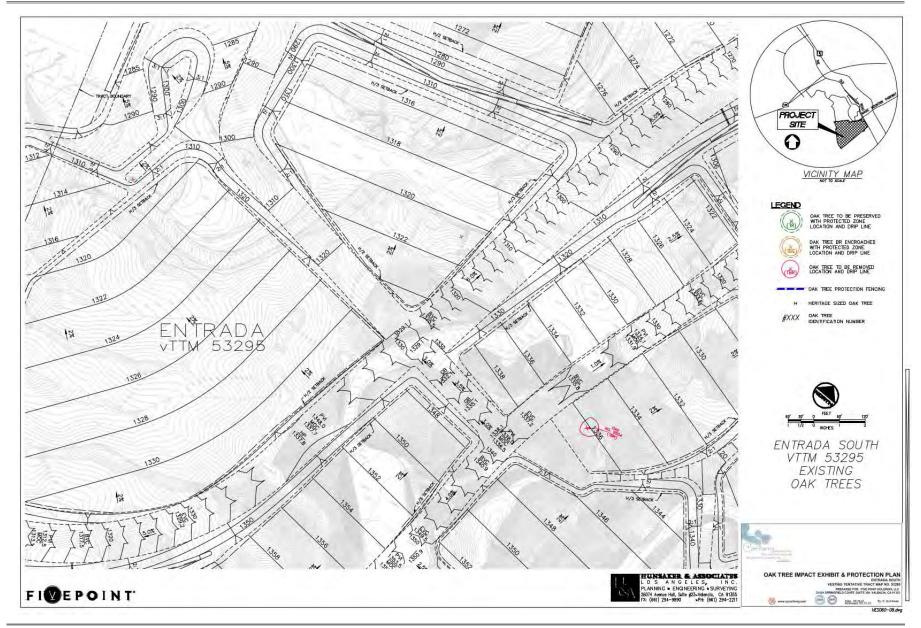


## Carlberg<sub>ASSOCIATES</sub>





## Carlberg<sub>ASSOCIATES</sub>





## Oar bergassociates







### CERTIFICATION OF PERFORMANCE

I, Scott McAllaster, certify:

- That we have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and appraisal (if appropriate) is stated in the attached report and the Terms of Assignment;
- That we have no current or prospective interest in the vegetation or the property that is the subject of this
  report and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions, and conclusions stated herein are our own;
- That our analysis, opinions, and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report;
- That our compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I further certify that I am an International Society of Arboriculture Certified Arborist and Qualified Tree Risk Assessor and have been involved in the practice of arboriculture and the study of trees for over 17 years.

Signed:

Date: March 31, 2023

Scott McAllaster Certified Arborist, WE-7011A Qualified Tree Risk Assessor

scott@cycarlberg.com





### ARBORIST DISCLOSURE STATEMENT

Arborists are tree Consultants who use 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 to seek additional advice.

Arborists 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 below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees contribute greatly to our enjoyment and appreciation of life. Nonetheless, they are subject to the laws of gravity and physiological decline. Therefore, neither arborists nor tree owners can be reasonably expected to warrant unfailing predictability or elimination of risk.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Formal risk assessments were not requested nor performed on the trees in this report.





### **HEALTH AND STRUCTURE GRADE DEFINITIONS**

Health and structure ratings of the trees are based on the archetype tree of the same species through a subjective evaluation of its physiological health, aesthetic quality, and structural integrity.

Overall physiological condition (health) and structural condition were rated A-F:

### Health

- A. Outstanding Exceptional trees of good growth form and vigor for their age class; exhibiting very good to excellent health as evidenced by normal to exceptional shoot growth during current season, good bud development and leaf color, lack of leaf, twig or branch dieback throughout the crown, and the absence of decay, bleeding, or cankers. Common leaf and/or twig pests may be noted at very minor levels.
- B. Above average Good to very good trees that exhibit minor necrotic or physiological symptoms of stress and/or disease; shoot growth is less than reasonably expected, leaf color is less than optimal in some areas, the crown may be thinning, minor levels of leaf, twig, and branch dieback may be present, and minor areas of decay, bleeding, or cankers may be manifesting. Minor amounts of epicormic growth may be present. Minor amounts of fire damage or mechanical damage may be present. Still healthy, but with moderately diminished vigor and vitality. No significant decline noted.
- C. Average Average, moderately good trees whose growth habit and physiological or fire-induced symptoms indicate an equal chance to either decline or continue with good health into the near future. Most of these trees exhibit moderate to significant small deadwood in outer crown areas, decreased shoot growth and diminished leaf color and mass. Some stem and branch dieback is usually present and epicormic growth may be moderate to extensive. Cavities, pockets of decay, relatively significant fire damage, bark exfoliation, or cracks may be present. Moderate to significant amounts of insect or disease symptoms may be present; the tree may be shaded or crowded in such a way that it is expected to negatively impact the lifespan of the tree. Tree may be in early decline.
- D. Below Average/Poor trees whose growth habit and physiological or fire-induced symptoms indicate significant, irreversible decline. Most of these trees exhibit significant dieback of wood in the crown, possibly accompanied by significant epicormic sprouting. Shoot growth and leaf color and mass is either significantly diminished or nonexistent throughout the crown. Cavities, pockets of decay, significant fire damage, bark exfoliation, and/or cracks may be present. Significant amounts of insect or disease symptoms may be present; the tree may be shaded or crowded in such a way that it has negatively impacted the lifespan of the tree. Tree appears to be in irreversible decline.
- F. Dead or in spiral of decline this tree exhibits very little to no signs of life.





