Land Design Consultants, "Entrada Oak Tree Report" (February 2007)
PART 1 OF 4

LAND DESIGN CONSULTANTS, Inc.
Land Planning, Civil Engineering, Surveying & Environmental Services

LDC
www.ldcla.com

OAK TREE REPORT

"ENTRADA"

V.T.T.M. No 53295

LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services

LDC
www.ldcla.com

Oak Tree Report

"ENTRADA"

V.T.T.M. No 53295

February 21, 2007

PREPARED
FOR

Newhall Land

23823 Valencia Blvd.
Valencia, CA 91355

Project: 97001-011

199 South Los Robles Avenue, Suite 250, Pasadena, CA 91101
Tel: 626.578.7000 Fax: 626.578.7373

25570 Rye Canyon Road, Suite G, Valencia, CA 91355
Tel: 661.775.3940 Fax: 626.661.3942

TABLE OF CONTENTS

INTRODUCTION

The following report describes the general condition and potential impacts to the 124 ordinance-sized oak trees located within the proposed development area or within 200 feet of the proposed grading (project area) associated with Vesting Tentative Tract Map (V.T.T.M.) 53295 in the Magic Mountain area of unincorporated Los Angeles County. The subject property occupies approximately 844 acres of vacant land that is located just southwest of the junction of Highway 126 and Interstate 5 (Golden State Freeway). The property wraps around the eastern, southern, and northern boundaries of Six Flags Magic Mountain amusement park. The eastern portion of the property is primarily bordered by The Old Road and a portion of Freemill Road. The northern boundary of the property is adjacent to The Old Road and Henry Mayo Drive. Segments of the western limit of the property are along Newhall Ranch and the southern section is along undeveloped terrain south of the amusement park. The Santa Clara River runs through the northerly portion of the property.

The majority of the surveyed oaks onsite or within 200 feet of the proposed impacted areas are valley oaks (*Quercus lobata*), totaling eighty-one (81) trees. Scrub oaks (*Q. berberidifolia)* comprise of thirty-six (36) trees of the total, with the exception of two (2) *Q. lobata-berberidifolia* hybrids. The five (5) remaining oaks found onsite are coast live oaks, *Quercus agrifolia*. In addition to the ordinance sized trees discussed herein, there are in excess of 200 additional non-ordinance size oak trees on the property or within the 200 foot buffer envelope. Many of the oak trees onsite showed signs of past fire damage.

Of the 124 ordinance-sized oak trees surveyed for this report, eighty-one (81) trees are proposed for removal, twelve (12) trees will potentially have an encroachment into their protected zone, and thirty-one (31) trees will remain with no impact. Fifteen (15) of the 124 surveyed oak trees (#2, 3, 9, 12, 29, 39, 44, 71, 73, 74, 75, 76, 79, 84, and 162 - all *Q. lobata*) qualify as heritage oak trees based on their trunk diameter. Four (4) heritage trees (#2, 9, 12, and 44) are proposed to be saved with no impacts or encroachment into their protected zone. Two (2) heritage trees (#39 and 73) will be encroached upon due to implementation of the project. Nine (9) heritage trees (#3, 29, 71, 74, 75, 76, 79, 84 and

162) are proposed for removal.

Of the 124 oaks surveyed, two (2) trees (2%) have an overall grade of "A" based on their excellent health and aesthetics. Sixty (60) oak trees (48%) received a "B" grade and forty-four (44) oaks (35%) earned a "C' grade at the time of the surveys. Due mostly to fire damage and its effects, seventeen (17) oak trees (13%) received a "D" grade because of failing health and one (1) oak received an "F". This report identifies the extent of the potential impacts and recommends management and/or mitigation measures where appropriate.

Two other oak tree permits (one pending) are associated with projects located in the immediate vicinity of the project area. The Oak Tree Permit (OTP) numbers associated with those cases are: existing OTP 87-561 and pending OTP 04-180. The oaks associated with existing OTP 87-561 were evaluated during the field survey of the project area and were tagged and numbered (trees #45-64 and 78) but are not included in this report. Since OTP 04-180 is pending, the oaks associated with this permit are included in this report in the event that OTP 04-180 is not approved or if this project is approved prior to the approval of OTP 04-180.

DEFINITIONS & SURVEY METHOD

The County of Los Angeles has established the Oak Tree Permit, in part, "…to recognize oak trees as significant historical, aesthetic and ecological resources, and as one of the most picturesque trees in Los Angeles County, lending beauty and charm to the natural and manmade landscape, enhancing the value of property, and the character of the communities in which they exist; and to create favorable conditions for the preservation and propagation of this unique, threatened plant heritage, particularly those trees which may be classified as heritage oak trees, for the benefit of current and future residents of Los Angeles County." (Ord. 88-0157 § 1, 1988: Ord. 82-0168 § 2 (part), 1982.) An Oak Tree Permit is required prior to cutting, destroying, removing, relocating, inflicting damage, or encroaching into the protected zone of any tree of the oak genus, which is eight (8) inches or more in diameter for a single trunk-tree, or whose two largest

combined trunks equal 12 inches in diameter as measured 4 ½ feet above mean natural grade (22.56.2060 (A)). The protected zone includes the area within the dripline of an oak tree and extends to a point at least five feet outside the dripline, or 15 feet from the trunk of a tree, whichever distance is greater (22.56.2060 (C)).

Due to the anticipated length of time it will take before the proposed project is approved and the potential for the current Oak Tree Guidelines to change in that timeframe, the applicant requested that those oaks measuring six (6) inches or more in diameter for a single-trunk tree, or whose two largest combined trunks equal 10 inches in diameter or greater be included in this survey. A complete evaluation of these non-ordinance size trees was performed and the trees were tagged and numbered. Therefore, numerous tree numbers are purposely omitted here since the tree numbers shown in the table below are only those trees that are currently ordinance size that will be impacted by V.T.T.M. 53295. This accounts for the discontinuity in the tree numbering herein.

In the County of Los Angeles, trees with a diameter breast height (DBH) of 36" or more are considered to be "heritage" trees. However, trees that do not meet this criterion may be classified as heritage trees by the County of Los Angeles if the tree has been determined to have "significant historical or cultural importance to the community". Fifteen (15) of the 124 surveyed oak trees for this report meet the 36"-diameter size requirement for heritage (H) trees.

This oak tree report complies with the requirements set forth in 22.56.2090 (F)(1a-f), which indicates that the report evaluate the physical structure, aesthetics, and health of each tree in the development area or within 200 feet of the proposed development. In this case, "development" refers to selective grading in areas designated for such uses as residential lots, commercial lots, slopes, future streets, etc. In addition, the area within 12 feet of the daylight grading line was included as potential impact area to allow for equipment access and backcut or remedial grading contingencies.

