120 Parkland Farms Boulevard Subsequent Mitigated Negative Declaration

Prepared for:

City of Healdsburg
401 Grove Street
Healdsburg, CA 95448-4723
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Acronyms and Abbreviations

AB	Assembly Bill
BAAQMD	Bay Area Air Quality Management District
CAAQS	California Ambient Air Quality standards
CAP	climate action plan
CARB	California Air Resources Board
CBSC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
dbh	diameter at breast height
DC	Development Cluster
DPM	diesel particulate matter
EIR	Environmental Impact Report
EOs	executive orders
EPA	U.S. Environmental Protection Agency
ESAs	environmentally sensitive areas
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
GHG	greenhouse gases
HFCs	hydrofluorocarbons
LOS	levels of service
MRZ	Mineral Resource Zone
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_X	nitrogen oxides
NSCAPCD	Northern Sonoma County Air Pollution Control District
PFCs	perfluorinated carbons
PM10 and PM2.5	particulate matter
ROG	reactive organic gases

SB	Senate Bill
SF_6	sulfur hexafluoride
SVP	Society of Vertebrate Paleontology
TAC	toxic air containments
TCC	Tree Carbon Calculator
U.S. 101	U.S. Route 101
UCMP	University of California Berkeley Museum of Paleontology
USFWS	U.S. Fish and Wildlife Service
VLR	Very Low Density
VMEP	Vegetation Management and Enhancement Plan
VMT	vehicle miles travelled

120 Parkland Farms Project Description

The proposed project would subdivide the 11.41-acre project site at 120 Parkland Farms Boulevard (APN 091-040-111 and 091-040-114) into 11 parcels and construct 11 single-family residential units with associated utilities (Figure 1). The project would cluster six lots at the western end of the property, ranging in size from 0.25 to 0.41 acres in area. Lots 7 through 10 range in size from 0.91 to 2.75 acres in area and are located on the central portion of the site. Lot 11, approximately 1.87 acres in size, would be located east of Canyon Run. Building envelopes are designated on each lot. These designate the portion of each lot that on which residential development would be allowed.

An existing dirt path on the project site would be improved as a new shared driveway that will access the majority of the new parcels from its intersection with Parkland Farms Boulevard (Lots 1 and 2 will access Rosewood Drive; Lots 3 through 10 will access the private street; and Lot 11 will access Canyon Run). Emergency egress will be provided from the site onto Long Acres Place, a public street at the eastern end of the site. Private vehicles will not be permitted to enter or exit onto Long Acres Place. This access point will allow garbage collection and utility connections. The project proposes to connect a new 8-inch water line between the existing 12-inch water main running along Parkland Farms Boulevard and the 8-inch water main in Long Acres Place.

The project has been designed, per City hillside development standards, to avoid locating residences on the ridgeline and to minimize tree removal. The site plan (Figure 2) identifies the envelopes within which future residences would be built. In order to comply with the Development Cluster (DC) Zoning Overlay, Habitat Preservation Areas are identified on Lots 7 through 11 in order to protect sensitive environmental features on the site. A total of 936 trees were inventoried on the project site. A total of 142 existing trees and 1 existing structure on the project site would be removed as part of the project. The tree total includes 63 pyrophytic trees that are proposed to be removed in order to improve wildfire safety at the project site.

As discussed below, the Area A Specific Plan and City ordinance provide protections for trees 20 feet or greater in height, and trees identified as heritage trees. Of the trees to be removed, 73 are 20 feet or greater in height and five are heritage trees. This includes 49 trees that are 20 feet or greater in height and three heritage trees located within proposed building envelopes and road/utility improvement areas.

Development will take place pursuant to the Vegetation Management and Enhancement Plan (VMEP) prepared for the project, which minimizes vegetation removal to the extent feasible taking available planting area and wildfire safety into account. The VMEP requires important trees to be protected during construction and provides standards for that protection. In addition, the VMEP identifies four fire safety zones within the site and sets out defensible space standards for development.