### Structure

- A. Outstanding Trees with outstanding structure for their species exhibit trunk and branch arrangement and orientation that result in a sturdy form or architecture that resists failure under normal circumstances. The spacing, orientation, and size of the branches relative to the trunk are quintessential for the species and free from defects. No outward sign of decay or pathological disease is present. Some trees exhibit naturally inherent branching defects, like multiple, narrow points of attachment from one point on the trunk, which would preclude them from achieving an "A" grade.
- B. Above average Trees with good to very good structure for their species. They exhibit trunk and branch arrangement and orientation that result in a relatively sturdy form or architecture that resists failure under normal circumstances, but may have some mechanical damage, over-pruning, or other minor structural defects. The spacing, orientation, and size of the branches relative to the trunk are still in the normal range for the species, but they exhibit a minor degree of defects. Minor, sub-critical levels of decay or pathological disease may be present, but the degree of damage is not yet structurally significant. Trees that exhibit naturally inherent branching defects, like multiple, narrow points of attachment from one point on the trunk, would generally fall in to this category. A small percentage of the canopy may be shaded or crowded, but not in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree.
- C. Average Trees with moderately good structure for their species, but with obvious defects. They exhibit trunk and branch arrangement and orientation that result in a less than sturdy form or architecture, which reduces their resistance to failure under normal circumstances. Moderate levels of mechanical damage, over-pruning, or other structural defects may be present. The spacing, orientation, and size of some of the branches relative to the trunk are not in the normal range for the species. Moderate to significant levels of decay or pathological disease may be present that increase the likelihood of structural instability. Influences such as an excessive trunk lean, slope erosion, root pruning, or other growth-inhibiting factors may be present. A moderate to significant percentage of the canopy may be shaded or crowded in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree. Risk of full or partial failure in the near future appears to be moderately elevated.
- D. Well Below Average/Poor Trees poor structure for their species and with obvious defects. They exhibit trunk and branch arrangement and orientation that result in a significantly less than sturdy form or architecture, significantly reducing their resistance to failure under normal circumstances. Significant levels of mechanical damage, over-pruning, or other structural defects may be present. The spacing, orientation, and size of many of the branches relative to the trunk are not in the normal range for the species. Significant levels of decay or pathological disease may be present that increase the likelihood of structural instability. Influences such as an excessive trunk lean, slope erosion, root pruning, or other growth-inhibiting factors may be present. A significant percentage of the canopy may be shaded or crowded in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree. Risk of full or partial failure in the near future appears to be advanced.
- F. Severely Compromised trees with very poor structure and numerous or severe defects due to growing conditions, historical or recent pruning, mechanical damage, history of limb or trunk failures, advanced decay, disease, or severe fire damage. Risk of full or partial failure in the near future appears to be severe.





### SCOTT MCALLASTER CARLBERG ASSOCIATES

Satellite Office - 80 W. Sierra Madre Blvd., #241 • Sierra Madre • California • 91024

828 Fifth Street, Suite 3 • Santa Monica • California • 90403

scott@cycarlberg.com • m: 424.285.3334 • www.cycarlberg.com

Education B.A., Environmental Studies, University of California, Santa Barbara, 2000

Experience Project Planner & Senior Arborist, Land Design Consultants, Inc.

Pasadena, 1999 - 2014

Certificates Certified Arborist, WE-7011A, International Society of Arboriculture, 2004

Qualified Tree Risk Assessor, International Society of Arboriculture, 2015

### **AREAS OF EXPERTISE**

Mr. McAllaster is experienced in the following areas of tree management and preservation:

- Tree health & risk assessments
- Inventories & reports for native and non-native trees
- Master planning
- Evaluation of trees for preservation, encroachment, relocation, restoration, and hazards
- Construction monitoring and reporting
- Value assessments (appraisals) for native and non-native trees
- Post-fire inventories, assessments, and valuations for native and non-native trees
- Guidelines for tree preservation, planting, pruning and maintenance specifications
- Tree and landscape resource mapping GPS and AutoCAD
- Planning Commission, City Council, and community meetings representation
- Review of landscape plans for mitigation compliance & fire fuel modification planning
- Performance of long-term mitigation compliance monitoring & reporting

### PREVIOUS CONSULTING EXPERIENCE

Mr. McAllaster has performed hundreds of tree inventories, health evaluations, impact analyses, hazard, and value assessments for counties, cities, sanitation districts, and water districts, as well as private developers, architects, engineers, and homeowners. He has over 17 years of experience in arboriculture and is trained in environmental planning, state and federal regulatory permitting, preparation of CEQA analyses, and habitat mitigation planning and implementation. Representative clients include:

City of Pasadena City of Santa Clarita

City of Glendora Los Angeles County Fire Department Los Angeles County Sanitation Districts Newhall County Water District

Pulte/Centex Homes
Newhall Land and Farming

E & S Ring, Inc.