The oak trees were visually surveyed and tagged by LDC in the field over several weeks from November 9, 2004 through November 17, 2004 and on January 31, 2005. The trees were numbered and tagged with a circular metal tag 1½" in diameter that, unless otherwise noted on the field data sheets, was placed on the north side of the trunk at breast height. The trees were briefly resurveyed on November 21, 2006 to check for any removals or mortalities within the two years since the initial surveys.

Each tree was evaluated for a variety of health, structural, and aesthetic qualities as indicated on the field inspection worksheets in Appendix I. The tree number, location, canopy, and protected zone of each tree are mapped on the enclosed "Oak Tree Location & Impact Map". The map includes five (5) sheets; Sheet 1 is a 300-scale (1" = 300') index map of the entire site. Sheets 2, 3 4 & 5 are 100' scale portions of the site. The following discussion expands on the information summarized in the field survey worksheets attached in Appendix I.

Trunk diameter is measured at "diameter breast height" (DBH), approximately 4½ feet (54") above the natural grade. This measurement is most appropriate for trees with vertical growth forms. Oak trees often have large lateral branches diverging from the trunk at or near 4½ feet. Measuring a tree of this type at exactly 4½ feet above natural grade would often result in an inaccurate impression of tree size. For trees that exhibit lateral branching at DBH, the trunk diameter measurement is made at the nearest point where the measurement can be accomplished without being impeded by the branches. For multi-trunk trees, the number of trunks and the diameter (DBH) of each trunk is recorded.

Evaluation of canopy characteristics includes two sets of measurement: the dripline radius and the height of the branch from the natural grade at the dripline. The dripline radius is measured along a line extending from the center of the trunk outward in four magnetic compass directions. The measurement is made from the outer edge of the trunk to the outermost living part of the tree. In some cases, where a tree has several trunks growing in a ring, the dripline radius is measured from the center of the ring. Use of this

measurement is noted under comments and notes when used. In order to determine branch height, a measurement is taken from the lowest living leaf on a branch to the natural grade for each compass direction. Leaves on small sucker stems growing directly from the trunk are not used for branch height measurements. The canopy-spread measurement is the maximum canopy diameter of the tree in question.

Tree injuries leave the tree vulnerable to many potential sources of damage and disease. Insect pests will take advantage of an injury to invade exposed wood and cambium. Some fungi, which break down wood, will also take advantage of a wound to enter the tree. These fungi will result in the softening of the wood called heart rot. Heart rot, in combination with the activities of insects, animals and/or fire, will eventually produce cavities in the trunk or major branches of the tree.

Structural stability also affects the potential survival of a tree. Trees that are structurally unstable are assumed to have a shorter potential life span than structurally stable trees. Oaks frequently grow in loose soil on steep slopes; this soil is prone to down slope movement, resulting in trees that have been undermined and lean precariously down hill. The action of streams, as described above, also results in unstable trees. Young oaks are highly phototropic (growing toward light). In woodland environment this trait often causes young trees to grow toward an opening in the canopy that may be far from directly overhead, resulting in a poorly balanced tree. Another common cause of structural instability is severe cavitations or mechanical damage as described above.

The most common health problem affecting oak trees is some form of biological infestation. Almost all oak trees have sub-critical infestations of one type or another. Only when the tree has been severely injured are the infesting organisms able to invade the tree and become a severe problem. Termites are one of the most common pests to utilize oak trees as a food source. Termites eat only dead wood and must enter the tree through an opening in the bark or root. Most oaks have a limited (and usually harmless) number of termites in the smaller terminal twigs and branches that have died. Wood boring beetles are similar to termites in their requirements and have a similar affect on

the tree. Only when the infestation becomes severe do wood eating insects pose a threat to the tree. However, beetles that eat cambium can be a serious threat to a tree even in small numbers. Cambium eaters can easily kill a small branch or trunk by girdling the structure and curtailing the flow of nutrients through the cambium.

There are a host of other insects and arthropods, which utilize oaks in a variety of ways. In natural situations these potential threats are kept in check by abundant natural enemies and the oak's natural protective features. Climbing plants, though not technically an infestation, are also included in this category.

INFLUENCE OF CONSTRUCTION-RELATED ACTIVITIES

Soil compaction inhibits the natural exchange of gases between the feeder roots and the atmosphere and restricts water percolation to the root zone. This alteration of the gas and water balance in the soil can inhibit the growth of the oaks, weaken them and make them more susceptible to disease. This soil compaction under a tree can cause serious root damage and crown loss over an extended period of time.

Grade-changes within the drip line and root zone of the oaks may directly lead to injury or death of the tree. Removing soil around oak trees may result in the shallow feeder roots being cut, damaged, or exposed by the scraping away of topsoil. This may reduce the tree's ability to take up water and nutrients from the soil. The placement of soil under oak trees, on the other hand, may cover the feeder root system and reduce soil aeration and gas exchange to the roots. When deprived of oxygen, the roots of oak trees can suffocate resulting in death of the tree.

Changes to the site's drainage pattern and/or water table may have a negative effect on oak trees. The placement of fill material beyond the tree's canopy may result in change in drainage or water movement so that soil under the tree becomes saturated, which may result in the weakening of the tree and an increased susceptibility to crown or root rot. Extensive cuts away from trees may also change drainage patterns and cause the soil to dry more rapidly in the summer. The result can be insufficient moisture available to the

trees. This lack of available water may result in the death of the tree or may weaken the tree causing a greater susceptibility to disease.

Each tree was assigned two letter grades, one health rating and one aesthetic and conformity rating. The health and aesthetic ratings of the trees are based on the archetype tree of the same species through a subjective evaluation of its health, aesthetic value, and ecological value. The health of the tree depends on the level of damage caused by infestation of various pests including termites, wood boring beetles, cambium eating beetles, fungus of various types, climbing plants, and parasitic plants (i.e., mistletoe), or fire.

While the aesthetic value of a tree is subjective, a tree is usually considered highly aesthetic if it has generally dense foliage, a relatively uniform or spectacular irregular shape, and large size. Ecological value is based on many factors, not all of which have a positive correlation with the health and aesthetic value of the tree. Most important is the likelihood that the tree will continue to survive.

The following criteria were used to establish each grade:

"A" = Outstanding:

> Exceptional trees, mostly of large size, of good growth form with often large spreading crown, exhibiting very good to excellent health with mostly normal necrosis and a minimum of pathological symptoms and a minimum of fire damage. Some of these trees may have some trunk cavitation and some disease symptoms, but these are not considered detrimental to the overall health of the tree. The trees are large and overall attractive.