A preliminary geotechnical study report was prepared for the project. It identified a trace of the Healdsburg fault that traverses the site on the eastern edge of Lot 9. The building envelopes identified on each lot include the 50-foot setbacks required by the Alquist-Priolo Act to minimize potential hazard from faulting.

Accessory dwelling units will be built on Lots 1, 2, 3, 5, 6, 7, and 10. These will be located within the building envelopes shown on the site map.

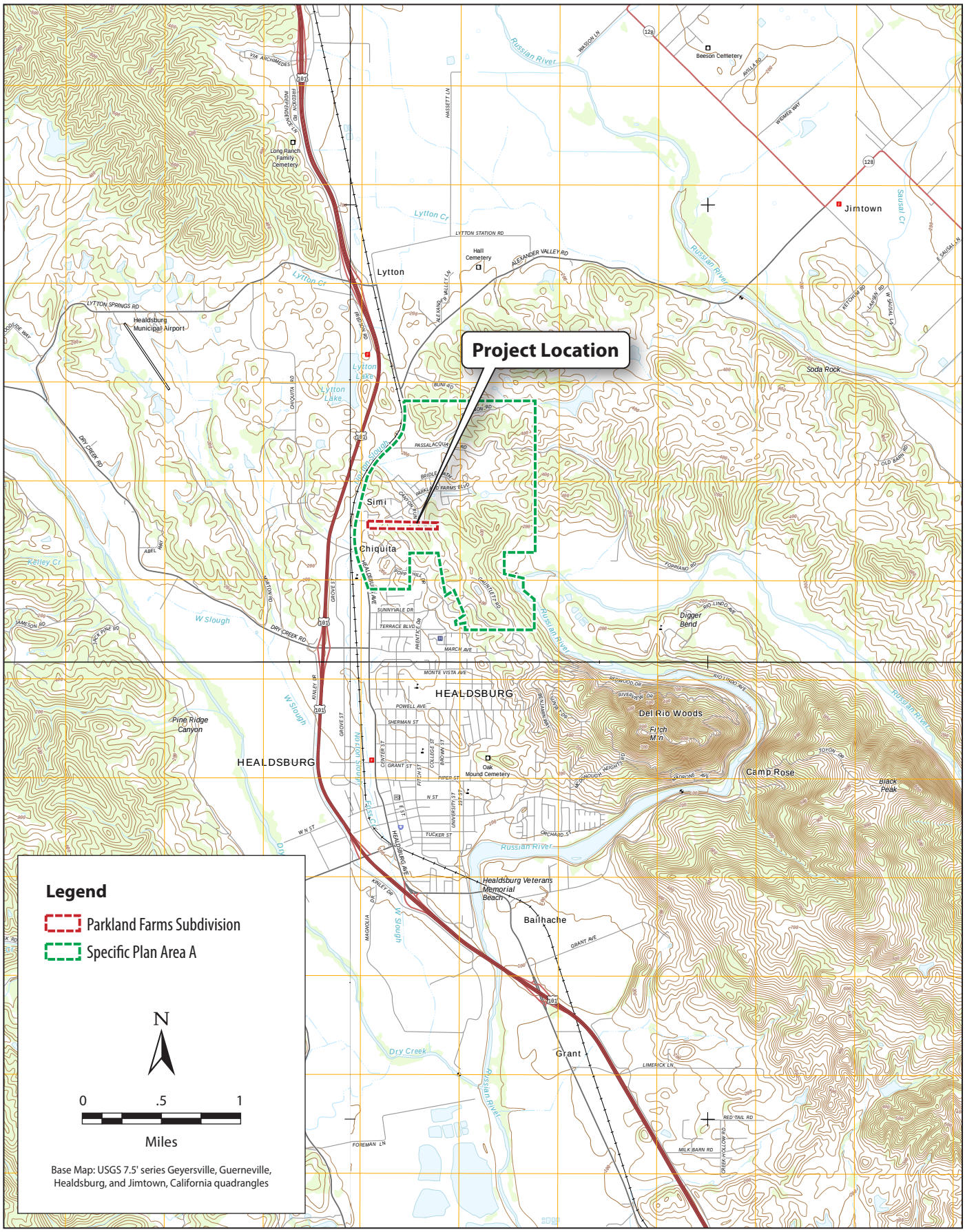
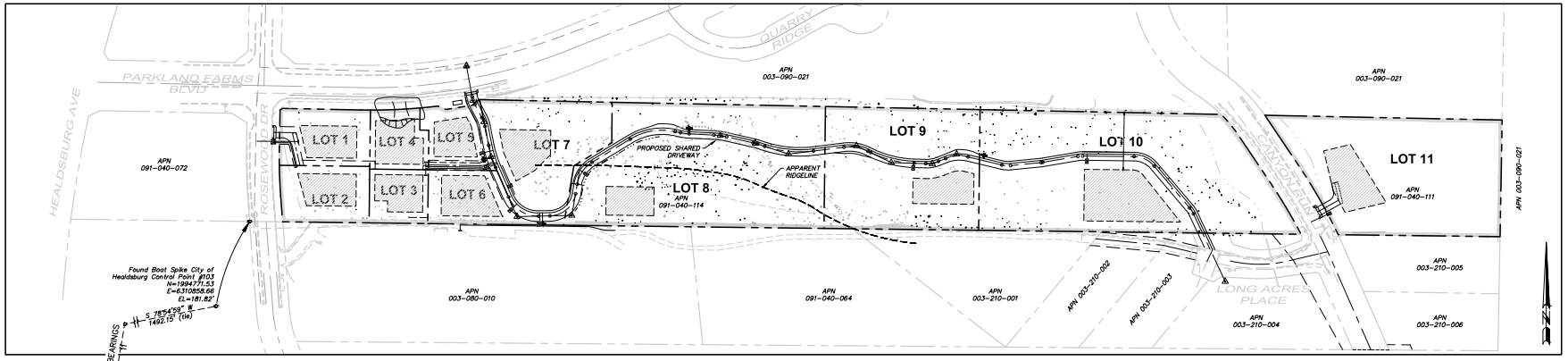