Hollywood Forever Cemetery Archdiocese of Los Angeles St. John's Hospital, Santa Monica

Kovac Architects

Tim Barber, Ltd., Architects

Ojai Valley Community Hospital

The Kibo Group

El Monte Garden Senior Center

IMT Capital, LLC

San Diego Gas & Electric Corky McMillin Companies

City of South Gate City of Arcadia D2 Development Burrtec, Inc.

The Claremont Colleges
The New Home Company
William Carey University
Claremont Golf Course
Universal Hilton
Gensler Architects

Marmol Radziner, Architects

NAC Architecture

Aurora/Signature Health Services Monte Vista Grove Homes

Highpointe Communities Claremont University Center

### **AFFILIATIONS**

Mr. McAllaster serves with the following national and regional professional organizations:

- Member, International Society of Arboriculture, Western Chapter
- Member, Street Tree Seminar, Inc.





### APPENDIX I - OAK TREE INVENTORY FIELD DATA TABLE



### OAK TREE INVENTORY FIELD DATA TABLE

Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	S	w	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
9	Quercus Iobata	39.8	X	35	18	18	6	17	30	S		Р	S	X	Х	X						Ex		х	С	D	Р	C-	large scaffold failed, cavity at base
10	Quercus lobata	25.2		35	22	15	25	20	70	S		Α	Α		Х	Х						Мо			В	С	Α	В	in spineflower preserve
11	Quercus Iobata	20		35	16	13	28	17	40	S		Р	S	X	Х							Ex			С	D	F	C-	in spineflower preserve, E side dead
12	Quercus Iobata	21, 44	х	40	46	40	34	20	85	S		Р	Α	X	Х	Х						Mi			B+	C+	Α	C+	fenced; history of breakage, large branches, decay
14	Quercus lobata	26.3		40	30	26	33	28	70	S		Р	S	X	X							Мо			B-	B-	Α	В-	old tag 3 and 14; recovery good with rains; vigorous epicormic & tip growth; HOB
15	Quercus Iobata	14.5		16	5	6	16	6	60	S		Р	S		х	х						Мо			С	C-	Α	C-	bees



Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	s	w	% Canopy Cover	Terrain Flat\Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
16	Quercus Iobata	27.5		40	33	25	27	36	85	S		Α	Α	Х	Х							Мо			B+	В	E	В	old 9, under power lines, TW #25; vigorous new growth; good recovery with rains, some old fire damage
18	Quercus Iobata	27.4		30	0	30	35	33	20	S		Р	S	Х	x	x	X					Ex			С	D	C-	D	southwest of power lines; TW #27; all epicormic with rains; HOB; cavity at base, active mourning dove nest
19	Quercus Iobata	20.6		25	25	25	31	20	80	S		Р	Α	X	X	x					x	Мо			B+	B-	Е	В	old 11, under power lines, TW #20; fire damage at base, cavity at base
22	Quercus Iobata	19.2		30	24	21	22	20	70	S		Р	S	Х	X	X					x	Мо			В	В	Α	В	TW #18, off-site, SW of power lines, surrounded by mitigation trees; good recovery
23	Quercus Iobata	34.2		40	35	16	28	30	30	S		Р	S	х	x	X					х	Ex			B-	B-	Α	B-	under power lines; old fire damage; fair recovery with rains; epicormic growth; nest





Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	s	w	% Canopy Cover	Terrain Flat / Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
24	Quercus Iobata	30.4		40	28	28	18	25	40	F		Р	S	Х	X	x					x	Ex			B-	В-	Α	B-	old 7, old fire damage; canopy all epicormic; HOB; cracks in bark
25	Quercus lobata	26.7		40	30	28	25	25	75	F		Р	Α	X	Х	Х						Мо			В	В	Α	В	diameter measured at 2 ft.
28	Quercus Iobata	26.2		22	33	21	23	6	30	S		Р	S	X	х	х					Х				C-	D	F	D+	old 14 and 22, lower third of tree laterals are epicormic; HOB; recovery good with rains; old fire damage
30	Quercus Iobata	30.2		20	24	18	0	10	15	S		Р	S	X	Х							Ex			D	D	F	D	diameter measured at 4 ft.
31	Quercus Iobata	31.5		35	15	13	23	14	40	F		Α	S	х	X	X						Ex			С	D	F	C-	old 28, TW #32; epicormic recovery good with rains
32	Quercus Iobata	22.8		35	23	18	18	15	50	F		Α	S	х	x	x					X	Ex			С	С	F	С	old 29, TW #23; some top/tip growth; recovery good with rains; old fire damage



Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	S	w	% Canopy Cover	Terrain Flat\Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
33	Quercus Iobata	15.6, 17.9		35	18	18	5	23	50	F		Α	s	X	X	X					Х	Ex			С	C-	F	C-	all epicormic growth
34	Quercus Iobata	12.5, 12, 14.2		35	15	20	7	16	50	F		A	S	Х	X	x					Х	Ex			С	D	F	C-	old 31, TW #12; recovery good with rains; some top/tip growth; one 11" trunk dead
37	Quercus Iobata	26		25	12	30	30	30	50	S		Α	S	X	x	X						Ex			C-	D	F	D+	fenced - no access, history of breakage, large branches, decay; improved with rains; mostly epicormic
38	Quercus Iobata	10		22	9	6	13	18	90	S		Р	Α		х	X					Х	Mi			В	С	Α	С	data for live trunk; 34" trunk failed @ 8'; fencing damaged, minor dieback
41	Quercus berberidifolia	3, 4, 4, 6.5, 6.5		15	6	8	14	13	40	S		Р	s	X	Х	X	X	x			Х	Ex			D	D	Р	D	old tag 36; 80% dead
89	Quercus berberidifolia	6.8, 7.3		15	22	24	0	18	90	S	N	P	Α	X	x						X	Мо			B-	B-	F	B-	old 107, adjacent to GG





Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	S	w	% Canopy Cover	Terrain Flat∖Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
102	Quercus Iobata	29		45	26	22	19	22	70	S		Α	Α	х	Х	Х					Х	Мо			В	В	Α	В	old tag 129
103	Quercus berberidifolia	4.5, 6.2, 9, 8.5		18	16	10	14	13	75	S		Р	F	X	X	X					X	Мо			С	С		С	old 145
112	Quercus berberidifolia	5.7, 6.4, 6.9		14	12	13	15	13	70	S		Р	S	x	Х	Х					Х	Мо	х		С	С	F	С	no old tag, LDC 112
113	Quercus berberidifolia	7, 5.1		14	18	0	0	15	80	S		Р	Α	х	Х	Х					Х	Mi	Х		В	С	Α	В-	old 131, nest
115	Quercus berberidifolia	7.8, 7.3		15	14	10	17	18	90	S		Р	Α	X	X	X					X	Mi			В	В	Α	В	old 149
116	Quercus berberidifolia	10.7, 3.5, 2.1, 4.3		14	8	12	14	18	50	S		Р	S	X	X	X	Х				X	Мо			С	С	Р	С	old 148, needs tag, sparse, small leaves
117	Quercus berberidifolia	5, 10, 11		18	16	24	15	15	80	S		Р	Α	x	Х	Х					Х	Мо			С	С	F	С	old 150, three additional trunks now dead



Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	s	w	% Canopy Cover	Terrain Flat\Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
120	Quercus berberidifolia	3.9, 7, 7.5		18	12	6	6	13	70	S		Α	Α	х	Х	Х					Х	Мо			С	D	F	C-	south trunk broken
125	Quercus berberidifolia	5.2, 7.1, 9.6, 10.4		15	16	12	8	12	35	S		Р	S	X	X						х	Ex			С	C-	Р	С	Old 48, mostly epicormic growth
129	Quercus berberidifolia	15		15	15	14	16	15	50	S		Р	S	X	x	X					Х	Мо			C+	C+	F	C+	old 41
131	Quercus berberidifolia	5.7, 8, 7.8, 7.8		15	14	8	8	5																	С	С		С	old 42
141	Quercus agrifolia	35.5		30	17	17	23	31	75	S		Α	Α	X	x	x					X	Мо			В	D	F	С	old 214; in power line easement, 32" trunk is codom at 6 ft; HOB; hollow trunk; vigorous basal sprouts; fire scars; good callousing; good canopy recovery
156	Quercus berberidifolia	9 @ 3.5'		25	23	12	10	20																	C-	C-	F	C-	old tag 158, HOB, significant dieback on south and east, recovery growth noted on north and west





Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	S	w	% Canopy Cover	Terrain Flat\Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
157	Quercus berberidifolia	4, 4, 4.5, 5.5, 8		20	12	12	15	18																	В	В	Α	В	old tag 157, 3 old trunks gone/cut
163	Quercus Iobata	18.5, 23.2		40	24	18	24	28	80	S		Α	Α	Х	X	X					X	Мо			B-	С	F	C+	large HOB
164	Quercus berberidifolia	3.5, 4, 3.8, 3 x 5", 5.5", 3 x 6"		15	15	18	22	15	90	S		Р	Α	x	Х	х					x	Mi			В	В	Α	В	НОВ
168	Quercus Iobata	28.7		30	29	33	25	24	50	S		Р	S	x	Х	Х						Ex			С	C-	F	C-	needs tag
170	Quercus Iobata	21.5		25	17	28	16	13	50	S		Р	S	x	Х	х						Ex			С	С	F	С	only minor epicormic, HOB
172	Quercus lobata	13.3, 16.1		30	23	42	40	7	80	S	N	Α	Α	x	Х							Mi			B-	B-	F	B-	



Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	S	w	% Canopy Cover	Terrain Flat\Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
173	Quercus Iobata	23.2 @ 4'		28	32	28	26	27	75	S		Р	Α	x	X							Мо			В	В	Α	В	low branch; good recovery from drought; much epicormic and tip growth
9501	Quercus Iobata	8.8		30	12	6	10	15	75	S		Α	S	Х	х						X	Mi			С	С	F	С	moderate dieback, epicormic growth
9502	Quercus berberidifolia	4.8, 4.6, 5, 6.1, 5.4, 4.4, 5.3, 6.4		18	20	18	20	18	80	S		Α	Α	X	X	X					Х	Mi			B-	В	F	В	new tree, LDC 32 or 36, woodrat nest at base; old fire damage
9503	Quercus berberidifolia	6, 4.7, 6.7		16	20	25	15	10	50	S	Е	Р	S	X	X	X					X	Ex	x		C-	С	F	C-	stump sprouts, woodrat nest
9504	Quercus berberidifolia	3.5,4,4.2,4.7,5.2 ,5.3,6,6,6.2,6.5, 8		18	27	28	18	15	60	S		Р	S	X	X						х	Мо			С	С	F	С	old 181 & LDC 145; woodrat nest at base
9505	Quercus berberidifolia	1,1,1,1,1,5.5, 6.5		14	22	18	14	23	80	S		Р	Α	х	Х	Х					Х	Мо			С	С	Α	С	



Tag Number	Botanical Name	DBH(s)	Heritage	Height	N	E	s	w	% Canopy Cover	Terrain Flat\Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks/Stems	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Fire Damage (New or Old)	Dieback (Mi,Mo,Ex)	Shaded Out	Pest / Disease	Health	Structure	Vigor (E,A,F,P)	Overall	Comments
9506	Quercus agrifolia	8.6		20	8	10	10	8	70	S		А	A									Mi			A-	B+	Α	B+	On slope above gas station
9507	Quercus lobata	9.1		25	12	12	12	12	90	F		Α	Α	X								Mi			Α	В	Α	A-	south of powerline, mitigation tree
9508	Quercus Iobata	8.4		16	5	5	7	7	35	S	А	Α	S	x	х							Мо			В-	В-	F	В-	was H & II, moderate dieback, sparse, no tag

DBH = diameter of the trunk or trunks at breast height (4.5 feet from grade)
Canopy compass directions are recorded in feet and are approximate
C/g = canopy to grade measurement in feet
Wound wood development – P = Poor, A = Average, E = Excellent
Foliage Density – D = Dense, A = Average, S = Sparse
Age Class – Y = Young, SM = Semi-mature, M = Mature, OM = Over-mature
Dieback – Mi = Minor, MO = Moderate, Ex = Extensive
Pest/Disease – Mi = Minor, Mo = Moderate, Ex = Extensive
Health & Structure Grades – Definitions are at the end of this report.
Vigor – P=poor, F=fair, A=average, E=excellent
OTR = Oak Tree Report





#### APPENDIX II – DEAD OAK TREE INVENTORY TABLE



#### DEAD OAK TREE INVENTORY TABLE

Tag No.	Common Name	Botanical Name	DBH(s) (inches)	Heritage	Comments
17	valley oak	Quercus lobata	13, 15.5, 16, 21		old tag 10, under power lines, fallen dead
20	valley oak	Quercus lobata	24.5		old tag 12, TW #25, fallen dead; under power lines
21	valley oak	Quercus lobata	26		fallen dead, off-site
26	valley oak	Quercus lobata	31		fallen dead
27	valley oak	Quercus lobata	25		dead
39	valley oak	Quercus lobata	38	Х	standing dead; HOB; no access
40	valley oak	Quercus lobata	2, 9		fallen dead
42	valley oak	Quercus lobata	17, 18		standing dead; fence - no access
43	valley oak	Quercus lobata	31		fence - no access, standing dead, collapsing



Tag No.	Common Name	Botanical Name	DBH(s) (inches)	Heritage	Comments
87	valley oak	Quercus lobata	34		standing dead, breaking apart, bees
106	scrub oak	Quercus berberidifolia	1, 2, 3, 3, 6, 6		old 142, fallen dead
108	scrub oak	Quercus berberidifolia	6, 6.5		fallen dead
109	scrub oak	Quercus berberidifolia	1, 6, 6.5		old tag 134
111	scrub oak	Quercus berberidifolia	6, 6		fallen dead
118	valley oak	Quercus lobata	29		old 151, standing dead
122	scrub oak	Quercus berberidifolia	3, 7, 7		old 51, standing dead; woodrat nest at base
126	scrub oak	Quercus berberidifolia	6, 6		old 47; collapsed dead; next to another collapsed dead oak (4.9", 5") not in inventory
128	scrub oak	Quercus berberidifolia	3, 4, 6, 6		collapsed dead



Tag No.	Common Name	Botanical Name	DBH(s) (inches)	Heritage	Comments
130	scrub oak	Quercus berberidifolia	2, 5, 14.5		old 43, bees, standing dead
155	scrub oak	Quercus berberidifolia			fallen dead, next to elderberry, holly- leaf cherry around it, no tag
165	valley oak	Quercus lobata	10		fallen dead, was dead in last LDC report also
166	valley oak	Quercus lobata	34		large cavity, dead
167	valley oak	Quercus lobata	20.5		standing dead, history of breakage
169	valley oak	Quercus lobata	27		standing dead
171	valley oak	Quercus lobata	23.5, 29		
K	valley oak	Quercus lobata	31		fallen dead



#### APPENDIX III - OAK TREE PHOTOGRAPHS



Tree No.9



Tree No.11

#### **OAK TREE PHOTOGRAPHS**



Tree No.10



Tree No.12







Tree No.14



Tree No.16



Tree No.15



Tree No.18





Tree No.19



Tree No.23



Tree No.22



Tree No.24



Tree No.25



Tree No.30



Tree No.28



Tree No.31



Tree No.32



Tree No.34



Tree No.33



Tree No.37



Tree No.38



Tree No.41



Tree No.89



Tree No.102



Trees No.112(L) & 113(R)