"B" = Above Average:

> Good to very good trees but either not of large size or tending to show some necrotic or pathological symptoms or minor fire damage. Most of these trees have some dieback and may have some brooming (regrowth) and all have normal amounts of normal stem dieback. These are basically good trees with a strong

potential for continued survival.

"C" = Average:

Average, moderately good trees whose growth habit and pathological or fire-induced symptoms indicate an equal chance to either decline or continue in the future. Most of these trees would have moderate stem and branch dieback, some bark exfoliation, or stem cavitation with rot, and relatively moderate fire damage. They may also show various amounts of insect damage to leaves etc. or are impacted and shaded or crowded by adjacent trees in such a way that it is expected to negatively affect the tree.

"D" = Below Average/Poor

Declining trees with a reduced chance of survival due to excessive fire damage, or strong-stem or branch dieback caused by crowding, shading or various pathological conditions. These would not be expected to survive over the long term and generally show partial foliage. However, some may show sucker shoots or crown-sprouting that have developed after the fire and are expected to survive over the long term.

"F" = Dead:

This tree exhibits no signs of life whatsoever.

PROJECT IMPACTS

The applicant is proposing the development of a mixed-used project on 695 lots, including 3,438 dwelling units, on the 843.9-acre site. Illustrated on the Oak Tree Location Map are the location and canopies of the ordinance-sized oak trees located within the development area or within 200 feet of the proposed grading. One-hundred twenty-four (124) surveyed and tagged ordinance-sized oak trees fell within this limit. **Thirty-one (31) oak trees will remain with no impact, twelve (12) are proposed to have temporary or permanent encroachments within their protected zone, and eighty-one (81) oak trees are proposed for removal.**

Twenty-four of the surveyed oaks onsite were removed after the November 2004 surveys but prior to the November 2006 surveys. Twenty-two of these trees were approved for removal under previous permits associated with the project. Two trees (#66 and 163) had not yet been permitted for removal, although Tree #66 was a half-inch below ordinance size (7.5" DBH) at the time of the 2004 surveys and was therefore not protected by the Los Angeles County oak tree ordinance at that time. Tree #163 had DBH's of 23" and 16.5" (39.5" DBH cumulative) with an overall grade of "B" at the time of the 2004 survey. This tree was being proposed for removal and will be mitigated for as specified in this report.

In addition, Tree #101 died during the time between the 2004 and 2006 surveys. This oak had previously received a "C+" overall grade. The protected zone of this tree had been encroached upon by grading activity that had occurred after the 2004 surveys. Other ordinance-sized oak trees with grading activity within their protected zones included #88-131, 155-157, 164, and 165. While all of these trees are proposed for removal, they have yet to be permitted for impacts.

The following table summarizes the proposed status of each tree. The species is noted after the tree number in a code. The overall grade for each tree is also noted. The comment column gives a brief explanation of the proposed reason for impact, be it removal or encroachment. See the notes at the bottom of the summary table for a key to the species and impact status.

Table 1 – Summary of Oak Trees for "Entrada" - V.T.T.M. 53295

Tree No.	Species	DBH (inches)	Overall Grade	Impact Status			Comment
				N I	R	E	
2(H)	QL	40.5	D	x			(Encroached under CUP 03-360)
3(H)	QL	37.5	B+		x		Slope associated with Lot 586
4	QL	21.5	B		x		Slope associated with Lot 586
5	QL	24, 21	B		x		Slope associated with Lot 586
6	QL	22	B+				Slope associated with Lot 586
8	QL	30	C-			x	Encr. 2' into PZ for construction activity and retaining wall for Lot 550
9(H)	QL	36	C	x			
10	QL	14, 14	B	x			
11	QL	18	B	x			

Table 1 – Summary of Oak Trees for "Entrada" - V.T.T.M. 53295							
Tree No.	**Species**	**DBH (inches)**	**Overall Grade**	**Impact Status**			**Comment**
				N I	**R**	**E**	
12(H)	QL	44, 21	C	✓			
13	QL	24	D		✓		Grading associated with Lot 561
14	QL	24	B	✓			
15	QL	13	C	✓			
16	QL	24	B	✓			
17	QL	15.5, 16, 13, 21	C	✓			
18	QL	25.5	B	✓			
19	QL	17.5	B	✓			
20	QL	25	B	✓			
21	QL	23	B-	✓			
22	QL	12.5	B+	✓			
23	QL	32.5	B+	✓			
24	QL	28	B	✓			
25	QL	8, 24.5	B	✓			
26	QL	32	C			✓	Encr. 14' into PZ for grading associated with Lot 550
27	QL	28	B		✓		Grading associated with Lots 553 & 554
28	QL	24.5	B		✓		Grading associated with Lot 554
29(H)	QL	46	B+		✓		Grading associated with Magic Mtn. Pkwy. Ext. & grading for Lot 586
30	QL	28.5	B		✓		Grading associated with Lot 549
31	QL	30	C-		✓		Grading associated with Lot 545 & 546
32*	QL	21	B+	✓			Potential temp. encroachment because within construction buffer (grading limits are 11' from PZ) adjacent to Lot 634
33	QL	16, 14, 17	B+	✓			
34	QL	13, 11, 11, 11.5	D			✓	Encr. 6' into PZ for slope associated with Lot 634
37	QA	26	B		✓		Grading associated with Lot 537
38	QL	8.5, 34	B			✓	Within buffer for grading of Lot 590 (grading limits at edge of PZ)
39(H)	QL	38	B+			✓	Within buffer for grading of Lot 590 (grading limits 6' from PZ)
40	QA	9, 2	D	✓			
41	QA	6, 6, 5.5, 4	C-			✓	Within buffer for grading of Lot 590 (grading limits at edge of PZ)
42	QL	17, 18	C-			✓	Within buffer for grading of Lot 590 (grading limits 5' from PZ)
43	QL	31	B+			✓	Encr. 6' into PZ for grading of Lot 590
44(H)	QL	53	C	✓			
65	QL	21	B		✓		Grading associated with Lot 677
67	QL	20	B		✓		Grading associated with Lot 677
68	QL	19	B+		✓		Grading associated with Lot 677
69	QL	25	C+		✓		Slope associated with Lot 673
70	QL	15	B		✓		Grading associated with Lot 673
71(H)	QL	14.5, 36	B-		✓		Grading associated with Lots 674 & 665
72	QL	29.5	C		✓		Grading associated with Lots 662 & 663
73(H)	QL	43	C-			✓	Encr. 16' into PZ for grading associated with Lot 657 & adjacent street
74(H)	QL	48.5	C		✓		Grading associated with Lot 637
75(H)	QL	56	C+		✓		Grading associated with Lot 654
76(H)	QL	44	C-		✓		Grading associated with Lot 637
77	QL	24.5	C		✓		Grading associated with Lot 660
79(H)	QL	42.5	B		✓		Grading associated with Lot 643 & 644

