Appendix D

Arborist Report for the Harmon Ranch Project

HARMON RANCH
TREE INVENTORY AND ARBORIST REPORT

Prepared for:

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
Applicant	Lennar Homes of California LLC
City	City of Poway
DSH	diameter at standard height
GIS	geographic information systems
ISA	International Society of Arboriculture
project	Harmon Ranch Specific Plan and Tentative Map

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1 Introduction

Dudek evaluated and recorded information about regulated trees for the proposed Harmon Ranch Specific Plan and Tentative Map Project (project) in the City of Poway (City), California, and prepared this tree inventory and arborist report. Specifically, Dudek evaluated and recorded information about native trees as defined by Section 12.32.040 (Definitions) of the City's Municipal Code. Furthermore, this tree inventory and arborist report evaluates project-related impacts and provides recommendations for tree preservation, protection, and mitigation in accordance with the City's Municipal Code (City of Poway 2023). The project site is located in Poway, California, and, as such, this Arborist Report is prepared in accordance Chapter 12.32 of the City's Municipal Code.

Dudek's arborists, certified by the International Society of Arboriculture (ISA), performed various tasks associated with surveying, inventorying, and evaluating the condition of the site's trees, as described in the following sections. The purpose of this tree inventory and arborist report is to present the physical characteristics, mapped locations, impact and preservation totals, and appropriate mitigation for impacts to protected trees, if any occur. The tree quantities and related project impacts were analyzed and are reported in the following sections.

1.1 Site Description

The proposed project site is located within the southern area of the City, south of Poway Road and east of Pomerado Road (Figure 1). The approximately 11.5-acre project site comprises approximately 5.7 acres designated for residential development, a 0.25-acre historic home site, 3.2 acres of open space areas, 1.9 acres for private streets and 0.5 acres of public right-of-way (Oak Knoll Road). The 11.5-acre project site is currently designated Residential Single Family 7 (RS-7) in the Poway General Plan (City of Poway 1991), which permits single-family homes on a minimum of 4,500-square-foot lots and a maximum density of 8 dwelling units per acre (Figure 2). Surrounding land uses include a mix of retail land uses and the Kumeyaay Interpretive Center to the north; Oak Knoll Road, Poway Creek, and existing single-family homes to the south and east, which are also designated RS-7; and an apartment community to the west.

Throughout the site, topography ranges from about 440 to 510 feet above mean sea level. The northern portion of the project site previously containned a San Diego Gas & Electric storage yard and several small, uninhabited buildings. There is also a small drainage that runs through the northwestern corner of the site, which has steep drops at the associated cement culverts at either end; one culvert is along the western project boundary, and the other is along the northern project boundary. Also associated with the drainage is disturbed riparian and disturbed wetland habitat. The remainder of the northern portion of the project site consists primarily of disturbed habitat including non-native, invasive, and ornamental plant species.

The southern portion of the project boundary contains a small uninhabited residence and disturbed habitat adjacent to Oak Knoll Road. Further into the site, there are large stands of invasive *Arundo donax* that surround Poway Creek,which runs east–west through the southern portion of the project site. Along Poway Creek, there is also disturbed riparian habitat with a high proportion of non-native invasive plant species.

The current property owner is Harmon Family Trust. The majority of the site has been cleared for several years and was previously used as a construction staging yard for a San Diego Gas & Electric gas line project. The site includes four existing single-family residences. One of the existing homes is a locally designated historic building located at 12702 Oak Knoll Road (APN 317-500-14-00). The historic building was built in 1933 and is constructed of cobblestones. The building is presently designated as City of Poway Historical Site 113 and is documented and

known as the "Harmon House." The historic home will be retained in place within a 0.25-acre site as part of the project. The historic home site will be designated Residential – Historic Home within the Specific Plan.

1.2 Project Description

Lennar Homes of California LLC (Applicant) is proposing a residential neighborhood on an approximate 11.55-acre project site. The proposed project would include 64 single-family detached homes. The proposed project density (8.8 units/acre) is slightly higher than the 8.0 units/acre permitted in the existing RS-7 designation. Primary access to the project site is planned via existing Oak Knoll Road. Fifty-nine of the new homes are proposed to front newly constructed private streets, while four homes and an open space/overlook area front existing Oak Knoll Road. The existing historic home has direct access via Oak Knoll Road.

The Applicant is proposing a Specific Plan and Tentative Map to facilitate development of 64 single-family homes. The Harmon Ranch Specific Plan will establish three land use districts within the project site: Residential Single Family (R-SF); Open Space (OS); and Open Space Recreation (OS-R). The Specific Plan will also provide development regulations and permitted uses for each land use district. Appendix D, Land Use Plan, shows the proposed development in detail.

The proposed project is composed of 64 single-family homes on lots 42 feet wide and 85 to 90 feet deep, with standard two-car garages and 20-foot-deep by 20-foot-wide driveways to accommodate an additional two off-street parking spaces within the private lots and private fenced rear yards. The proposed project also includes 40 guest parking spaces along the private streets, approximately 1.0 acre of Open Space Recreation areas, approximately 2.2 acres of natural Open Space areas, and a segment of the General Plan Community Trail (approximately 1,000 feet) within the project site. A potential off-site trail connection to the adjacent retail area located to the north may occur in the future, subject to property owner cooperation, but is not part of the proposed project. The "overlook" area located in the south portion of the project site is planned to provide public access and will be privately maintained. Table 1 describes in detail the allocation of proposed land uses.

Table 1. Land Use Summary

Use/Land Use	Approx. Net Acres (AC)	Percent of Planning Area	Maximum Dwelling Units (DU)1	Density (DU/AC)2
Non-residential Land Uses				
Open Space (OS-1 & 2) (Floodway)	1.88	16.3%	N/A	N/A
Open Space (OS-3 & 4)	0.31	2.7%	N/A	N/A
Open Space Recreation (OSR-1 to 7)	0.99	8.6%	N/A	N/A
Subtotal Open Space	*3.18*	*27.6%*	*N/A*	*N/A*
Private Internal Residential Streets	1.88	16.3%	N/A	N/A
Oak Knoll Road right-of-way (existing)	0.49	4.3%	N/A	N/A
Subtotal Streets	*2.37*	*20.6%*	*N/A*	*N/A*
Subtotal Non-residential	*5.55*	*48.2%*	*N/A*	*N/A*
Residential (R) Land Use				
Residential Single Family (R-SF) (Lots 1 to 64)	5.96	51.8%	64	—
Subtotal Residential	*5.96*	*51.8%*	*64*	—
Total Specific Plan Area3	**11.51**	**100%**	**64**	**8.8**

Notes: N/A = does not apply.

1 Statistics are based upon preliminary design and may vary slightly from Development Plan, Tentative Map, and/or Final Map. Refer to Chapter 7 regarding substantial conformance.

2 Pursuant to State Law, local governments cannot preclude an Accessory Dwelling Unit (ADU) or Junior Accessory Dwelling Units (JADU). An ADU and JADU is an accessory use for the purposes of counting allowable density under general plan and zoning and is therefore not counted as an additional unit. An ADU and JADU shall be permissible in accordance with the PMC or, if the locally adopted ordinance is void, the State Government Code. See Section 3.2.2.G for information regarding ADUs.

3 Open Space areas within the floodway (OS-1 and OS-2) and public street (Oak Knoll Road) and internal private streets are excluded from the density calculation. The following calculation was utilized to determine the net residential density for the project: Residential (5.96 ac) + Open Space Recreation Lots 1-7 (0.99 ac) + Open Space Lots 3 and 4 (0.31 ac) = 7.26 ac. 64 / 7.26 = 8.8.