Tree No.103



Tree No.115



Tree No.116



Tree No.120 (PHOTO: 2017)



Tree No.117



Tree No.125 (PHOTO: 2019)



Tree No.125 (PHOTO: 2017)



Tree No.129 (PHOTO: 2017)



Tree No.131 (Photo: 2017)



Tree No.141



Tree No.156



Tree No.157





Tree No.163



Tree No.164



Tree No.168



Tree No. 170



Tree No.173



Tree No.172



Tree No. 9501





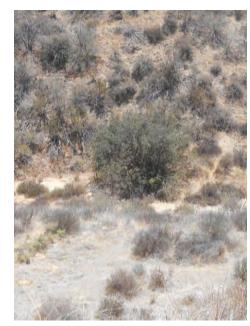
Tree No.9502



Tree No.9504 (L)



Tree No.9503



Tree No.9505



Tree No.9506



Tree No.9507



Tree No.9508



#### APPENDIX IV – COUNTY OF LOS ANGELES OAK TREE MANAGEMENT & PRESERVATION GUIDELINES



#### COUNTY OF LOS ANGELES OAK TREE MANAGEMENT & PRESERVATION GUIDELINES

An important component of oak tree management and preservation relates to the management of the preserved and newly-planted mitigation trees during construction and after the development is in place. Oak trees are sensitive to changes in their environment and improper irrigation, soil compaction and/or disturbances to the roots can result in the decline in health and eventual loss of the tree. The following guidelines are recommended to successfully maintain preserved and mitigation trees during and after project implementation.

- Irrigation Established oaks are adapted to xeric (dry) conditions and do not need summer water at all. However, turf areas associated with landscaping do require frequent irrigation. Excessive dry season irrigation within the drip line of existing trees will promote the growth of Oak Root Fungus (Armillaria mellea). This fungus occurs naturally and grows more rapidly under wet conditions, such as during the winter months. Under normal conditions, the subsequent dry season keeps the fungus under control. Moisture around the base of the tree in the warm summer season not only allows the fungus to survive, but the combination of warmth and extra moisture fosters fungus growth. Prolonged fungus attack promotes oak tree decline and eventual death. Supplemental irrigation should only be considered during periods of prolonged drought. Therefore, turf areas and associated irrigation systems should be planned so as not to encroach within the dripline of an existing oak tree. Water should never be allowed to spray onto, or pond around, the trunk of an oak tree. Oak leaf litter should be allowed to accumulate in the area directly under a protected tree. Moisture meters should be used to gage irrigation cycles; deep, infrequent irrigation is best for trees. Irrigation should penetrate to a minimum of 12 inches during a deep watering cycle.
- <u>Establishment irrigation</u> Young oak trees often need initial irrigation to establish successfully after planting. Irrigation for replacement trees shall follow the schedule described by the Arborist of Record.
- <u>Fencing</u> As previously indicated, the area surrounding the dripline of established trees shall be fenced for the duration of construction. Except for approved encroachment trees, fencing shall be no closer than 5 feet to the outer drip line boundary or 15 feet to the trunk of any protected tree, whichever is greater. (Given the nature of the current land use, the County Forester may allow for modification of the fencing requirement.)
- <u>Drainage</u> Natural drainage courses and natural grades around existing oak trees should not be altered. Surface runoff from adjacent areas shall be directed away from preservation areas and shall not increase runoff to those areas. Water shall not be allowed to pond or accumulate within the drip line of any oak tree
- Pruning Existing oak trees shall not be pruned, except as necessary for public health and safety.
   Pruning of live tissue over two inches (2") in diameter requires an Oak Tree Permit. Removal of dead wood is exempt from the requirement to obtain a permit. Pruning should always serve a specific purpose; oaks do not need routine pruning every year or two for "crown cleaning or lacing."
- <u>Fuel Modification</u> All fuel modification requirements such as selective clearing, pruning, and wet zones shall be limited within the drip line of any individual oak tree
- Weed Control Use of soil sterilizers shall be prohibited under and around existing oak trees. Sterilizers
  may leach into the root system and kill the tree. Use of pre-emergent weed killers shall be prohibited
  within 100 feet of any individual oak tree or within a natural drainage that seasonally irrigates oak trees
- <u>Vegetation Near Existing Oaks</u> Where applicable, all cut and fill slopes adjacent to the existing oak
  trees shall be vegetated with native species that require little water to become established and little or
  no irrigation once established. Landscaping under oaks is not recommended, except as outlined in
  Compatible Plants under and Around Oaks.





- Other Considerations Dust that accumulates on the foliage of the preserved oak tree due to nearby construction should be periodically hosed-off as recommended by the project's consulting arborist.
- Regular visual assessment trees should be regularly inspected by a qualified arborist. Risk assessments, structural pruning, support mechanisms, or removal may be warranted for trees that exhibit signs of structural defects adjacent to areas where targets are present. Trees with a "C" grade for "Health" and / or "Structure" generally exhibit characteristics that should be routinely monitored.
- <u>Mulch</u> mulch or bark chips are beneficial for reducing compaction and moderating soil temperature under trees. Also, mulch provides nutrients to the soil as it breaks down.