Table 1 – Summary of Oak Trees for "Entrada" - V.T.T.M. 53295							
Tree No.	**Species**	**DBH (inches)**	**Overall Grade**	**Impact Status**			**Comment**
				N I	**R**	**E**	
80	QL	32	B		✓		Grading associated with Lot 642
81	QL	8.5	C		✓		Grading associated with Lot 642
82	QL	18, 11.5	B		✓		Grading associated with Lot 642
83	QL	23.5	C-		✓		Grading associated with Lot 641
84(H)	QL	42	B		✓		Grading associated with Lot 640
85	QLB	8.5, 3.5, 2, 4, 3	C-		✓		Grading associated with Lot 640
86	QLB	12, 7	C		✓		Grading associated with Lot 640
87	QL	34	C			✓	Encr. 6' into PZ for grading assoc. with Lot 638
88	QB	6, 6	C+		✓		Grading associated with Lot 75
89	QB	6, 6	B-		✓		Grading associated with Lot 74
90	QB	6, 4, 8.5	B-		✓		Grading associated with Lot 74
97	QB	7.5, 2.5, 4.5	C		✓		Grading associated with Lot 67
100	QB	6, 6	B-		✓		Grading associated with Lot 67
101	QB	4.5, 6.5, 5.5	F		✓		Grading associated with Lot 66. OAK HAS DIED SINCE LAST SURVEY; there is grading activity surrounding tree that occurred between 2004 & 2006 surveys. Tree had previously received an overall grade of "C+" in 2004.
102	QL	26	B+		✓		Grading associated with Lot 66
103	QB	6, 6.5, 9, 4	C		✓		Grading associated with Lot 67
106	QB	6, 2, 1, 6, 3, 3	C-		✓		Grading associated with Lot 67
108	QB	6, 6.5	D		✓		Grading associated with Lot 67
109	QB	6, 6.5, 1	B-		✓		Grading associated with Lot 67
111	QB	6, 6	C		✓		Grading associated with Lot 67
113	QB	7.5, 4.5	C-		✓		Grading associated with Lot 67
115	QB	6, 8	B-		✓		Grading associated with Lot 67
116	QB	10, 4, 2, 2, 1.5	D		✓		Grading associated with Lot 67
117	QB	3.5, 6.5, 9.5, 10, 2	C		✓		Grading associated with Lot 67
118	QB	27.5	B		✓		Grading associated with Lot 66
120	QB	6.5, 4, 7	B		✓		Grading associated with Lot 74
122	QB	3, 7, 7	D		✓		Grading associated with Lot 74
124	QB	6, 6, 2, 5	D		✓		Grading associated with Lot 74
125	QB	6, 8.5, 9.5	B		✓		Grading associated with Lot 74
126	QB	6, 6	C		✓		Grading associated with Lot 74
128	QB	6, 6, 4, 3	D		✓		Grading associated with Lots 73 & 74
129	QB	12	C		✓		Grading associated with Lot 73
130	QB	14.5, 2, 5	C-		✓		Grading associated with Lots 73 & 74
131	QB	7, 5.5, 7.5, 7.5	C		✓		Grading associated with Lots 73 & 74
132	QL	15.5, 16.5	A		✓		Grading assoc. with Westridge Pkwy.
134	QB	4.5, 4.5, 6, 5, 3, 6, 5	B-		✓		Grading assoc. with Westridge Pkwy.
136	QL	18, 15	B-		✓		Grading for J Street and Lots 116 & 117
137	QB	8.5, 9	B		✓		Grading for J Street and Lots 116 & 117
141	QA	32, 25, 11	D	✓			
143	QB	5.5, 4, 3, 4, 3.5, 6, 5, 6, 5, 3.5	C+		✓		Grading associated with Lot 396
144	QB	7, 2.5, 2, 9.5	C		✓		Grading associated with Lot 301
145	QB	6(2), 6.5,	D		✓		Grading associated with Lot 285

Table 1 – Summary of Oak Trees for "Entrada" - V.T.T.M. 53295

Tree No.	Species	DBH (inches)	Overall Grade	Impact Status			Comment
				N I	R	E	
		5, 4(4) 5.5(2) 3.5(3)					
150	QB	5, 5, 7	C		✓		Slope associated with Lot 98
152	QL	12	D		✓		Slope associated with Lot 61
153	QL	10, 14	B		✓		Grading associated with Lot 528
154	QB	10	D		✓		Grading associated with Magic Mtn. Pkwy. extension
155	QB	6, 6.5, 10	C		✓		Grading associated with Lot 68
156	QB	3, 6, 3.5(3), 5, 2, 6.5	C-		✓		Grading for parking lot associated with PA 3
157	QB	8.5	C-		✓		Grading associated with Lot 68
158	QL	18, 12	C-	✓			
159	QL	19.5, 17, 20, 12	C	✓			
160	QA	8	B+	✓			
161	QL	32	A			✓	PZ within 6' of proposed buried bank stabilization north of Lot 693
162(H)	QL	45	B		✓		Grading assoc. with Rec. Building adjacent to Lot 28
163	QL	23, 16.5	B		✓		Grading associated with Lot 66. OAK HAS BEEN REMOVED. No prior permit associated with this tree.
164	QB	6(3), 5(3), 5.5, 4.5(3)	D		✓		Grading associated with Lot 66
165	QL	12	D		✓		Grading associated with Lot 75
166	QL	32.5	C-		✓		Grading associated with Lot 75
167	QL	21	C		✓		Grading associated with Lot 75
168	QL	28	B		✓		Grading associated with Lot 75
169	QL	26	B		✓		Grading associated with Lot 75
170	QL	21	B		✓		Grading associated with Lot 75
171	QL	25, 33	D		✓		Slope associated with Lot 80
172	QL	15, 11.5	D		✓		Slope associated with Lot 80
173	QL	21.5	B-			✓	Encr. 10' into PZ for slope associated with Lot 80
174	QL	13.5	B-	✓			
175	QL	21	B-	✓			
176	QL	14.5	B-	✓			
177	QL	22	B	✓			
178	QL	20	B-	✓			
179	QL	11	C-	✓			
TOTAL				**31**	**81**	**12**	

NI = NO IMPACT R = REMOVAL E = ENCROACHMENT

(H) = Heritage tree DBH = Diameter at Breast Height

QB = *Q. berberidifolia* QLB = *Q. lobata-berberidifolia* hybrid QA = *Q. agrifolia* QL = *Q. lobata*

* = *Potential encroachment due to possible overexcavation and/or backcut associated with adjacent slope (12' buffer)*

MITIGATION MEASURES

Eighty-one (81) of the 124 oak trees surveyed are proposed for removal. Twelve (12) oak trees will sustain permanent or temporary encroachments within their protected zones. Therefore, special care must be taken during grading to minimize impacts to the tree roots and canopy in the protected zone. Implementation of the following measures will insure that the roots and canopy in the protected zone will not be significantly affected.