Figure 1
Project Location



OVERALL SITE PLAN

100' 50' 0 50' 100' 200' 300'

Graphic Scale: 1" = 100'

LOT SUMMARY		
Lot Number	Area, SF	Area, AC
1	18,009	0.41
2	17,614	0.40
3	11,088	0.25
4	11,719	0.27
5	13,901	0.32
6	15,255	0.35
7	39,757	0.91
9	65,926	1.51
10	119,696	2.75
11	81,481	1.87

SHEET INDEX

Water Pressure Information			
Lot Number	Elevation difference between highest floor* of building and bottom of City reservior**, ft	Static Pressure, PSI	Special Requirements
1	179	77.5	None
2	170	73.6	None
3	157	68.0	None
4	157	68.0	None
5	160	69.3	None
6	145	62.8	None
7	137	59.3	None
8	62	26.8	Booster System
9	67	29.0	Booster System
10	129	55.8	None
11	100	43.3	None

* Homes are assumed to be two (2) story
** Inversion North, bottom elevation 403

OWNER / SUBDIVIDER

120 PARKLAND FARMS LLC
1746 UNION STREET
SAN FRANCISCO, CALIFORNIA 94123
CONTACT: BARRETT ELMER

ENGINEER / SURVEYOR

ADOBE ASSOCIATES, INC.
1220 N DUTTON AVENUE
SANTA ROSA, CALIFORNIA 95401
PHONE: (707) 541-2300
FAX: (707) 541-2301

BENCHMARK

FOUND BOAT SPIKE
CITY OF HEALDSBURG
CONTROL POINT #103.
NORTHING = 1994771.53
EASTING = 6310858.66
ELEVATION = 181.82'
(NAVD 1988 DATUM).