Discretionary actions that require Poway City Council consideration include the following:

- Environmental Impact Report
- General Plan Amendment/Zone Change from Residential Single-Family 7 (RS-7) to Planned Community (PC)
- Tentative Map
- Development Review Permit
- Final Map

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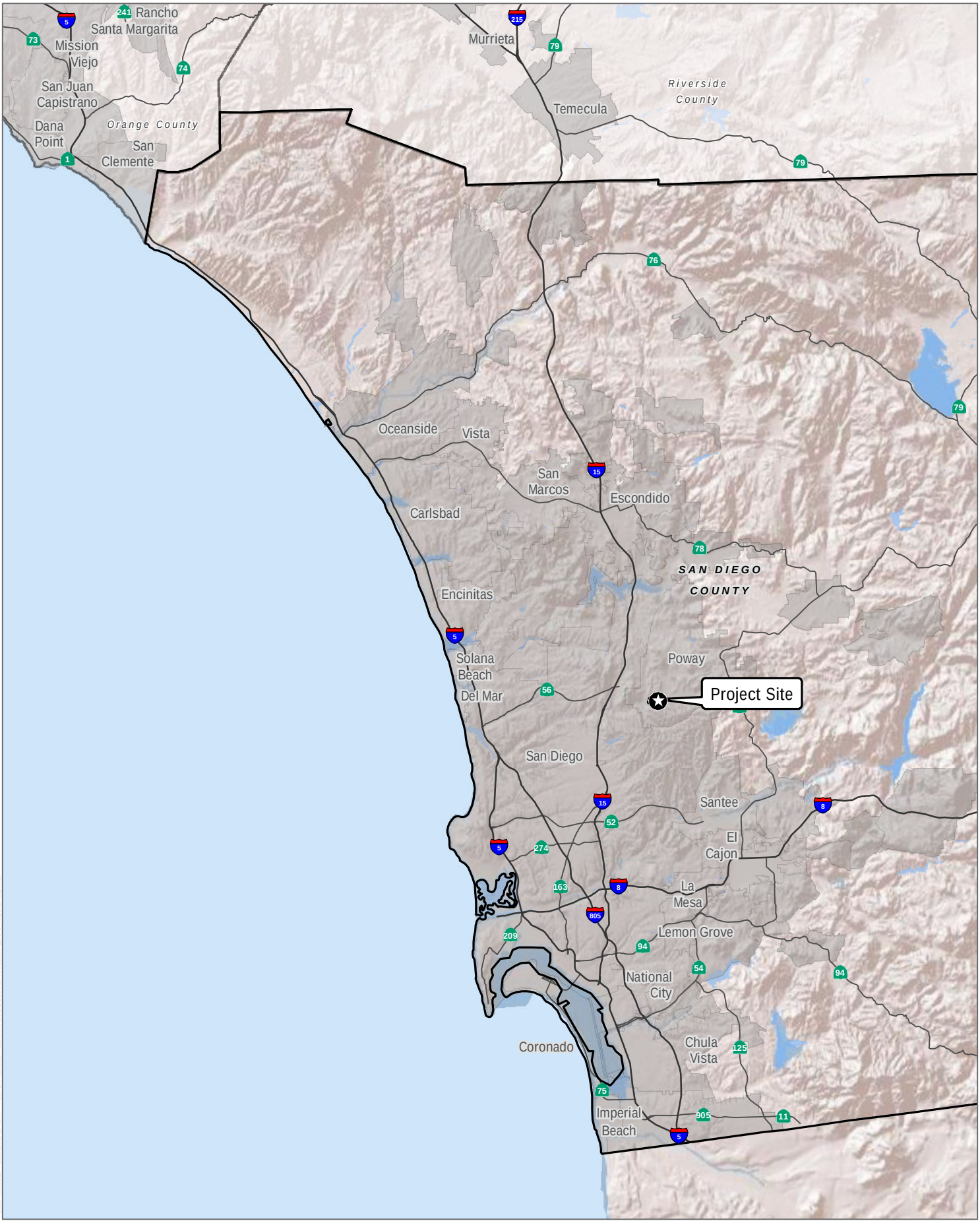

SOURCE: ESRI 2022

DUDEK

0 5 10 Miles

FIGURE 1

Regional Map

Harmon Ranch Project

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SOURCE: NAIP IMAGERY 2020

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0 75 150 Feet

FIGURE 2

Vicnity Map

Harmon Ranchl Project

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2 Methods

2.1 Individual Tree Evaluation

Consistent with Chapter 12.32 of the City's Municipal Code, this arborist report is based on information compiled through field reconnaissance and a review of appropriate site reference materials, including aerial photography, U.S. Geological Survey topographic maps, and digital ortho-quarter quadrangle data. Dudek ISA Certified Arborists conducted a tree survey on the project site on July 13, 2022.

Chapter 12.32 of the City's Municipal Code protects all "native" trees, as defined in Section 12.32.040. Native trees, according to Section 12.32.040, include any tree of the following species: Coast live oak (*Quercus agrifolia*), Canyon live oak (*Quercus chrysolepis*), Engelmann oak (*Quercus engelmannii*), and California sycamore (*Platanus racemosa*).

All trees meeting the City's definition of "native" located on the project site were assessed, inventoried, mapped, and plotted on a tree location exhibit (Appendix A). No tree tags were placed on the trunks of inventoried trees. Tree ID numbers correspond to the tree locations presented in Appendix A and the tree information matrix in Appendix B.

The location of each mature tree was mapped using a Trimble Pathfinder Pro XH GPS receiver (Appendix A). The Pathfinder has a horizontal accuracy of 1 meter (1 sigma) using differential code positioning techniques. Because tree canopies can sometimes cause loss of satellite lock by blocking the line of sight to satellites, an electronic compass and reflectorless electronic distance measuring device were also used in mapping tree locations. The electronic distance measuring device/compass combination operates in concert with the Pathfinder system to position offsets, and offset information is automatically attached to the GPS position data string.

Concurrent with tree mapping efforts, Dudek arborists collected the following tree attribute data: species, quantity of individual trunks, individual trunk diameters, overall height, canopy extent, and general health and structural conditions. Trunk diameter measurements were collected at 4.6 feet above the ground along the trunk axis, with a few exceptions. In cases where a tree's trunk was located on a slope, the 4.6-foot distance was approximated as the average of the shortest and longest sides of the trunk (i.e., the uphill side and downhill side of a tree's trunk), and the measurement was made of the circumference of the trunk at this point. Tree height measurements were ocular estimates made by experienced field arborists. Tree canopy diameters were typically estimated by "pacing off" the measurement based on the investigator's knowledge of his stride length or by visually estimating the canopy width. Tree-crown diameter measurements were made along an imaginary line intersecting the tree trunk that best approximated the average canopy diameter.

Pursuant to the Guide for Plant Appraisal (ISA 2000), tree health and structure were evaluated with respect to five tree components: roots, trunk(s), scaffold branches, small branches, and foliage. Each component of the tree was assessed for health factors such as insect, fungal, or pathogen damage; fire damage; mechanical damage; presence of decay; presence of wilted or dead leaves; and wound closure. Components were graded as good, fair, poor, or dead, with "good" representing no apparent problems, and "dead" representing a dying or dead tree. This method of tree condition rating is comprehensive and results in ratings that are useful for determining the status of trees based on common standards. Trees in natural settings have important habitat value, even when they are in poor health, as evidenced by numerous cavity nesters and insects that thrive on and within oak trees. However, this assessment focused on tree health and structure to analyze potential project impacts, and, where necessary, to provide recommendations for mitigating potential tree hazards such as weak limb attachments, cavities, rot, or excessive lean.

Upon completion of field data collection and mapping, raw GPS data was post-processed using GPS Pathfinder Office (version 5.4), and individual tree location data was compiled and updated in geographic information system (GIS) software. The digital tree locations were linked to individual tree identification numbers and associated tree attribute data. This data set was then evaluated using ArcGIS (version 10.1) software to determine the position of individual trees related to the proposed project's development areas. Data resulting from this analysis were used to evaluate the individual tree impact totals presented in this report.

2.2 Scope of Work Limitations

No root crown excavations or investigations, aerial evaluations, or internal probing was performed during the tree assessment. Therefore, the presence or absence of internal decay or other hidden inferiorities in individual trees could not be confirmed. It is recommended that any large tree proposed for preservation in an area that receives human use be thoroughly inspected for internal and/or subterranean decay by a qualified ISA Certified Arborist before finalizing preservation plans.

3 Observations

3.1 Individual Trees

There are 157 trees representing 19 different species located within the project tree survey area. The 157 trees comprise one “native” oak tree and 156 non-jurisdictional trees. As Table 2 indicates, a majority (156 trees) of the inventoried trees do not meet the “native” tree criteria established in Chapter 12.32 of the City Municipal Code. Table 2 provides a summary of the 19 individual species mapped and evaluated within the tree survey area. The tree location exhibit in Appendix A presents the location of the individual trees mapped and assessed for the project.

Overall, the trees exhibit growth and structural conditions that are typical of their locations as both landscape and natural trees. The trees include various trunk and branch maladies, as well as varying health and structural conditions. As presented in the tree information matrix in Appendix B, 50.96% (80 trees) of the individually mapped trees exhibit good health condition; 46.5% (73 trees) are in fair health condition; and 2.55% (4 trees) are in poor health condition. The single oak tree was found to be in good health. Structurally, 28.6% (45 trees) of the individually mapped trees are considered to exhibit good structure, 68.15% (107 trees) exhibit fair structure, and 3.18% (5 trees) exhibit poor structure. The single oak tree was found to have good structure. Good condition trees exhibit acceptable vigor, healthy foliage, and adequate structure, and lack of any major maladies. Fair condition trees are typical, with few maladies but declining vigor. Poor condition trees exhibit declining vigor, unhealthy foliage, poor branch structure, and/or excessive lean.