1. The applicant shall be responsible for notifying the County Forester of any changes in the scope of the work and shall insure that all work is performed in accordance with applicable ordinances, permits and procedures. Work performed within the protected zones of the trees shall be preceded by not less than 48 hours notice to the County Forester and the project's oak tree consultant (certified arborist).
2. **The applicant shall plant a minimum of 234, 15-gallon minimum replacement oak trees within the open space areas of VTTM 53295 to replace the 81 removal trees (2:1 ratio for non-heritage & 10:1 ratio for heritage).** The mitigation trees shall consist of a combination of indigenous scrub oaks, coast live oaks and valley oaks. The applicant shall be responsible for the monitoring and maintenance of the replacement trees for a minimum of two years. If the replacement trees die during the two-year period, the applicant shall plant new replacement trees and the two-year monitoring period shall begin again from the date of that planting.
3. Although included in the report as removals due to their proximity to grading activities, all attempts will be made by the applicant to save Trees #3 and 4, if soils conditions allow during final engineering and site development.
4. Due to the nature of Trees #85 and 86 (*Q. lobata-berberidifolia* hybrid), the applicant shall relocate these trees to an appropriate open space area of the site, if structurally sound at the time of project implementation. The relocation site shall be to the satisfaction of the County Forester. In addition, the applicant shall collect acorns from these trees to grow additional hybrids for use in the mitigation area. If relocation is not feasible, the trees shall be replaced at 2:1 ratio as stated in No. 2

above.

5. All work in the protected zone of the trees approved for encroachment must be done using hand implements only; the use of mechanized tools is prohibited except where absolutely necessary AND as approved by the County Forester. All work conducted within the protected zone of the oak trees shall be performed in the presence of the applicant's oak tree consultant. The protected zone shall commence from a point five (5) feet outside of the dripline and extend inwards to the trunk of the tree. In no case shall the protected zone be less than fifteen (15) feet from the trunk of an oak tree.

6. Equipment, materials, and vehicles shall not be stored, parked or operated within the protected zone of an oak tree, except on the already improved road base for work that is being performed at the time in the immediate vicinity.

7. Preservation and encroachment trees may benefit from supplemental irrigation prior to and during construction. The monitoring arborist shall recommend an irrigation regimen if necessary.

8. Removal of the natural leaf mulch within the protected zone of the project oak trees is prohibited except where absolutely necessary AND as approved by the project's oak tree consultant.

9. All trees not approved for removal shall be fenced in accordance with County of Los Angeles guidelines prior to commencement of grading operations, and shall remain fenced until the County Forester approves removal of fencing. Encroachment trees shall also be fenced until the actual encroachment work is performed. At that time, the fencing shall be moved to the limit of the encroachment.

10. Any pruning, including dead wooding, shall be performed in compliance with the latest ANSI pruning standards by a certified arborist (or certified tree worker).

11. Root-pruning within the protected zone shall be reduced to the minimum amount that is absolutely necessary. All roots pruned shall consist of clean, 90º-angle cuts utilizing sharp hand tools and shall not be sealed unless directed by the County Forester. Any major roots (2" or greater in diameter) encountered shall be preserved to the extent possible, wrapped in moist burlap, until the soil is replaced. Soil shall be

replaced as soon as possible around preserved roots.

12. Dust accumulation on the canopy of the preserved and encroached trees shall be washed off at the direction of the monitoring arborist.

13. Upon completion of the work associated with this permit, a four to six-inch layer of certified mulch shall be placed around the protected zone of the encroachment trees. Where feasible, the native leaf litter should be retained and used as the mulching material.

14. Within 10 working days of completion of the work approved under this permit, the oak tree consultant shall provide a project certification letter to the County Forester. The applicant shall be responsible for notifying and coordinating all conditions with the County and the project's oak tree consultant.

Disclaimer:

This report represents the independent opinion of the signatory consultant (Land Design Consultants, Inc.). The trees discussed herein were generally reviewed for physical, biological function, and aesthetic conditions. This examination was conducted in accordance with presently accepted industry procedures, which are a ground-plane macro-visual observation only. No extensive micro-biological, soil-root excavations, upper crown examination, nor internal tree investigations were conducted and therefore, the reporting herein reflects the overall visual appearance of the trees on the date(s) reviewed and no warranty is implied to the potential failure, health, or demise of any part or whole of any tree described in the report. Records may not remain accurate after our inspection due to unknown causes of changeable deterioration of the reviewed site.