PROJECT DATA

GENERAL PLAN DESIGNATION

VLR – VERY LOW DENSITY (0–1 DU/AC)

ZONE DISTRICT:

R–1, 40,000
PROPOSED CLUSTERING PER AREA A SPECIFIC PLAN RIDGELAND DEVELOPMENT AREA

OCCUPANCY TYPE:

SINGLE FAMILY

EXISTING USE:

VACANT/FALLOW

PROPOSED USE:

11 CUSTOM SINGLE FAMILY HOMES; 1 INCLUSIONARY UNIT

SITE INFORMATION

SITE AREA:

496,839 SF = 11.41 ACRES

AVERAGE LOT SIZE:

45,167 SF = 1.04 ACRES

SMALLEST LOT SIZE:

11,088 SF = 0.25 ACRES

LARGEST LOT SIZE:

119,696 SF = 2.75 ACRES

TOTAL LOT AREA:

496,839 SF = 11.41 ACRES

TOTAL RIGHT OF WAY DEDICATION:

NONE PROPOSED

PRELIMINARY GRADING QUANTITIES:

Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction. Volumes will be subject to change during final design.

CUT	FILL	NET
1500 CY	90 CY	1410 CY (CUT)

GENERAL NOTES

1. ZONING DESIGNATION PER THE HEALSBURG 2030 GENERAL PLAN: CHAPTER 2 (LAND USE)
2. SETBACKS PER CITY OF HEALDSBURG LAND USE CODE
3. UTILITIES SHOWN HEREON ARE BASED UPON SURFACE FEATURES INDICATED BY FIELD VERIFICATION PERFORMED IN MARCH OF 2014. VERIFICATION OF UNDERGROUND UTILITIES NOT EVIDENT BY SURFACE STRUCTURES WAS NOT VERIFIED FOR THIS SURVEY, A SUBSURFACE LOCATING COMPANY WOULD NEED TO LOCATE SAID UTILITIES FOR THIS MAP TO REFLECT ANY CHANGE OF, OR LOCATION OF UTILITIES NOT SHOWN HEREON.
4. FEATURES SHOWN HEREON ARE EXISTING AS OF THE DATE OF THE FIELD SURVEY PERFORMED BY ADOBE ASSOCIATES, INC. IN MARCH OF 2014.
5. THERE WAS NO VISIBLE EVIDENCE OF ENCROACHMENTS AT THE TIME OF THE FIELD SURVEY, EXCEPT AS SHOWN HEREON.
6. CONTOURS SHOWN OBTAINED FROM LIDAR DATA.
7. LOT 4 WILL BE DEDICATED AS AN INCLUSIONARY UNIT
8. LOTS 1, 2, 3, 5, 6, 7 AND 10 WILL BE REQUIRED BY DEED RESTRICTION TO CONTSTRUCT ACCESSORY DWELLING UNITS.

UTILITIES

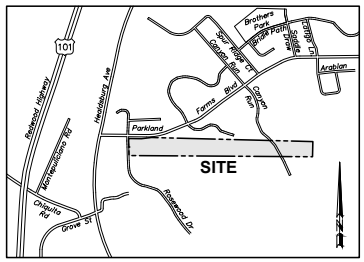
SEWER SERVICE: CITY OF HEALDSBURG
WATER SERVICE: CITY OF HEALDSBURG
GAS: PG&E
ELECTRIC: CITY OF HEALDSBURG
CABL/TELEPHONE: ATT / COMCAST
FIRE PROTECTION: CITY OF HEALDSBURG