Table 2. Summary of Trees at Project Site

Scientific Name	Common Name	Number of Trees
Eucalyptus camaldulensis	Red gum eucalyptus	21
Eucalyptus polyanthemos	Silver dollar gum eucalyptus	1
Fraxinus uhdei	Shamel ash	2
Grevillea robusta	Silk oak	2
Koelreuteria bipinnata	Chinese flame	1
Melia azedarach	Chinaberry	1
Olea europaea	Olive	4
Phoenix canariensis	Canary Island date palm	1
Pinus halepensis	Aleppo pine	2
Pistacia chinensis	Chinese pistache	4
Platanus acerifolia	London plane	1
Populus fremontii	Fremont cottonwood	3
Quercus agrifolia	Coast live oak	1
Salix gooddingii	Goodding's willow	28
Schinus molle	Peruvian pepper	19
Schinus terebinthifolius	Brazilian pepper	11
Ulmus parvifolia	Chinese elm	2
Ulmus pumila	Siberian elm	1
Washingtonia robusta	Mexican fan palm	52
	Total	**157**

Trees within the tree survey area vary in size and stature according to species and available growing space. The trees on site are primarily single stemmed with trunk diameters ranging from 3 to 32 inches diameter at standard height (DSH). Multi-stemmed trees with 2 to 25 stems (multi-stemmed Brazilian pepper re-sprout) have individual diameters of up to 23 inches DHS. The site's single oak tree has a DSH of 7 inches. Tree heights vary from 4 to 50 feet. Taller trees (40-plus feet) are represented primarily by the site's Mexican fan palms. The site's oak tree is approximately 15 feet tall. Tree crown extents range from 5 feet to nearly 45 feet at their widest points. The site's only oak tree has a crown width of approximately 12 feet.

4 Tree Preservation

4.1 Regulatory Definitions and Requirements

Tree protection, removal, and replacement standards are included in the City's Urban Forestry Ordinance, which is Chapter 12.32 of the City's Municipal Code. The Urban Forestry Ordinance recognizes "native" trees as especially important in the practice of urban forestry. Sections 12.32.010 through 12.32.220 set forth rules and standards related to mature tree removal, protection, and replacement. The following text is taken from the City's Urban Forestry Ordinance (City of Poway 2000).

Section 12.32.040 (Definitions)

1. "Heritage tree" means any mature tree or mature stand of trees designated by the City Council as having historic or cultural significance.
2. "Native tree" means any tree of the following species: Coast Live Oak (Quercus agrifolia), Canyon Live Oak (Quercus chrysolepis), Engelmann Oak (Quercus engelmannii), and California Sycamore (Platanus racemosa).

Section 12.32.150 (Private Tree Removal Permit)

A. The Director of Development Services shall maintain the City's private tree removal permit records and issue such permits.

B. A property owner shall first obtain a private tree removal permit authorizing the removal of a private tree that is a native tree or a heritage tree subject to terms and conditions deemed appropriate by the Director of Development Services or his/her designee. On commercial and industrial property, a permit shall be required for the removal of any living tree greater than three inches in diameter.

C. Applicants shall be expected to replace these types of trees in accordance with PMC 12.32.170; "Replacement of Trees." The Director of Development Services, or his/her designee shall review each private tree removal permit application and make a recommendation as to whether the permit shall be issued or denied. The decision to issue or deny the permit and any terms and conditions of the permit shall be based on the following criteria:

1. The condition of the tree with respect to disease, general health, damage, public nuisance, danger of falling, proximity to existing or proposed structures and interference with utility services, age or remaining life span, and whether or not the tree acts as host for a plant which is parasitic to other species of trees which are in danger of being infested or exterminated by the parasite;
2. The necessity of the requested action to construct improvements, or allow economic or other enjoyment of the property;
3. The topography of the land and the effect of the requested action on erosion, soil retention, water retention, and diversion or increased flow of surface water;

4. The number, species, size, and location of existing trees in the area and the effect of the requested action in terms of providing shade, protection from wind, air pollution reduction, historic or cultural value, and scenic beauty upon the health, safety, aesthetics, and general welfare of the City as a whole;
5. Generally accepted International Society of Arboriculture practices addressing topics such as, but not limited to, the number of healthy trees a given parcel of land will support;
6. Native trees shall be retained unless their removal is absolutely necessary. (Ord. 521 § 1(B), 2000)

4.1.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act requires that any tree removal or potentially disturbing construction activities occur during certain months to avoid harassment of nesting birds. According to the Migratory Bird Treaty Act, no construction or other disturbing activities can occur within 500 feet of an active bird nest from January through June each year. Biological surveys should be conducted to provide clearance before initiation of project construction.

4.2 Impacts

Tree impacts were determined using GIS technology and spatial locations of trees relative to the proposed project impact areas (limits of grading). Upon determining the individual tree locations in relation to the limits of grading, Dudek evaluated the specific type of work that is proposed to occur within and immediately adjacent to the potentially impacted trees. Impacts were determined based on Dudek's experience with native and non-native trees and their typical reactions to root disturbances from construction activities such as soil compaction, excavation, and remedial grading. The impact analysis results presented herein were used to develop mitigation measures for the proposed project.

Impacts to trees can be classified as either direct or indirect. Direct impacts to trees related to site improvements are typically the result of physical injuries or changes caused by machinery involved with the development process. Direct impacts include tree removal, root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds, among others. Indirect impacts to trees are the result of changes to the site that may cause tree decline, even when the tree is not directly injured. Indirect impacts include alterations to stream flow rates, diversion of groundwater flow, introduction of exotic plant species, and alterations to disturbance regimes. Wider-scale alterations to the area near trees, plus specific changes that occur around the trees, are important considerations.

There is a great deal of variation in tolerance to construction impacts among tree species, ages, and conditions. It is important to know how a certain tree, based on its species, age, and condition, would respond to different types of disturbance. The trees in the project site are of varying ages and conditions. Mature specimens are typically more sensitive to root disturbance and grade changes. In general, healthy trees will respond better to changes in their growing environment. Trees in poor health or stressed conditions may not be vigorous enough to cope with direct or indirect impacts from construction activities.

Impact totals presented herein are based on conceptual disturbance limits as of the date of this tree inventory and arborist report. As such, the actual number of trees that are subject to direct impacts may change as the site planning process proceeds.

4.2.1 Tree Impacts

Based on proposed project development plans, it is estimated that 59 trees on the proposed project site will require removal. Of the 59 trees identified for removal, one is a protected "native" oak, and the remaining 58 trees are non-protected ornamental trees. Details regarding individual tree disposition status can be found in Appendix B and seen in Appendix C, Tree Impacts.

4.3 Mitigation

Section 12.32.170 of the City's Municipal Code identifies tree replacement standards for projects affecting "native" trees. Section 12.32.170 specifically states,

> Any person removing a live tree pursuant to a permit issued by the Director of Development Services or his/her designee shall replace such tree on a one-for-one basis with a tree of the same size of a species and in a location approved by the Director of Development Services or his/her designee. Where the tree to be removed exceeds the size of a 72-inch-box specimen (approximately eight inches in diameter), two 48-inch box specimen trees shall be used as replacements. These requirements may be waived or modified by the Director of Development Services if it is determined that the requirements impose an unreasonable hardship (Ord. 521 Section 1(B), 2000).

Based on proposed project development plans, it is estimated that 59 trees on the proposed project site will require removal. Of the 59 trees identified for removal, one is a "native" oak tree and the remaining 58 are non-jurisdictional. Based on Section 12.32.170 of the City of Poway's Municipal Code, the minimum mitigation planting requirements for the removal of one "native" oak tree is one-for-one basis with a tree of the same size. As such, based on the size of the tree (7 inches in diameter) and the City requirements, Dudek recommends planting one 96-inch box coast live oak tree in the post-construction landscape. Furthermore, to account or the loss of 58 additional non-protected trees, Dudek recommends that as many trees as feasible be replanted on the project sites. Based on a review of the site's available planting area and landscape plan, the site can support up to 42 trees within the specific plan area. As such, Dudek recommends planting, as feasible, 42 15-gallon (or larger) drought-tolerant trees in the post-construction landscape. It should be noted that the City ordinance only requires replacement of the single "native" oak tree and that replacement of the additional 42 trees is not required by the City ordinance.