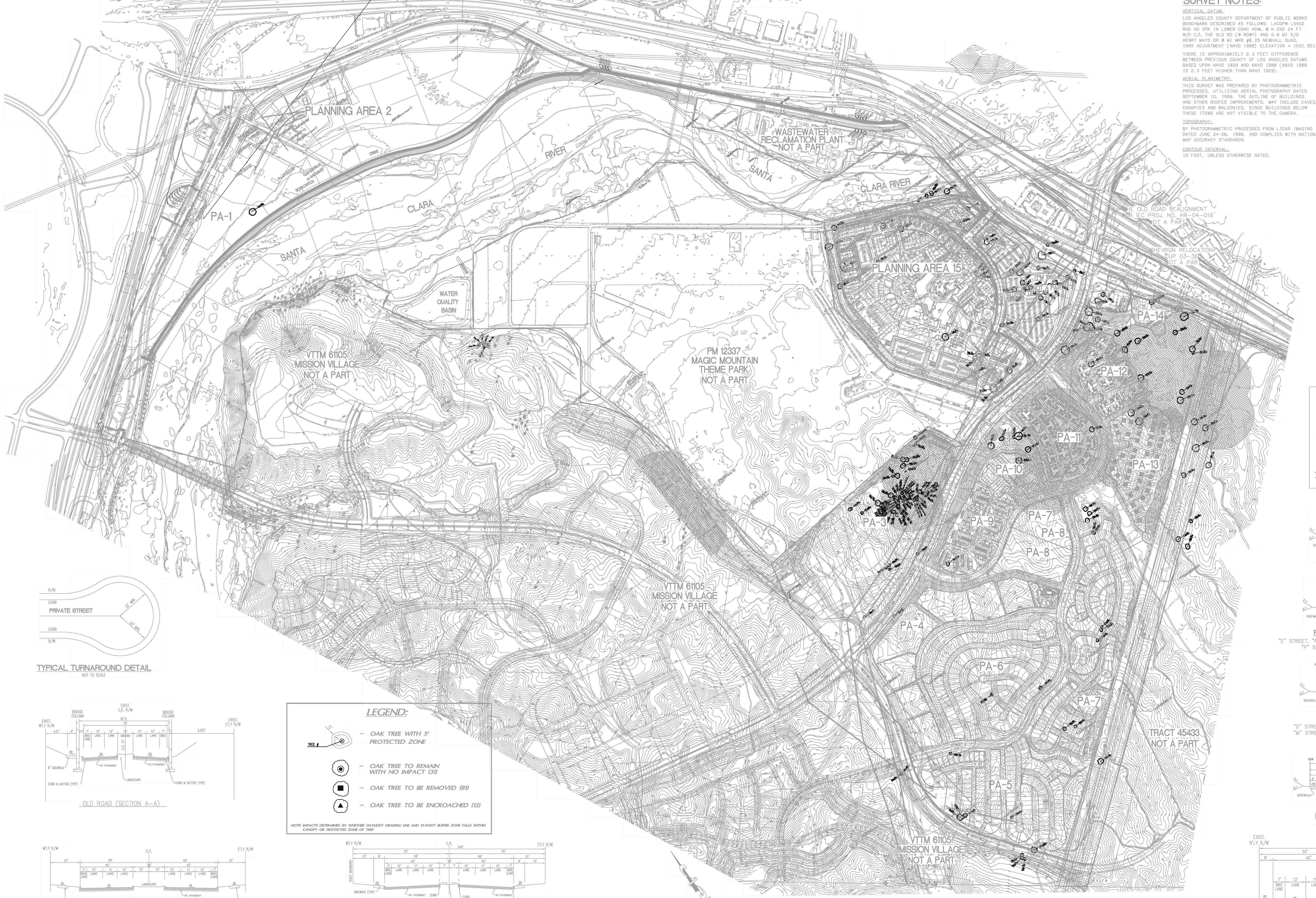
Respectfully submitted,

LAND DESIGN CONSULTANTS, INC.

Scott McAllaster
Project Planner
ISA Certified Arborist, WE 7011A

APPENDIX I

FIELD INSPECTION WORKSHEETS



TYPICAL TURNAROUND DETAIL

NOT TO SCALE

LEGEND:

- OAK TREE WITH 5' PROTECTED ZONE
- OAK TREE TO REMAIN WITH NO IMPACT (31)
- OAK TREE TO BE REMOVED (81)
- OAK TREE TO BE ENCROACHED (12)

NOTE: IMPACTS DETERMINED BY WHETHER DAYLIGHT GRADING LINE AND 12-FOOT BUFFER ZONE FALLS WITHIN CANOPY OR PROTECTED ZONE OF TREE

OLD ROAD (SECTION A-A)

SECTION B-B

TYPICAL SECTION - THE OLD ROAD

SECTION - THE OLD ROAD (SECTION C-C)

TYPICAL SECTION - HENRY MAYO DRIVE (SECTION A-A)

FROM COMMERCE CENTER DRIVE TO THE OLD ROAD

SURVEY NOTES:

VERTICAL DATUM:

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS BENCHMARK DESCRIBED AS FOLLOWS: LACDPW L5402 RND HD SPK IN LOWER CONC HDWL @ N END 24 FT W/O C/L THE OLD RD (W RDWY) AND 0.6 MI S/O HENRY MAYO DR @ MI MKR #6.25 NEWHALL QUAD, 1995 ADJUSTMENT (NAVD 1988) ELEVATION = 1031.951

THERE IS APPROXIMATELY 2.3 FEET DIFFERENCE BETWEEN PREVIOUS COUNTY OF LOS ANGELES DATUMS BASED UPON NAVD 1929 AND NAVD 1988 (NAVD 1988 IS 2.3 FEET HIGHER THAN NAVD 1929).

AERIAL PLANIMETRY:

THIS SURVEY WAS PREPARED BY PHOTOGRAMMETRIC PROCESSES, UTILIZING AERIAL PHOTOGRAPHY DATED SEPTEMBER 10, 1999. THE OUTLINE OF BUILDINGS AND OTHER ROOFED IMPROVEMENTS, MAY INCLUDE EAVES, CANOPIES AND BALCONIES, SINCE BUILDINGS BELOW THESE ITEMS ARE NOT VISIBLE TO THE CAMERA.

TOPOGRAPHY:

BY PHOTOGRAMMETRIC PROCESSES FROM LIDAR IMAGING DATED JUNE 24-26, 1998, AND COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS.

CONTOUR INTERVAL:

10 FOOT, UNLESS OTHERWISE NOTED.

GENERAL NOTES:

1. GRADE ELEVATIONS SHOWN ON THE VTTM ARE APPROXIMATE. THE ELEVATIONS MAY MAY CHANGE BY 10 FEET. ELEVATION CHANGES MAY BE GREATER THAN 10 FEET BUT ONLY IF DETERMINED BY DPW AND DRP THAT THE REVISIONS ARE CONSISTENT WITH THE INTENT OF THE SUBDIVISION MAP APPROVAL.
2. LOT LINES CAN BE ADJUSTED PROVIDED NO ADDITIONAL LOTS ARE CREATED (EXCEPT FOR OPEN SPACE LOTS). THE DEGREE OF ADJUSTMENT IS WITHIN THE DISCRETION OF THE SUBDIVIDER PROVIDED SUCH ADJUSTMENTS ARE CONSISTENT WITH THE STATE SUBDIVISION MAP ACT.
3. ALIGNMENT AND GEOMETRICS OF STREETS ARE APPROXIMATE. ADJUSTMENTS CAN BE MADE PROVIDED DPW AND DRP DETERMINE THAT THE ADJUSTMENTS ARE CONSISTENT WITH THE INTENT OF THE SUBDIVISION APPROVAL.
4. BUILDING FOOTPRINTS THAT ARE SHOWN ON THE SUBDIVISION MAP OR ACCOMPANYING EXHIBIT MAP ARE ONLY FOR ILLUSTRATIVE PURPOSES. ACTUAL BUILDING LOCATIONS AND FOOTPRINTS MAY VARY AND WILL BE REVIEWED DURING PLOT PLAN APPROVAL AND SHALL BE GRANTED PROVIDED THE PROPOSED BUILDING SATISFIES ALL EXISTING CODES AND ORDINANCES. THIS MINOR CHANGE DOES NOT, HOWEVER, INCLUDE THE CHANGE IN PROPOSED LAND USE OR RESIDENTIAL HOUSING PRODUCT.
5. PERMISSION IS REQUESTED TO FILE "LARGE LOT" PARCEL MAPS OF 20 ACRES OR MORE (WITHOUT IMPROVEMENTS) OR 5 ACRES OR MORE (WITH IMPROVEMENTS) AS SPECIFIED IN THE COUNTY SUBDIVISION CODE.
6. THE RECORDATION OF A "LARGE LOT" PARCEL MAP SHALL NOT REQUIRE THE OBLIGATION OF FEES, DEDICATIONS (E.G., RIGHTS-OF-WAY OR PARKS), EXACTIONS, OR INFRASTRUCTURE AS MAY BE OTHERWISE REQUIRED FOR THE SUBDIVISION, EXCEPT AS MAY BE REQUIRED BY CHAPTER 21.32 OF THE SUBDIVISION CODE.
7. THE RECORDATION OF A "LARGE LOT" PARCEL MAP SHALL BE CONSIDERED THE FILING OF THE FIRST UNIT FOR THE PURPOSE OF TIME EXTENSIONS PURSUANT TO THE SUBDIVISION MAP ACT.
8. PERMISSION IS REQUESTED FOR UNIT PHASING.
9. PERMISSION IS REQUESTED TO COMBINE LOTS.
10. PERMISSION IS REQUESTED TO RECORD ADDITIONAL OPEN SPACE LOTS.
11. TRAIL LOCATIONS CAN BE RE-LOCATED THROUGH AN INFORMATION ONLY MAP.
12. THE LOCATIONS OF APPURTENANT STRUCTURES (e.g., WATER WELLS, PASEOS, PEDESTRIAN BRIDGES, TRANSIT SHELTERS, WATER QUALITY BASINS, ETC.) MAY BE RELOCATED THROUGH AN INFORMATION ONLY MAP.
13. PERMISSION TO RECORD JOINT ACCESS EASEMENTS (20' WIDE) AS LOTS REQUESTED.
14. PERMISSION REQUESTED TO MASS/BULK GRADE.
15. PROPOSED STREET GRADING IS APPROXIMATE ONLY AND SUBJECT TO ADJUSTMENTS PENDING DETERMINATION OF FINAL DEVELOPMENT LAYOUT AND PLANS.
16. PROVIDE STANDARD PROPERTY LINE RETURN RADIUS OF 13 FEET AT ALL LOCAL STREET INTERSECTIONS INCLUDING INTERSECTION OF LOCAL STREETS WITH PLANNED HIGHWAYS (THOSE ON THE COUNTY HIGHWAY PLAN). 27 FEET WHERE ALL PLANNED HIGHWAYS INTERSECT, OR 25 FEET WHERE ONE OF THE ROADS SERVES A COMMERCIAL OR INDUSTRIAL DEVELOPMENT, OR TO THE SATISFACTION OF PUBLIC WORKS.
17. MODIFIED STREET CROSS-SECTIONS AS SHOWN ON VESTING TENTATIVE TRACT MAP ARE REQUESTED. HOWEVER, PERMISSION IS SOUGHT TO CONSTRUCT STANDARD AND ALTERNATE STREET CROSS-SECTIONS AT THE DISCRETION OF THE SUBDIVIDER.
18. ALL DIMENSIONS SHOWN ARE APPROXIMATE.
19. TOPO COMPILED 6/98 FROM DATA FLOWN 6/98.

SPECIAL NOTES:

1. WATER QUALITY BASINS AND CDS UNITS WILL PROVIDE FOR TREATMENT OF STORM WATER RUN OFF
2. THE WATER QUALITY BASINS SHALL BE DEDICATED TO THE COUNTY WHEN COMPLETED AND ACCEPTED.
3. PROPOSED RECLAIMED WATER LINES WILL BE LOCATED IN PUBLIC STREETS AND TRAILS.

TYPICAL TRAFFIC CALMING INTERSECTION

RESIDENTIAL CUL DE SAC (R/W = 51')

"C" STREET

RESIDENTIAL CUL DE SAC (R/W = 58')

"E" STREET, "F" STREET, "G" STREET, "H" STREET, "M" STREET, "N" STREET, "P" STREET, "Q" STREET, "R" STREET, "S" STREET, "W" STREET

RESIDENTIAL LOCAL (R/W = 60')

"D" STREET, "I" STREET, "J" STREET, "K" STREET, "L" STREET, "M" STREET, "P" STREET, "T" STREET, "U" STREET, "V" STREET

RESIDENTIAL COLLECTOR (R/W = 64')

"A" STREET, "X" STREET

LEGEND:

- Lot 1 — LOT NO.
- 10,000 SF — LOT AREA (SQUARE FEET)
- 1010.0 — PAD ELEVATION
- PROJECT BOUNDARY
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED UTILITY EASEMENT
- EXISTING EASEMENT
- FUTURE RIGHT OF WAY
- 1000 — PROPOSED CONTOUR
- DAYLIGHT LINE
- SD — STORM DRAIN
- SS — SANITARY SEWER
- W — WATER
- STORM DRAIN INLET/OUTLET
- CATCH BASIN
- SD — EXISTING STORM DRAIN LINE
- S — EXISTING SEWER LINE
- W — EXISTING WATER LINE
- O — EXISTING OIL LINE
- G — EXISTING GAS LINE
- OE — EXISTING OVERHEAD POWER LINE
- EXISTING POWER POLE
- SEA — SEA, RIVER CORRIDOR LINE
- FEMA — FEMA LINE
- Q50 — Q-CAP LIMIT LINE
- 404_1603 LIMIT LINE
- PEDESTRIAN/BIKING TRAIL AND CHANNEL ACCESS
- BURIED BANK STABILIZATION
- EQUESTRIAN/HIKING TRAIL
- SIGHT DISTANCE LINE
- EXISTING OIL WELL LOCATION
- OAK NO. XX TBI — OAK TREE TO BE TO BE IMPACTED
- OAK NO. XX TBR — OAK TREE TO BE TO BE REMOVED

ABBREVIATIONS:

ac	ACRES
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
EX	EXISTING
FF	FINISH FLOOR
FM	FORCE MAIN
FW	FIRE WATER
GB	GRADE BREAK
HP	HIGH POINT
L	LENGTH
MIN	MINIMUM
P.C.C.	PORTLAND CEMENT CONCRETE
PROP	PROPOSED
R	RADIUS
R/W	RIGHT OF WAY
SF	SQUARE FOOT
SD	STORM DRAIN
SS	SANITARY SEWER
STD	STANDARD
TBI	TO BE IMPACTED
TBR	TO BE REMOVED
W	WATER