#### Insert Pocket for full size OAK TREE IMPACT EXHIBIT & PROTECTION PLAN

Color Copy 24" X 36" (9 SHEETS)







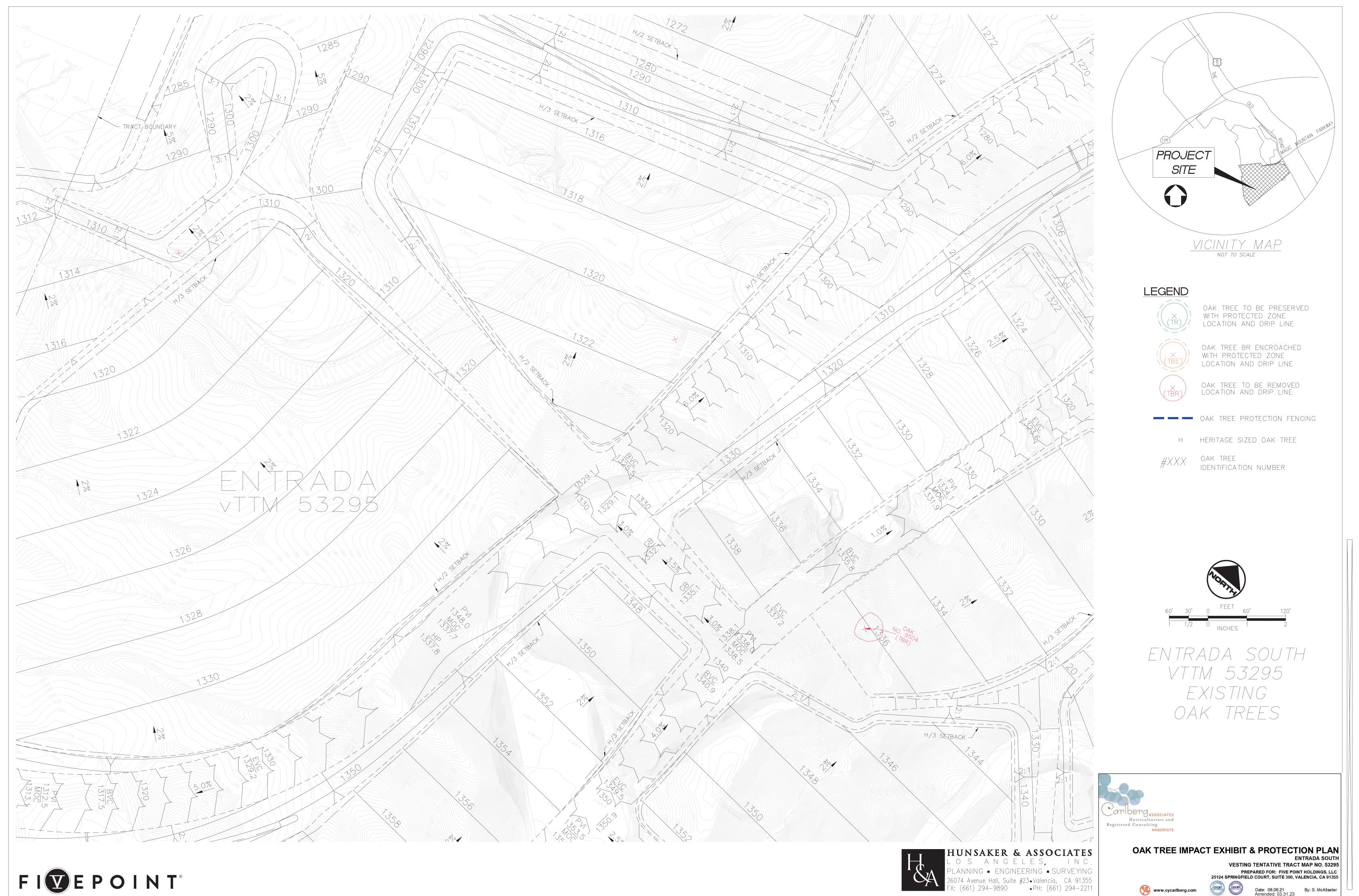




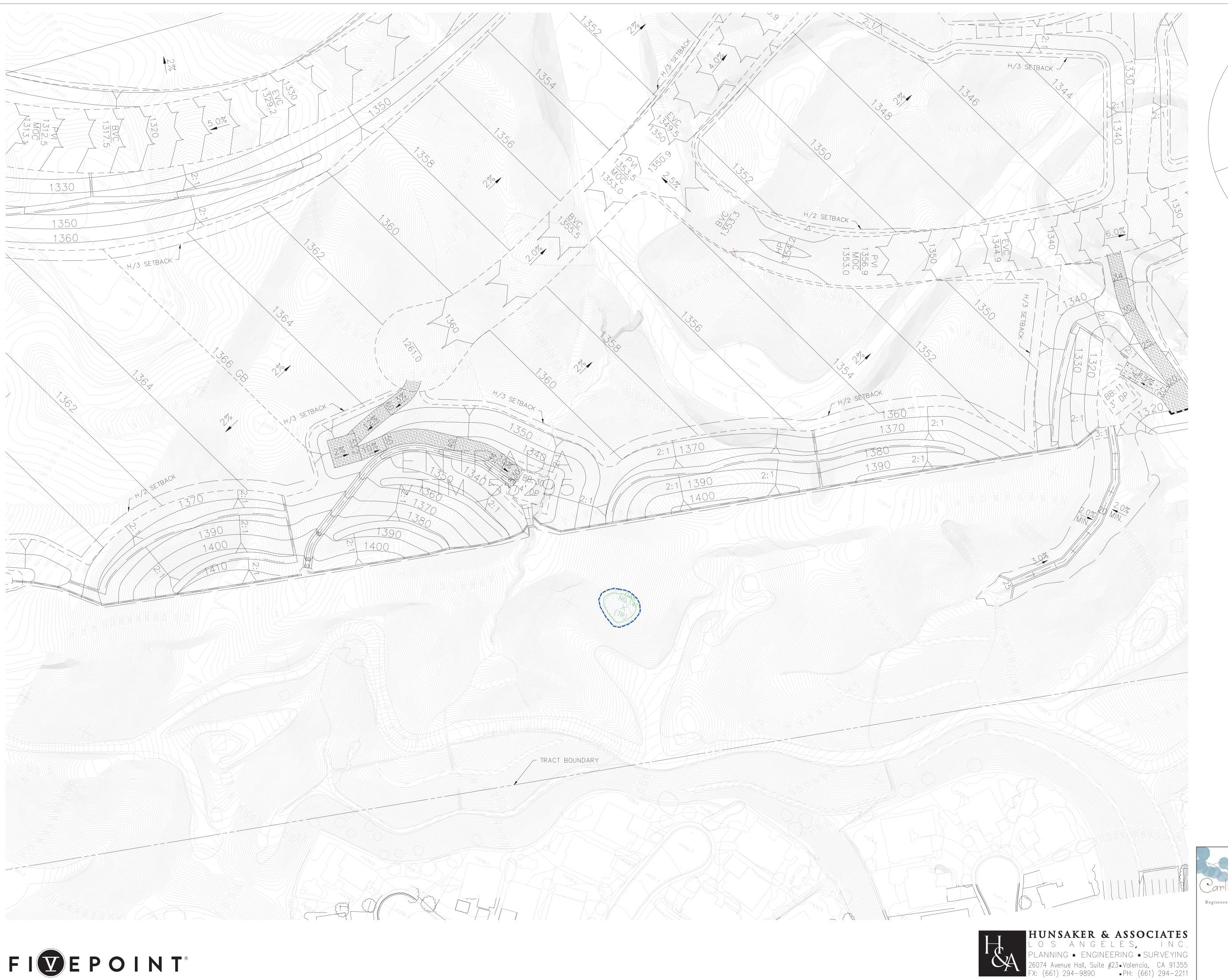


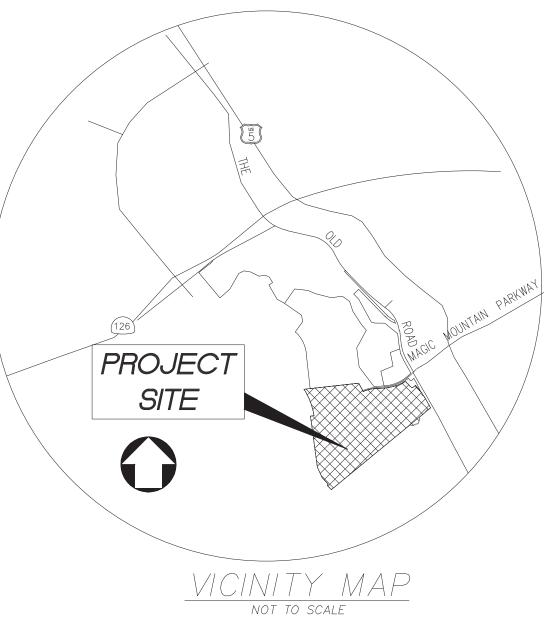
HES060-06.dwg





HES060-08.dwg





#### LEGEND



OAK TREE TO BE PRESERVED WITH PROTECTED ZONE LOCATION AND DRIP LINE



OAK TREE BR ENCROACHED WITH PROTECTED ZONE LOCATION AND DRIP LINE

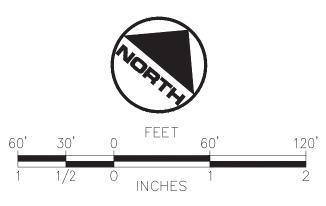


- OAK TREE PROTECTION FENCING

H HERITAGE SIZED OAK TREE



OAK TREE IDENTIFICATION NUMBER



ENTRADA SOUTH VTTM 53295 EXISTING OAK TREES



#### OAK TREE IMPACT EXHIBIT & PROTECTION PLAN

VESTING TENTATIVE TRACT MAP NO. 53295

PREPARED FOR: FIVE POINT HOLDINGS, LLC
25124 SPRINGFIELD COURT, SUITE 300, VALENCIA, CA 91355





HES060-09.dwg