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5 Tree Protection

Based on the proposed project footprint, 98 of the inventoried trees on or adjacent to the proposed project site will be retained. Tree protection is a key component in the continued success of the trees on site, especially those immediately adjacent to the project footprint (encroachment trees). As such, it is recommended that the 87 preserved and 11 encroached-upon trees be protected in accordance with the tree protection measures in Appendix E.

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6 Conclusion

Dudek inventoried and evaluated 157 trees on and adjacent to the proposed project site, of which one tree meets the City's definition of protected "native" tree. Based on Section 32.170 of the City's Municipal Code the minimum mitigation planting requirements for the removal of one "native" oak tree is one-for-one with a tree of the same size of a species. As such, based on the size of the tree (7 inches in diameter) and the City requirements, Dudek recommends planting one 96-inch box coast live oak tree in the post-construction landscape. Furthermore, to account or the loss of 58 additional non-protected trees, Dudek recommends that 58 15-gallon drought tolerant trees be planted in the post-construction landscape. It should be noted that the City ordinance only requires replacement of the single "native" oak tree and that replacement of the additional 58 trees is not required by the City ordinance. Furthermore, Dudek recommends that the remaining 11 encroached-upon trees be preserved in accordance with the tree protection measures provided in Appendix E.

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7 Disclaimer

This report provides conclusions and recommendations based on a visual examination of the trees and surrounding site by an ISA Certified Arborist and reasonable reliance on the completeness and accuracy of the information provided to the arborist. The examination did not include subterranean or internal examination of the trees.

Arborists are tree specialists 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 them. Although trees provide many benefits to those who live near them, they also include inherent risks from breakage or failure, which can be minimized but not eliminated.

Arborists cannot detect every condition that could possibly lead to the failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi, weather, and other forces of nature, and conditions that lead to failure are often hidden within trees and below ground. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature, including storms of sufficient strength, that can cause even an apparently healthy tree to fail. Additionally, arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for any specific period of time. A tree's condition could change over a short or long period of time due to climatic, environmental, and other conditions. Further, there is no guarantee or certainty that recommendations or efforts to correct unsafe conditions will prevent future breakage or failure of a tree.

To live or work near trees is to accept some degree of risk. Neither the author of this report nor Dudek assumes any responsibility for, nor will they be liable for, any claims, losses, or damages for damage to any tree, death or injury to any person, or any loss of or damage to any personal or real property.

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8 References

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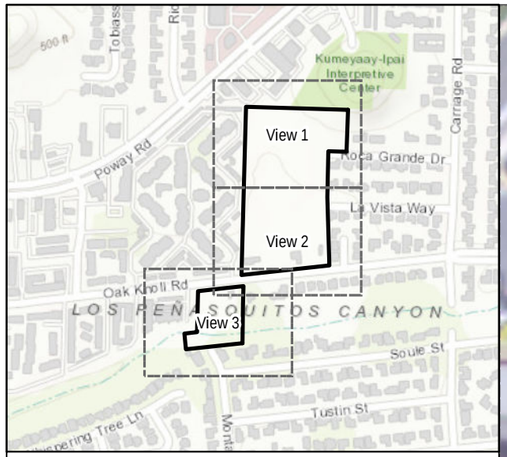
Appendix A

Tree Location Exhibit



Project Boundary

Species

- *Eucalyptus camaldulensis*, Red Gum
- *Eucalyptus polyanthemos*, Silver Dollar Gum
- *Fraxinus uhdei*, Shamel Ash
- *Grevillea robusta*, Silk Oak
- *Koelruteria bipinnata*, Chinese Flame
- *Melia azedarach*, Chinaberry
- *Olea europaea*, Olive
- *Phoenix canariensis*, Canary Island Date Palm
- *Pinus halepensis*, Aleppo Pine
- *Pistacia chinensis*, Chinese Pistache
- *Platanus acerifolia*, London Plane
- *Populus fremontii*, Fremont Cottonwood
- *Quercus agrifolia*, Coast Live Oak
- *Salix gooddingii*, Goodding's Willow
- *Schinus molle*, Peruvian Pepper
- *Schinus terebinthifolius*, Brazilian Pepper
- *Ulmus parvifolia*, Chinese Elm
- *Ulmus pumila*, Siberian Elm
- *Washingtonia robusta*, Mexican Fan Palm

SOURCE: NAIP IMAGERY 2020

DUDEK

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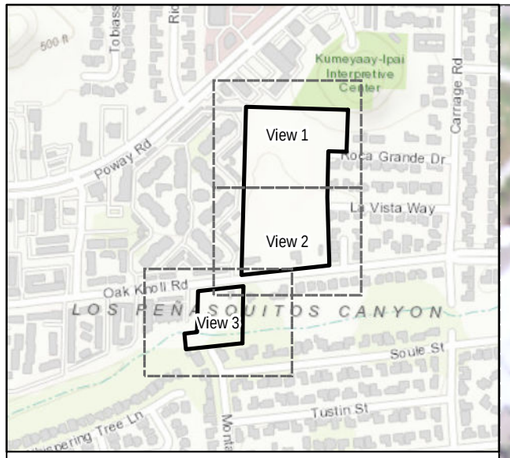
APPENDIX A - VIEW 1

Tree Locations

Harmon Ranch Project



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- *Ulmus parvifolia*, Chinese Elm
- *Ulmus pumila*, Siberian Elm
- *Washingtonia robusta*, Mexican Fan Palm

SOURCE: NAIP IMAGERY 2020

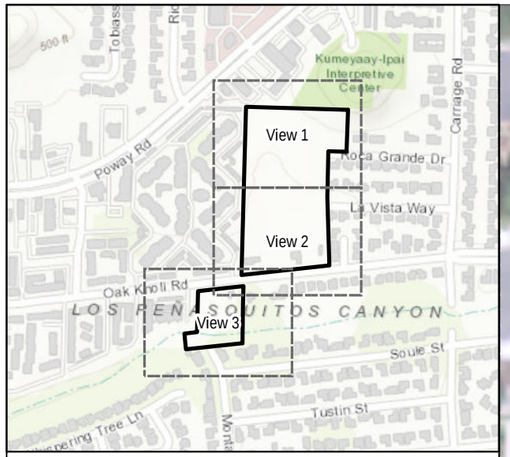
DUDEK

0 30 60 Feet

APPENDIX A - VIEW 2

Tree Locations

Harmon Ranch Project



Project Boundary

Species

- *Eucalyptus camaldulensis*, Red Gum
- *Eucalyptus polyanthemos*, Silver Dollar Gum
- *Fraxinus uhdei*, Shamel Ash
- *Grevillea robusta*, Silk Oak
- *Koelruteria bipinnata*, Chinese Flame
- *Melia azedarach*, Chinaberry
- *Olea europaea*, Olive
- *Phoenix canariensis*, Canary Island Date Palm
- *Pinus halepensis*, Aleppo Pine
- *Pistacia chinensis*, Chinese Pistache
- *Platanus acerifolia*, London Plane
- *Populus fremontii*, Fremont Cottonwood
- *Quercus agrifolia*, Coast Live Oak
- *Salix gooddingii*, Goodding's Willow
- *Schinus molle*, Peruvian Pepper
- *Schinus terebinthifolius*, Brazilian Pepper
- *Ulmus parvifolia*, Chinese Elm
- *Ulmus pumila*, Siberian Elm
- *Washingtonia robusta*, Mexican Fan Palm