ABBREVIATIONS

AAI	ADOBE ASSOCIATES, INC.	LF	LINEAR FEET
AB	AGGREGATE BASE	MAX	MAXIMUM
AC	ASPHALT CONCRETE	ME	MATCH EXISTING
AD	AREA DRAIN	MH	MANHOLE
BLDG	BUILDING	MIN	MINIMUM
BM	BENCH MARK	NTS	NOT TO SCALE
BOV	BLOWOFF VALVE	NO	NUMBER
C	COMPACT PARKING	OC	ON CENTER
CB	CATCH BASIN	OR	OFFICIAL RECORD
CL	CLASS	PL	PROPERTY LINE
℄	CENTERLINE	PP	POWER POLE
CMP	CORRUGATED METAL PIPE	PUE	PUBLIC UTILITY EASEMENT
CO	CLEANOUT	RCE	REGISTERED CIVIL ENGINEER
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
DI	DROP INLET	R/W	RIGHT OF WAY
DWG	DRAWING	RWL	RECLAIMED WATER LINE
DWY	DRIVEWAY	S	SLOPE
EG	EXISTING GROUND	SAD	SEE ARCHITECTURAL DRAWINGS
EP	EDGE OF PAVEMENT		
EL	ELEVATION	SD	STORM DRAIN
ESMT	EASEMENT	SS	SANITARY SEWER
EVA	EMERGENCY VEHICLE ACCESS	STA	STATION
EX	EXISTING	STD	STANDARD
FL	FLOWLINE	TC	TOP OF CURB
FG	FINISH GRADE	TYP	TYPICAL
FH	FIRE HYDRANT	W	WATER
FS	FINISHED SURFACE	WM	WATER METER
FSS	FIRE SAFE STANDARD	WS	WATER SERVICE
GB	GRADE BREAK	WV	WATER VALVE
GR	GRATE	WWF	WELDED WIRE FABRIC
IG	INVERT GRADE		

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		PROPERTY BOUNDARY
		CURB & GUTTER
		SANITARY SEWER & MANHOLE
		SANITARY SEWER & CLEANOUT
		STORM DRAIN & MANHOLE
		STORM DRAIN & DRAINAGE INLET (DI)
		STORM DRAIN & AREA DRAIN (AD)
		WATER SERVICE / WM WATER SERVICE / RPBP
		FIRE LINE / DDCV
		BLOW-OFF
		WATER MAIN & GATE VALVE
		FIRE HYDRANT
		UTILITY POLE W/WO GUY WIRE
		DRAINAGE SWALE
		DAYLIGHT LINE
		APPROXIMATE LIMIT OF GRADING/DISTURBANCE
300	300	INDEX CONTOUR
299	299	INTERMEDIATE CONTOUR
GB		GRADE BREAK W/ SLOPE SYMBOL
		LIGHT POLE
XXX		TREE TO BE REMOVED
	XXX	HERITAGE TREE
		REPORTED FAULT LINE



VICINITY MAP

NTS

Source: Adobe Associates, Inc., 2018

Graphics ... 00590.15 (12/7/18) AB

Figure 2
Site Plan

Environmental Checklist

1. **Project Title:** 120 Parkland Farms Boulevard
2. **Lead Agency Name and Address:** City of Healdsburg
   401 Grove Street
   Healdsburg, CA 95448-4723
3. **Contact Person and Phone Number:** Scott Duiven
   Senior Planner
   sduiven@ci.healdsburg.ca.us, (707) 431-3482
4. **Project Location:** City of Healdsburg, CA
5. **Project Sponsor's Name and Address:** Urban Green Investments, LLC
   1746 Union Street
   San Francisco, CA 94123-4407
6. **General Plan Designation:** VLR – Very Low Density
7. **Zoning:** Residential-1-40,000
8. **Description of Project:**

   The proposed project would subdivide the project site at 120 Parkland Farms Boulevard (APN 091-040-111 and 091-040-114) into 11 parcels and construct 11 single-family residential units with associated utilities. An existing dirt path on the project site would be improved as a new shared driveway that will access the majority of the new parcels from its intersection with Parkland Farms Boulevard (Lots 1 and 2 will access Rosewood Drive; Lot 11 will access Canyon Run). Emergency egress will be provided from the site onto Long Acres Place, a public street at the eastern end of the site. Private vehicles would not be permitted to enter or exit onto Long Acres Place. This access point will also allow garbage collection and utility connections. The project proposes to connect a new 8-inch water line between the existing 12-inch water main running along Parkland Farms Boulevard and the 8-inch water main in Long Acres Place.