PROJECT SUMMARY:

GROSS AREA: 843.9 Acres

TOTAL LOTS: 695

TOTAL D.U.: 3,438 DU

EXISTING ZONING: M-1.5, A-2-5, C-3 AND SP

PROPOSED ZONING: M-1.5-DP, RPD, C-2-DP AND SP

GENERAL PLAN LAND USE: M - INDUSTRY, W - FLOODWAY/FLOODPLAIN, HM - HILLSIDE MANAGEMENT, N1 - NONURBAN (0.5 DU/AC), U1 - URBAN (LOW DENSITY RESIDENTIAL) 1.1 - 3.3 DU/AC, C - COMMERCIAL, AND SIGNIFICANT ECOLOGICAL AREA

PROPOSED LAND USE: M, C, U2, U3 AND U4

ESTIMATED EARTHWORK 9,800,000 CY CUT 9,800,000 CY FILL

TYPICAL STREET SECTION (R/W = 80')

"B" STREET

TYPICAL STREET SECTION (R/W = 84')

ENTERTAINMENT DRIVE

TYPICAL STREET SECTION (R/W = 94')

SKY VIEW LANE

TYPICAL STREET SECTION (R/W = 105')

MEDIA CENTER DRIVE

MAGIC MOUNTAIN PARKWAY (R/W = 134')

FROM THEME PARK ENTRANCE TO WESTRIDGE PARKWAY

VICINITY MAP

NOT TO SCALE

Lot Numbers	No. of Lots	Type (Use)	Dwelling Units	Commercial SF	Total Acres
Planning Area 1					
1-4	4	CONDOMINIUM	408		20.0
Planning Area 2					
5-40	35	COMMERCIAL		1,130,350	106.2
41	1	FLOOD CONTROL			17.3
42-43	2	OPEN SPACE (TRAIL)			2.9
44-56	13	OPEN SPACE (RIVER)			208.9
57	1	WATER QUALITY BASIN			9.7
		PUBLIC STREET			9.0
Planning Area 3					
58	1	FIRE STATION			2.7
59-76	18	COMMERCIAL		488,600	44.0
77-84	8	OPEN SPACE			7.1
Planning Area 4					
85-91	7	CONDOMINIUM	163		19.3
Planning Area 5					
92-155, 160-236	141	SINGLE-FAMILY 46'x100' MIN.	141		19.8
156	1	RECREATION CENTER			0.5
157-159	3	OPEN SPACE			0.2
Planning Area 6					
237-357	121	SINGLE-FAMILY 50'x110' MIN.	121		19.5
358-359	2	OPEN SPACE			0.1
Planning Area 7					
360-525	166	SINGLE-FAMILY 40'x90' MIN.	166		20.1
Planning Area 8					
526	1	PARK SITE			5.0
527	1	SCHOOL SITE			7.0
Planning Area 9					
528-534	7	3-STORY CONDOMINIUM	261		11.5
Planning Area 10					
535-539	4	3&4-STORY CONDOMINIUM	273		7.0
Planning Area 11					
540-546	7	2&3-STORY 16-PLEX CONDO	272		13.0
Planning Area 12					
547-551	5	2&3-STORY 6-PLEX CONDO	144		10.3
Planning Area 13					
552-559	8	2&3-STORY CONDOMINIUM	184		14.1
Planning Area 14					
560-561	2	COMMERCIAL		51,000	2.9
Miscellaneous					
562	1	RECREATION CENTER			1.7
563-584	22	PRIVATE DRIVES			29.6
585-636	52	OPEN SPACE			137.4
		PUBLIC STREET			19.2
Planning Area 15					
637	1	PRIVATE DRIVE			4.4
638-639	2	OFFICE		113,000	2.2
640	1	PARKING STRUCTURE			1.6
641	1	PARKING STRUCTURE			2.2
642-643	2	COMMERCIAL		130,000	3.2
644-646	2	COMMERCIAL/OFFICE		259,500	4.7
647	1	PARKING STRUCTURE			2.0
648	1	COMMERCIAL		9,500	1.7
649	1	WATER FEATURE			1.8
650	1	4-STORY CONDOS OVER COMMERCIAL	153	169,000	5.7
651-658	8	4-STORY CONDOMINIUMS	300		4.1
659	1	PARKING STRUCTURE			1.4
660	1	COMMERCIAL		12,000	1.1
661	1	4-STORY CONDOS OVER P.S.	100		1.8
662-672	11	3-STORY CONDOMINIUMS	64		3.5
673	1	4-STORY CONDOS OVER P.S.	132		2.9
674	1	4-STORY CONDOS OVER P.S.	72		2.0
675	1	4-STORY CONDOS OVER P.S.	160		3.4
676	1	2-STORY CONDOMINIUMS	180		1.0
677-678	2	8-STORY HOTEL (300 ROOMS)		277,000	4.8
679	1	COMMERCIAL		73,000	1.1
680	1	16-STORY CONDOMINIUMS	144		0.7
681	1	COMMERCIAL/OFFICE		216,000	1.6
682	1	PARKING STRUCTURE			2.1
683-684	2	COMMERCIAL		30,000	1.7
685	1	WATER FEATURE			3.8
686-695		OPEN SPACE			7.5
		PUBLIC STREET			3.9
TOTAL	695		3,438	2,958,950	843.9

SOURCE:

ALLIANCE
(LAND PLANNING + ENGINEERING INC.)

DATE CHANGED | CHANGED BY | REVISION

OWNER/DEVELOPER:

NEWHALL LAND
23823 WEST VALENCIA BOULEVARD
VALENCIA, CALIFORNIA 91355
Ph.: (661) 255-4000

LEGAL DESCRIPTION:

THAT PORTION OF RANCHO SAN FRANCISCO, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP RECORDED IN BOOK 1 PAGES 521 PAGES 522 OF PATENTS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

OAK TREE LOCATION MAP

MAJOR LAND DIVISION

VESTING TENTATIVE TRACT MAP NO.

53295

LOCATED IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-05 CIVIL STATE OF CALIFORNIA

PREPARED BY:

LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
225 South Lake Avenue, Suite 600, Pasadena, California 91101
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

R.C.E. No. 21649, Robert. R. Sims

02/22/2007
Date

Proj. No. 97001-011

Sht 1 of 5

I:\CAD\0201\TENTATIVE MAP 53295-ALP\ENTRADA-TMAP-SHT-01.dwg