OAK KNOLL

MONTAUK

SOULE

SOURCE: NAIP IMAGERY 2020

DUDEK

0 30 60 Feet

APPENDIX A - VIEW 3

Tree Locations

Harmon Ranch Project

Appendix B

Tree Information Matrix

Tree No.	Botanical Name	Common Name	Number of Stems	Combined Stem Diameter (in.)	Individual Stem Diameter (in.)						Height (ft.)	Crown width (ft.)	Health	Structure	Regulation Status	Impact Status
					Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Stem 6						
1	Platanus acerifolia	London Plane	2	18	6	12	0	0	0	0	15	17	Fair	Good	Non Jurisdictional	Remove
2	Schinus terebinthifolius	Brazilian Pepper	1	8	8	0	0	0	0	0	17	23	Good	Good	Non Jurisdictional	Remove
3	Schinus terebinthifolius	Brazilian Pepper	7	39	7	9	7	7	7	2	20	25	Good	Good	Non Jurisdictional	Remove
4	Schinus terebinthifolius	Brazilian Pepper	3	20	7	7	6	0	0	0	20	25	Good	Good	Non Jurisdictional	Remove
5	Schinus terebinthifolius	Brazilian Pepper	2	12	8	4	0	0	0	0	20	25	Good	Good	Non Jurisdictional	Remove
6	Schinus terebinthifolius	Brazilian Pepper	3	19	8	5	6	0	0	0	20	25	Good	Good	Non Jurisdictional	Remove
7	Schinus terebinthifolius	Brazilian Pepper	3	20	8	8	4	0	0	0	20	25	Good	Good	Non Jurisdictional	Remove
8	Schinus terebinthifolius	Brazilian Pepper	2	7	3	4	0	0	0	0	15	20	Good	Good	Non Jurisdictional	Remove
9	Schinus terebinthifolius	Brazilian Pepper	5	25	4	4	8	6	3	0	23	25	Good	Good	Non Jurisdictional	Remove
10	Schinus terebinthifolius	Brazilian Pepper	2	4	2	2	0	0	0	0	25	20	Good	Good	Non Jurisdictional	Remove
11	Washingtonia robusta	Mexican Fan Palm	1	22	22	0	0	0	0	0	47	15	Good	Good	Non Jurisdictional	Remove
12	Washingtonia robusta	Mexican Fan Palm	1	22	22	0	0	0	0	0	48	15	Good	Good	Non Jurisdictional	Remove
13	Washingtonia robusta	Mexican Fan Palm	1	19	19	0	0	0	0	0	50	15	Good	Good	Non Jurisdictional	Remove
14	Washingtonia robusta	Mexican Fan Palm	1	19	19	0	0	0	0	0	50	15	Good	Good	Non Jurisdictional	Remove
15	Olea europaea	Olive	8	17	5	1	2	4	2	3	18	17	Good	Fair	Non Jurisdictional	Remove
16	Schinus terebinthifolius	Brazilian Pepper	14	24	5	5	5	4	2	3	21	30	Good	Fair	Non Jurisdictional	Remove
17	Schinus terebinthifolius	Brazilian Pepper	25	24	5	5	5	4	2	3	21	30	Good	Fair	Non Jurisdictional	Remove
18	Schinus terebinthifolius	Brazilian Pepper	2	13	6	7	0	0	0	0	27	23	Good	Fair	Non Jurisdictional	Remove
19	Ulmus parvifolia	Chinese Elm	1	25	25	0	0	0	0	0	35	30	Fair	Fair	Non Jurisdictional	Remove
20	Eucalyptus polyanthemos	Silver Dollar Gum	1	26	26	0	0	0	0	0	42	45	Good	Fair	Non Jurisdictional	Remove
21	Olea europaea	Olive	10	25	5	5	5	5	4	1	12	20	Good	Fair	Non Jurisdictional	Remove
22	Olea europaea	Olive	5	23	10	5	5	2	1	0	12	20	Good	Fair	Non Jurisdictional	Remove
23	Olea europaea	Olive	3	3	1	1	1	0	0	0	12	20	Good	Fair	Non Jurisdictional	Remove
24	Washingtonia robusta	Mexican Fan Palm	1	25	25	0	0	0	0	0	34	15	Good	Good	Non Jurisdictional	Remove
25	Fraxinus uhdei	Shamel Ash	2	22	14	8	0	0	0	0	18	33	Good	Good	Non Jurisdictional	Remove
26	Fraxinus uhdei	Shamel Ash	2	31	23	8	0	0	0	0	25	45	Good	Good	Non Jurisdictional	Remove
27	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	35	15	Good	Good	Non Jurisdictional	Remove
28	Ulmus parvifolia	Chinese Elm	1	20	20	0	0	0	0	0	29	27	Good	Good	Non Jurisdictional	Remove
29	Schinus molle	California Pepper	1	24	24	0	0	0	0	0	43	40	Good	Good	Non Jurisdictional	Remove
30	Schinus molle	California Pepper	2	25	12	13	0	0	0	0	40	35	Good	Fair	Non Jurisdictional	Remove
31	Schinus molle	California Pepper	1	12	12	0	0	0	0	0	40	35	Good	Good	Non Jurisdictional	Remove
32	Schinus molle	California Pepper	2	25	12	13	0	0	0	0	40	35	Good	Good	Non Jurisdictional	Remove
33	Schinus molle	California Pepper	1	31	31	0	0	0	0	0	35	35	Fair	Good	Non Jurisdictional	Remove
34	Schinus molle	California Pepper	9	51	12	7	13	6	3	10	35	35	Fair	Fair	Non Jurisdictional	Remove
35	Schinus molle	California Pepper	1	11	11	0	0	0	0	0	35	35	Poor	Fair	Non Jurisdictional	Remove
36	Schinus molle	California Pepper	4	82	20	20	22	20	0	0	35	35	Fair	Fair	Non Jurisdictional	Remove
37	Washingtonia robusta	Mexican Fan Palm	1	23	23	0	0	0	0	0	43	10	Good	Good	Non Jurisdictional	Remove
38	Pinus halepensis	Aleppo Pine	1	32	32	0	0	0	0	0	29	36	Fair	Fair	Non Jurisdictional	Encroached
39	Eucalyptus camaldulensis	Red Gum	4	24	9	9	3	3	0	0	22	25	Fair	Poor	Non Jurisdictional	Encroached
52	Populus fremontii	Fremont Cottonwood	1	8	8	0	0	0	0	0	17	15	Fair	Fair	Non Jurisdictional	Preserve
60	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
61	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
62	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
63	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
64	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
65	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
66	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
67	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
68	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
69	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve

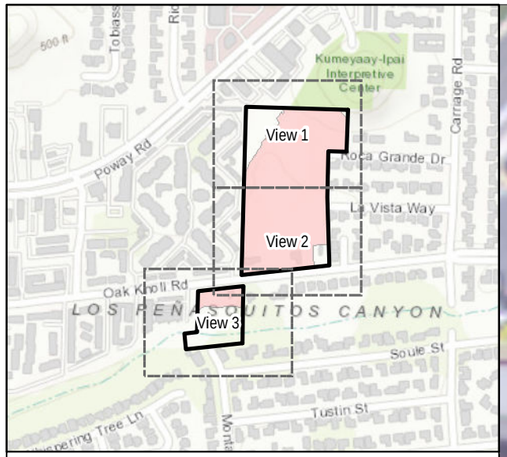
Tree No.	Botanical Name	Common Name	Number of Stems	Combined Stem Diameter (in.)	Individual Stem Diameter (in.)						Height (ft.)	Crown width (ft.)	Health	Structure	Regulation Status	Impact Status
					Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Stem 6						
70	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	50	12	Fair	Fair	Non Jurisdictional	Preserve
71	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	25	12	Fair	Fair	Non Jurisdictional	Preserve
72	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	35	12	Fair	Fair	Non Jurisdictional	Preserve
73	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	15	12	Fair	Fair	Non Jurisdictional	Preserve
74	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
75	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
76	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
77	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
78	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
79	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
80	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
81	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
82	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	45	12	Fair	Fair	Non Jurisdictional	Preserve
83	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	19	12	Fair	Fair	Non Jurisdictional	Preserve
84	Washingtonia robusta	Mexican Fan Palm	1	18	18	0	0	0	0	0	19	12	Fair	Fair	Non Jurisdictional	Preserve
85	Washingtonia robusta	Mexican Fan Palm	1	18	18	0	0	0	0	0	19	12	Fair	Fair	Non Jurisdictional	Preserve
86	Washingtonia robusta	Mexican Fan Palm	1	12	12	0	0	0	0	0	15	12	Fair	Fair	Non Jurisdictional	Preserve
87	Populus fremontii	Fremont Cottonwood	1	14	14	0	0	0	0	0	30	20	Fair	Poor	Non Jurisdictional	Encroached
88	Populus fremontii	Fremont Cottonwood	4	59	20	10	9	20	0	0	35	35	Fair	Poor	Non Jurisdictional	Encroached
89	Eucalyptus camaldulensis	Red Gum	7	5	0	1	1	1	1	1	12	17	Fair	Poor	Non Jurisdictional	Encroached
90	Salix gooddingii	Goodding's Willow	2	4	0	4	0	0	0	0	22	17	Fair	Fair	Non Jurisdictional	Preserve
91	Salix gooddingii	Goodding's Willow	2	4	0	4	0	0	0	0	22	17	Fair	Fair	Non Jurisdictional	Preserve
92	Salix gooddingii	Goodding's Willow	2	14	9	5	0	0	0	0	22	17	Fair	Fair	Non Jurisdictional	Preserve
93	Salix gooddingii	Goodding's Willow	2	13	8	5	0	0	0	0	22	17	Fair	Fair	Non Jurisdictional	Preserve
94	Salix gooddingii	Goodding's Willow	2	24	12	12	0	0	0	0	22	28	Fair	Fair	Non Jurisdictional	Remove
95	Schinus molle	California Pepper	2	33	22	11	0	0	0	0	28	32	Fair	Fair	Non Jurisdictional	Encroached
96	Washingtonia robusta	Mexican Fan Palm	1	15	15	0	0	0	0	0	48	15	Good	Good	Non Jurisdictional	Preserve
97	Washingtonia robusta	Mexican Fan Palm	1	15	15	0	0	0	0	0	27	15	Good	Good	Non Jurisdictional	Preserve
98	Washingtonia robusta	Mexican Fan Palm	1	15	15	0	0	0	0	0	27	15	Good	Good	Non Jurisdictional	Preserve
99	Quercus agrifolia	Coast Live Oak	1	7	7	0	0	0	0	0	15	12	Good	Good	Protected Native	Remove
100	Schinus molle	California Pepper	2	24	9	15	0	0	0	0	22	17	Good	Good	Non Jurisdictional	Remove
101	Salix gooddingii	Goodding's Willow	2	27	12	15	0	0	0	0	30	20	Fair	Fair	Non Jurisdictional	Preserve
105	Salix gooddingii	Goodding's Willow	1	5	5	0	0	0	0	0	15	12	Good	Fair	Non Jurisdictional	Preserve
106	Salix gooddingii	Goodding's Willow	2	12	5	7	0	0	0	0	13	17	Good	Fair	Non Jurisdictional	Preserve
111	Washingtonia robusta	Mexican Fan Palm	1	3	3	0	0	0	0	0	4	5	Good	Good	Non Jurisdictional	Preserve
112	Washingtonia robusta	Mexican Fan Palm	1	3	3	0	0	0	0	0	4	5	Good	Good	Non Jurisdictional	Preserve
113	Washingtonia robusta	Mexican Fan Palm	1	3	3	0	0	0	0	0	4	5	Good	Good	Non Jurisdictional	Preserve
114	Washingtonia robusta	Mexican Fan Palm	1	3	3	0	0	0	0	0	4	5	Good	Good	Non Jurisdictional	Preserve
115	Schinus molle	California Pepper	1	29	29	0	0	0	0	0	35	40	Good	Fair	Non Jurisdictional	Remove
116	Schinus molle	California Pepper	1	13	13	0	0	0	0	0	20	20	Good	Fair	Non Jurisdictional	Remove
117	Schinus molle	California Pepper	1	8	8	0	0	0	0	0	13	10	Good	Fair	Non Jurisdictional	Remove
118	Eucalyptus camaldulensis	Red Gum	1	30	30	0	0	0	0	0	48	45	Good	Fair	Non Jurisdictional	Encroached
119	Eucalyptus camaldulensis	Red Gum	1	24	24	0	0	0	0	0	48	40	Fair	Fair	Non Jurisdictional	Remove
120	Schinus molle	California Pepper	3	8	2	3	3	0	0	0	8	8	Fair	Fair	Non Jurisdictional	Remove
121	Schinus molle	California Pepper	1	26	26	0	0	0	0	0	20	25	Fair	Fair	Non Jurisdictional	Remove
122	Schinus molle	California Pepper	1	15	15	0	0	0	0	0	17	19	Fair	Fair	Non Jurisdictional	Remove
123	Pistacia chinensis	Chinese Pistache	1	6	6	0	0	0	0	0	10	10	Poor	Fair	Non Jurisdictional	Remove
124	Pistacia chinensis	Chinese Pistache	1	6	6	0	0	0	0	0	10	10	Poor	Fair	Non Jurisdictional	Remove
125	Pistacia chinensis	Chinese Pistache	1	6	6	0	0	0	0	0	10	10	Poor	Fair	Non Jurisdictional	Remove
126	Pistacia chinensis	Chinese Pistache	1	6	6	0	0	0	0	0	10	10	Fair	Fair	Non Jurisdictional	Remove

Tree No.	Botanical Name	Common Name	Number of Stems	Combined Stem Diameter (in.)	Individual Stem Diameter (in.)						Height (ft.)	Crown width (ft.)	Health	Structure	Regulation Status	Impact Status
					Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Stem 6						
127	Schinus molle	California Pepper	3	20	20	0	0	0	0	0	23	35	Fair	Fair	Non Jurisdictional	Remove
128	Melia azedarach	Chinaberry	2	22	13	9	0	0	0	0	15	27	Fair	Fair	Non Jurisdictional	Remove
129	Pinus halepensis	Aleppo Pine	1	25	25	0	0	0	0	0	41	30	Good	Fair	Non Jurisdictional	Remove
130	Grevillea robusta	Silk Oak	1	25	25	0	0	0	0	0	47	35	Good	Fair	Non Jurisdictional	Remove
131	Grevillea robusta	Silk Oak	1	19	19	0	0	0	0	0	43	30	Fair	Fair	Non Jurisdictional	Remove
133	Salix gooddingii	Goodding's Willow	2	15	5	10	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
134	Salix gooddingii	Goodding's Willow	2	15	5	10	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
135	Salix gooddingii	Goodding's Willow	2	20	10	10	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
136	Salix gooddingii	Goodding's Willow	3	16	7	6	3	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
137	Salix gooddingii	Goodding's Willow	3	17	8	6	3	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
138	Salix gooddingii	Goodding's Willow	2	11	8	3	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
139	Salix gooddingii	Goodding's Willow	4	19	6	3	6	4	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
140	Salix gooddingii	Goodding's Willow	3	15	5	5	5	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
141	Salix gooddingii	Goodding's Willow	1	5	5	0	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Encroached
142	Salix gooddingii	Goodding's Willow	1	10	10	0	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
143	Salix gooddingii	Goodding's Willow	3	10	4	2	4	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
144	Salix gooddingii	Goodding's Willow	3	10	4	2	4	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Encroached
145	Salix gooddingii	Goodding's Willow	3	10	4	2	4	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
146	Salix gooddingii	Goodding's Willow	2	12	6	6	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Encroached
147	Salix gooddingii	Goodding's Willow	2	16	10	6	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
148	Salix gooddingii	Goodding's Willow	5	23	5	6	4	4	4	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
149	Salix gooddingii	Goodding's Willow	4	19	5	6	4	4	0	0	20	20	Fair	Fair	Non Jurisdictional	Encroached
150	Salix gooddingii	Goodding's Willow	2	12	5	7	0	0	0	0	20	20	Fair	Fair	Non Jurisdictional	Preserve
151	Schinus molle	California Pepper	2	30	23	7	0	0	0	0	30	40	Fair	Fair	Non Jurisdictional	Remove
152	Ulmus pumila	Siberian Elm	1	24	24	0	0	0	0	0	22	40	Fair	Poor	Non Jurisdictional	Remove
153	Eucalyptus camaldulensis	Red Gum	2	27	14	13	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
153	Eucalyptus camaldulensis	Red Gum	1	12	12	0	0	0	0	0	25	20	Good	Fair	Non Jurisdictional	Remove
154	Eucalyptus camaldulensis	Red Gum	2	10	7	3	0	0	0	0	25	15	Good	Fair	Non Jurisdictional	Preserve
154	Eucalyptus camaldulensis	Red Gum	1	13	13	0	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
155	Eucalyptus camaldulensis	Red Gum	3	33	11	10	12	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
156	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve
157	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve
158	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve
159	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve
160	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve

Tree No.	Botanical Name	Common Name	Number of Stems	Combined Stem Diameter (in.)	Individual Stem Diameter (in.)						Height (ft.)	Crown width (ft.)	Health	Structure	Regulation Status	Impact Status
					Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	Stem 6						
161	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve
162	Eucalyptus camaldulensis	Red Gum	6	16	6	2	2	2	2	2	30	20	Good	Fair	Non Jurisdictional	Preserve
163	Eucalyptus camaldulensis	Red Gum	1	13	13	0	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
166	Eucalyptus camaldulensis	Red Gum	1	20	20	0	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
167	Eucalyptus camaldulensis	Red Gum	1	20	20	0	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
168	Eucalyptus camaldulensis	Red Gum	2	19	10	9	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
169	Eucalyptus camaldulensis	Red Gum	2	23	11	12	0	0	0	0	30	20	Good	Fair	Non Jurisdictional	Preserve
170	Washingtonia robusta	Mexican Fan Palm	1	11	11	0	0	0	0	0	30	20	Good	Good	Non Jurisdictional	Preserve
171	Washingtonia robusta	Mexican Fan Palm	1	12	12	0	0	0	0	0	25	15	Good	Good	Non Jurisdictional	Preserve
172	Washingtonia robusta	Mexican Fan Palm	1	14	14	0	0	0	0	0	25	15	Good	Good	Non Jurisdictional	Preserve
173	Washingtonia robusta	Mexican Fan Palm	1	11	11	0	0	0	0	0	25	15	Good	Good	Non Jurisdictional	Preserve
174	Washingtonia robusta	Mexican Fan Palm	1	11	11	0	0	0	0	0	35	20	Good	Good	Non Jurisdictional	Preserve
175	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	35	20	Good	Good	Non Jurisdictional	Preserve
176	Phoenix canariensis	Canary Island Date Palm	1	20	20	0	0	0	0	0	20	20	Good	Good	Non Jurisdictional	Preserve
177	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	40	20	Good	Good	Non Jurisdictional	Preserve
178	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	40	20	Good	Good	Non Jurisdictional	Preserve
179	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	40	20	Good	Good	Non Jurisdictional	Preserve
180	Washingtonia robusta	Mexican Fan Palm	1	20	20	0	0	0	0	0	40	20	Good	Good	Non Jurisdictional	Preserve
183	Washingtonia robusta	Mexican Fan Palm	1	19	19	0	0	0	0	0	35	15	Good	Good	Non Jurisdictional	Preserve
184	Salix gooddingii	Goodding's Willow	1	10	10	0	0	0	0	0	35	25	Good	Fair	Non Jurisdictional	Preserve
186	Salix gooddingii	Goodding's Willow	6	25	5	6	4	3	2	5	20	35	Good	Fair	Non Jurisdictional	Preserve
188	Koelruteria bipinnata	Chinese Flame	6	18	3	3	3	3	3	3	10	5	Good	Fair	Non Jurisdictional	Preserve

Appendix C

Tree Impact Exhibit



Project Boundary
Permanent Impact

Disposition
- Direct
- Encroached
- Preserve

SOURCE: NAIP IMAGERY 2020

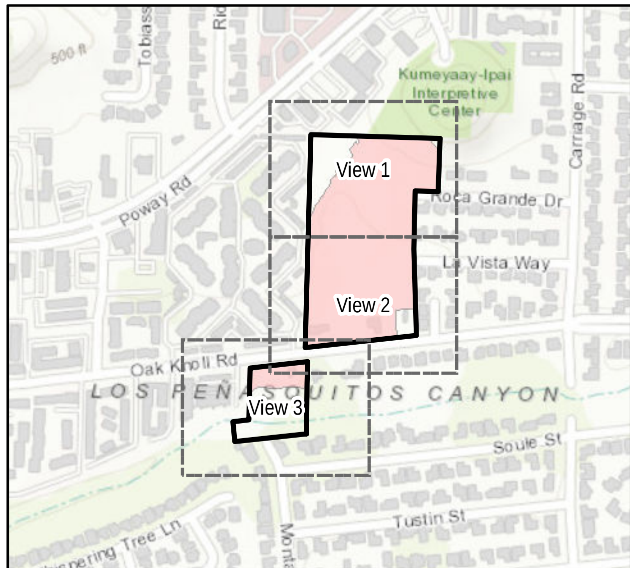
DUDEK

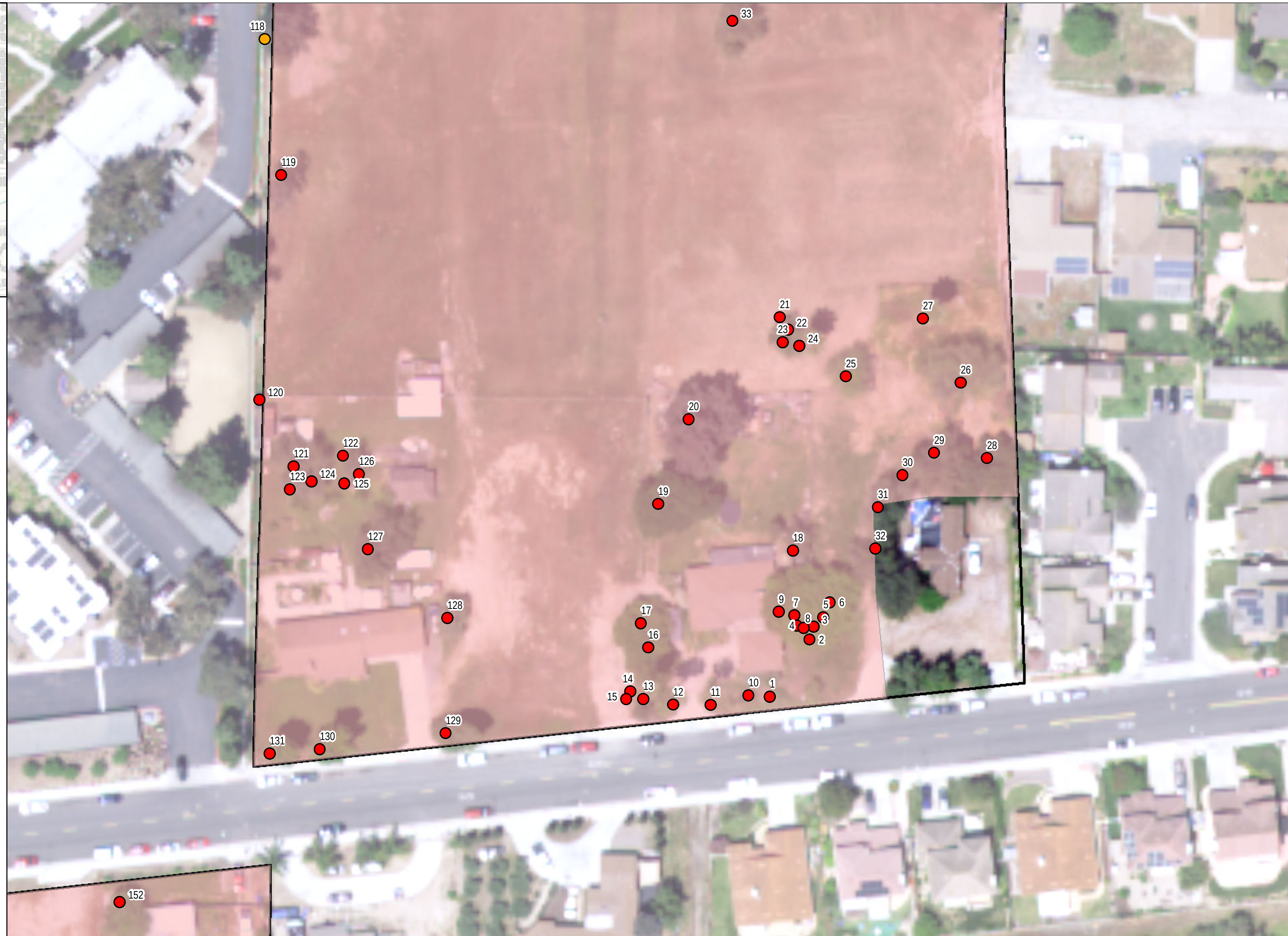
0 30 60 Feet

APPENDIX C - VIEW 1

Tree Impacts

Harmon Ranch Project





Project Boundary
Permanent Impact

Disposition
- Direct
- Encroached
- Preserve

SOURCE: NAIP IMAGERY 2020

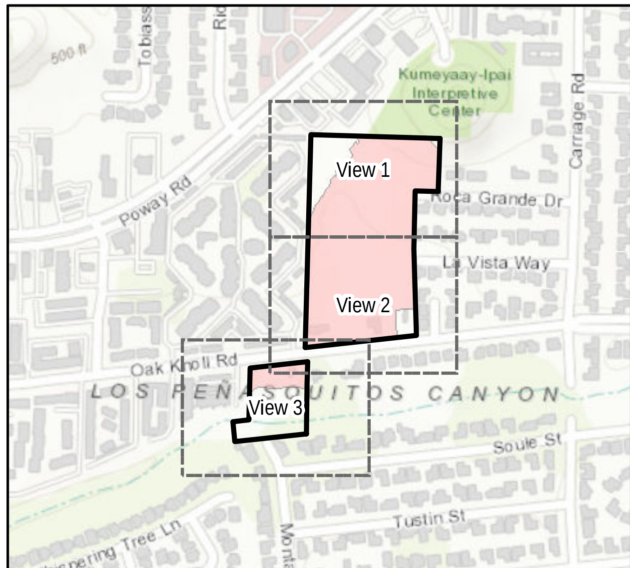
DUDEK

0 30 60 Feet

APPENDIX C - VIEW 2

Tree Impacts

Harmon Ranch Project



Project Boundary
Permanent Impact
Disposition
Direct
Encroached
Preserve

SOURCE: NAIP IMAGERY 2020

DUDEK

0 30 60 Feet

APPENDIX C - VIEW 3

Tree Impacts

Harmon Ranch Project

Appendix D

Land Use Plan


Poway Rd.
OSR-4
OSR-5
OSR-6
OS-4
OS-3
OS-2
Roca Grande
OSR-3
OSR-2
OSR-1
Oak Knoll Rd.
OSR-7
OS-1
Poway Creek
Soule St.
Montauk St.
N
Specific Plan Area Boundary
Open Space (OS)
Open Space Recreation (OS-R)
Residential - Single Family (R-SF)
Private Street
Public Right Of Way

Appendix E

Tree Protection Measures

APPENDIX E
Tree Protection Measures

The following sections are included as general guidelines for tree protection from construction impacts. The measures presented should be monitored by arborists and enforced by contractors and developers for maximum benefit to the trees.