   The project has been designed to avoid locating residences on the ridgeline and to minimize, although not avoid, tree removal. The site map (Figure 2) identifies the envelopes within which future residences would be built. A total of 142 existing trees and 1 existing structure on the project site would be removed as part of the project. The tree total includes 63 trees to be removed in order to improve wildfire safety at the project site. Of the 20 heritage trees identified on the project site, 5 are proposed to be removed.

   Accessory dwelling units are required to be built on Lots 1, 2, 3, 5, 6, 7, and 10. These will be located within the building envelopes shown on the site map.

9. **Surrounding Land Uses and Setting:**

   The project site at 120 Parkland Farms Boulevard is on the south side of Parkland Farms Boulevard between Rosewood Drive and the ridge line in the northern portion of the City of Healdsburg. The two parcels total approximately 11.4 acres and are in a Residential-1-40,000 Zoning District that is designated by the City's General Plan as Very Low Density (VLR). The site is within the Specific Plan for Area A, for which the City certified an EIR. The project site is currently occupied by one vacant structure, grassland, and trees. The project site is primarily adjacent to residential uses.

10. **Other Public Agencies Whose Approval is Required:**

    City of Healdsburg Public Works Department – water and sewer connections

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City offered California Native American tribes that are on the Native American Heritage Commission's consultation list that are traditionally and culturally affiliated with the geographic area of the proposed project the opportunity to consult in 2016, but received no requests for consultation over the project (Roop 2016).

Environmental Factors Potentially Affected

The environmental factors checked below potentially would be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Mandatory Findings of Significance
☐	Utilities/Service Systems	☐	Wildfire	☐	

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☒ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT, including revisions or mitigation measures that are imposed upon the project, a subsequent MITIGATED NEGATIVE DECLARATION will be prepared.

Signature Date

Printed Name For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact". The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from Section XVII, "Earlier Analyses", may be cross-referenced.)
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where earlier analyses are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

I. Aesthetics	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Background

The proposed project is in the northern portion of the City of Healdsburg, just north of the Russian River valley east of U.S. Route 101 (U.S. 101) and northwest of the Russian River. This area is characterized by gently rolling terrain, wineries, and low-density residential development. The project vicinity includes single-family residential development, roadways and related infrastructure, and mixed oak woodlands.

Views on the local streets surrounding the project area, including Rosewood Drive, Parkland Farms Boulevard, and Canyon Run are dominated by the surrounding residential development and the tree-lined hills that are characteristic of the study area. Viewers traveling west on Parkland Farms Boulevard have views of the distant hills. Overall, the site has high visual quality.

Discussion

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Vegetated ridgelines are considered important visual elements in the local viewscapes, and the City's General Plan emphasizes the preservation and enhancement of these ridgelines. The proposed project is immediately adjacent to a major scenic ridgeline identified in the *City of Healdsburg General Plan Policy Document* (City of Healdsburg 2015, p 7-4). This ridgeline is south of Parkland Farms Boulevard and runs east from Rosewood Drive. The addition of 11 single-family residential units, a private road, and other elements would alter the visual character of the 11.4-acre site by

reducing the amount of natural-appearing oak woodland by converting it to suburban residential use.

The Specific Plan Area A EIR concluded that impacts on visual quality on visually sensitive areas would be less than significant, with mitigation to incorporate ridgeline design development techniques. The same design techniques, as embodied in the Specific Plan for Area A Community Design Element (Section 11.4.2, Ridgelands), will be applied to the proposed project. Specifically, building envelopes are located to avoid building on the ridge.

The development of the site was anticipated in the Specific Plan for Area A. As illustrated in the visual simulations prepared by Adobe Associates in the *Site Photographs and Visual Simulation Package* submitted to the City, (2018) future homes would be in character with existing development and consistent with the Specific Plan for Area A Community Design Element. (See Appendix A and Figures 3–9) The existing ridgeline would remain, with the new homes located on the slopes below. From some aspects, new homes would be very visible from adjoining public streets. From others, they are obscured by vegetation or the angle of view.