TREE PROTECTION MEASURES PRIOR TO CONSTRUCTION

Prior to any construction activity (drainage, demolition, material removal or delivery), oak and landmark trees with canopies that fall within 30 feet of construction activity shall be protected by fencing and signage. All contractors shall be made aware of the tree protection measures. A project arborist shall be assigned to monitor tree health and construction activity near retained trees on site. The project arborist shall be an International Society of Arboriculture (ISA) Certified Arborist.

Fencing and Signage: A 6-foot high, chain link fence with tree protection signs shall be erected around all trees (or tree groups) with canopies that fall within 30 feet of construction activity. The protective fence should be installed at a distance from the trunk that is equal to the dripline radius plus 5 feet (protected tree zone). For any trees that would be encroached upon by construction activities, fencing shall be placed as far away from trunk of the tree as possible while still allowing the required construction activities to proceed. This fencing will delineate the tree protection zone and prevent unwanted activity in and around the trees in order to reduce soil compaction in the root zones of the trees and other damage from heavy equipment. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. In areas where fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base. Tree protection signs should be attached to every fourth post. The contractor shall maintain the fence to keep it upright, taut, and aligned at all times. Fencing shall be removed only after all construction activities are complete.

Pre-Construction Meeting: A pre-construction meeting shall be held between all contractors and the arborist. The arborist will instruct the contractors on tree protection practices and answer any questions. All equipment operators and spotters, assistants, or those directing operators from the ground, shall provide written acknowledgement of their receiving tree protection training. This training shall include information on the location and marking of protected trees, the necessity of preventing damage, and the discussion of work practices that will accomplish such.

Protection and Maintenance during Construction

Once construction activities have begun the following measures shall be adhered to:

Avoidance: Signs, ropes, cables, or any other items shall not be attached to any tree.

Equipment Operation and Storage: Operating heavy machinery around the root zones of trees will increase soil compaction, which decreases soil aeration and subsequently reduces water penetration in the soil. All heavy equipment and vehicles shall stay out of the fenced tree protection zone, unless where specifically approved in writing by the City Arborist and under the supervision of an ISA Certified Arborist.

Storage and Disposal: Do not store or discard any supply or material, including paint, lumber, concrete overflow, etc. within the fenced tree protection zone. Remove all foreign debris within the fenced tree protection zone; it is important to leave the duff, mulch, chips, and leaves around the retained trees for water retention and nutrients. Avoid draining or leakage of equipment fluids near retained trees. Fluids such as: gasoline, diesel, oils, hydraulics, brake and transmission fluids, paint, paint thinners, and glycol (anti-freeze) should be disposed of properly. Keep equipment parked outside of the fenced tree protection zone of retained trees to avoid the possibility of leakage of equipment fluids into the soil. The effect of toxic equipment fluids on the retained trees could lead to decline and death.

Moving Construction Materials: Care will be taken when moving equipment or supplies near the trees, especially overhead. Avoid damaging the tree(s) when transporting or moving construction materials and working around retained trees (even outside of the fenced tree protection zone). Above ground tree parts that could be damaged (e.g., low limbs, trunks) should be flagged with red ribbon. If contact with the tree crown is unavoidable, prune the conflicting branch(es) using ISA or ANSI A300 standards.

Grade Changes: Grade changes, including adding fill, are not permitted within the tree protection zone, without special written authorization and under supervision by a Certified Arborist. Lowering the grade within this area will necessitate cutting main support and feeder roots, jeopardizing the health and structural integrity of the tree(s). Adding soil, even temporarily, on top of the existing grade will compact the soil further, and decrease both water and air availability to the trees' roots.

Trenching: Unless a Tree Permit has been issued for trenching activity within the fenced tree protection zone, all trenching shall be outside of the fenced tree protection zone. Roots primarily extend in a horizontal direction forming a support base to the tree similar to the base of a wineglass. Where trenching is necessary in areas that contain tree roots, prune the roots using a Dosko root pruner or equivalent. All cuts should be clean and sharp, to minimize ripping, tearing, and fracturing of the root system. The trench should be made no deeper than necessary.

Irrigation: Trees that have been substantially root pruned (30% or more of their root zone) will require irrigation for the first twelve months. The first irrigation should be within 48 hours of root pruning. They should be deep watered every two to four weeks during the summer and once a month during the winter (adjust accordingly with rainfall). One irrigation cycle should thoroughly soak the root zones of the trees to a depth of 3 feet. The soil should dry out between watering; avoid keeping a consistently wet soil. Designate one person to be responsible for irrigating (deep watering) the trees. Check soil moisture with a soil probe before irrigating. Irrigation is best accomplished by installing a temporary above ground micro-spray system that will distribute water slowly (to avoid runoff) and evenly throughout the fenced tree protection zone ***but never soaking the area located within 6- feet of the tree trunk***.

Canopy Pruning: Do not prune any of the trees until all construction is completed. This will help protect the tree canopies from damage. All pruning shall be completed under the direction of an ISA Certified Arborist and using ISA guidelines. Only dead wood shall be removed from tree canopies.

Washing: Periodic washing of the foliage is recommended during construction but no more than once every two weeks. Washing should include the upper and lower leaf surfaces and the tree bark. This should continue beyond the construction period at a less frequent rate with a high-powered hose only in the early morning hours. Washing will help control dirt/dust buildup that can lead to mite and insect infestations.

Inspection: An ISA Certified Arborist shall inspect the trees on at least a monthly basis for the duration of construction activity. A summary report documenting observations and management recommendations shall be submitted to the owner following each inspection. Photographs of representative trees are to be included in each report.

MAINTENANCE AFTER CONSTRUCTION

Once construction is complete the tree protection fencing may be removed and the following measures performed to sustain and enhance the vigor of the preserved trees.

Mulch: Provide a 4-inch mulch layer under the canopy of trees. Mulch should include clean, organic mulch that will provide long-term soil conditioning, soil moisture retention, and soil temperature control.

Pruning: Pruning should *only* be done to maintain clearance and remove broken, dead or diseased branches. Pruning shall only take place following a recommendation by an ISA Certified Arborist and performed under the supervision of an ISA Certified Arborist. No more than 15% of the canopy shall be removed at any one time. All pruning shall conform to ISA or ANSI A300 standards.

Watering: Retained trees on site shall be watered as they were prior to the commencement of construction activity. Supplemental irrigation may be necessary for twelve months following substantial root pruning.

Watering Adjacent Plant Material: All plants near the trees shall be compatible with water requirements of said trees. Watering regime included in the site's landscape plan shall be developed with consideration for the water needs of retained trees.

Spraying: If the trees are maintained in a healthy state, regular spraying for insect or disease control should not be necessary. If a problem does develop, an ISA Certified Arborist should be consulted; the trees may require application of insecticides to prevent the intrusion of bark-boring beetles and other invading pests. All chemical spraying should be performed by a licensed applicator under the direction of a licensed pest control advisor.

Monitoring: All trees within 30 feet of construction activity shall be monitored by an ISA Certified Arborist for the first two years after construction completion. An annual monitoring report shall be submitted to the City Arborist. Each report shall summarize the inspection efforts, document observations and management actions taken, include photographs of each tree, and compare post-construction tree conditions with the original, pre-construction baseline condition. If any retained trees die within this inspection period, they shall be replaced at a ratio approved by the City.