The development of 11.4 acres would be consistent with anticipated changes in visual character and will meet City zoning and design requirements for building locations including being located so at to avoid building on the ridge. Because the project is consistent with the Specific Plan for Area A Community Design Element, and that element has been determined to be less than significant with mitigation incorporating ridgeline design development techniques, the project will not result in a more severe significant impact, and no additional mitigation other than that proposed in the Specific Plan Area A EIR (City of Healdsburg 1994) is required.

The area sharing views with the project site (i.e., the viewshed) has not substantially changed from the environment anticipated in the 1994 Specific Plan for Area A and analyzed in the EIR for that specific plan. The development resulting from the project is consistent with the Specific Plan for Area A and therefore will not increase the expected impact level. Accordingly, the project will not substantially change the cumulative impact of development on the viewshed.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

Healdsburg Avenue, from approximately Grove Street to the northern boundary of the City's Sphere of Influence, is considered a local scenic route. In addition, U.S. 101 is considered a scenic highway throughout the City's Sphere of Influence. (City of Healdsburg 2015, p 7-6). The 1994 Specific Plan Area A EIR concluded that impacts on visual *quality* of views within a scenic route corridor are less than significant, with implementation of mitigation to incorporate ridgeline design development techniques. These requirements are embodied in the Area A Specific Plan Community Design Element. Views of the 11.4-acre project area are generally not visible from U.S. 101 or Healdsburg Avenue. The primary viewer groups would be existing residences and local motorists on the surrounding roads: Parkland Farms Boulevard, Rosewood Drive, Quarry Ridge, Canyon Run, and Long Acres Place. Furthermore, the design techniques set out in the Community Design Element will be applied to the proposed project. Because the project is consistent with the Specific Plan for Area A Community Design Element, and that element has been determined to be less than significant with mitigation incorporating ridgeline design development techniques, the project the development of 11.4 acres would not result in a more severe significant impact, and no additional mitigation other than that proposed in the Specific Plan Area A EIR is required. Additionally, there are no historic buildings located within the project area.

Graphics ... 00590.15 (12/7/18) AB

Figure 3
View #1 Simulation

Figure 4
View #2 Simulation

Graphics ... 00590.15 (12/7/18) AB

ICF

Figure 5
View #3 Simulation

Graphics... 06590.15 (12/7/18) AB

Figure 6
View #4 Simulation

Graphics... 00590.15 (12/7/18) AB

Figure 7
View #5 Simulation

Graphics... 00590.15 (12/7/18) AB

Figure 8
View #6 Simulation

Graphics ... 005901S (12/7/18) AB

Figure 9
View #7 Simulation

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Specific Plan Area A EIR concluded that impacts to visual character of the site are significant and unavoidable, even with mitigation to incorporate design standards and techniques within 200 feet of ridgeline zones. The proposed project entails removal of 142 of the 936 inventoried trees. This would include five heritage trees. However, removal of the trees would not considerably contribute to this impact. Article II of the City's Land Use Code contains Heritage Tree Protection standards (City of Healdsburg 2011, Chapter 20.24, Article II). These standards regulate the removal of heritage trees that are sited on private property and public rights-of-way.

Mitigation of tree removal by means of planting additional trees on the property is not feasible. Section 11.4.2 Standard a(i) which states "Structures shall be designed and located, and grading and other construction activities shall be performed so that no trees over 20 feet tall are removed or disturbed. If removal or disturbance of such trees is found to be necessary, replacement is required, using tree species native to the local area with minimum height and spread of 12 and 8 feet, respectively, at a minimum replacement ratio of 3:1."

A total of 936 trees were inventoried within the boundaries of the proposed tentative map, of which 142 trees are to be removed. 120 of these are 20 feet or greater in height and would require 3:1 mitigation. The site cannot support an additional 360 trees due to the size of the project site and adding trees would increase risk of wildfire and negatively impact wildfire risk management. In fact, removal of some trees is necessary in order to reduce wildfire risk by providing defensible space around future residences.

As an alternative approach to 3:1 replacement, required by the City, the applicant has prepared a Vegetation Management and Enhancement Plan (VMEP) addressing both tree retention and fire-safe principles. (See Appendix B). The VMEP identifies four defensible space zones within the site, with varying requirements for vegetation removal and maintenance. It also includes "specific tree protection guidelines" in its Appendix B specifying restrictions on construction that is near trees slated for retention. Appendix B identifies tree protection zones, stipulates fencing requirements around such zones, restricts grading and trenching (including foundation work) within such zones, specifies provisions for tree care and maintenance, and includes specific requirements for protection of heritage trees that may be affected by development. (McNair Landscape Architecture. 2018).

The Specific Plan Area A EIR disclosed that development of this site would result in significant and unavoidable impacts on visual character The proposed project is consistent with the specific plan and therefore fall within this impact. Because scenic resources (trees and vegetation) would be managed to minimize tree removal and enhance the health of remaining trees, this impact would not result in a more severe significant impact than the impact discussed in the Specific Plan Area A EIR.

Appendix B of the September 2018 *Vegetation Management and Enhancement Plan* includes specific protections for the heritage trees that are to be retained on site, as follows:

HERITAGE TREE SPECIFIC GUIDELINES

1. Any work occurring within the TPZ [tree protection zone] of a heritage tree shall be performed under the observation of the project arborist in accordance with this section.

2. Procedure (to be implemented in the order presented):

    a. Prune tree as necessary for safety, health and structure, in accordance with the guidelines contained herein. Perform pruning under the supervision of an arborist certified by the International Society of Arboriculture. Do not remove living wood unless directed to do so by the certified arborist.

    b. Inspect the tree for pest infestation. Notify the certified arborist if significant pest presence.

    c. Apply a four inch layer of chipped bark mulch, containing a wide range of particle sizes, preferably from on-site tree chipping procedures, over the soil surface within the greater TPZ. Do not use mineral mulches.

    d. Install contiguous temporary protection fencing, at a minimum height of 4', at or beyond the TPZ, unless work is shown on the approved improvement plan to occur within the TPZ. In this case, locate the fencing as close to the limit of work as possible to create maximum protection. Do not store materials within the fenced area. Tensar orange plastic fencing and chain link fencing are preferred materials; do not use post and cable fencing. Encroaching into the fenced area shall not occur without the approval and supervision of the project arborist.

    e. Place 2' x 3' signage on the tree protection fencing at an interval of 20'. Signage shall indicate that tree has Heritage status and fences are not to be altered without the approval and supervision of the project arborist.

    f. Coordinate with the certified arborist to verify if supplemental irrigation is necessary based on the work shown on the approved improvement plan.

    g. If grading or trenching is shown on the approved improvement plan to occur within the TPZ (but outside the fencing), perform it under the direct supervision of the certified arborist. Do not tear roots; cut roots cleanly by hand.

    h. Coordinate with the project arborist to inspect each heritage tree at a time interval of not more than 30 days. The arborist will prepare a brief report after each inspection and provide to the City of Healdsburg.

With the implementation of these guidelines, the Project will avoid any new or substantially more severe impact on heritage trees. Mitigation Measure AES-1 will ensure that the guidelines are implemented.

Mitigation Measure AES-1: Implement the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*

The developer shall be required to implement the the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*. The City shall require, as a condition of approval of the Project, that the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan* provisions for maintenance and maintenance fees are implemented and shall be a requirements for continued implementation for future residents. . The City will check for compliance with the protective provisions of the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*, including those for protection of heritage trees, during construction of any improvements prior to finalization of the tentative map. No final map shall be approved without compliance with the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*. The City will also check for compliance during the issuance of building permits and the construction of homes on the site. The City will issue a stop work order if the construction fails to comply with the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan* effective until such time as compliance is achieved.

d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The issue of light and glare was not addressed in the Specific Plan Area A EIR. The Specific Plan Area A EIR considered impacts of more than 600 houses, plus roads and other project elements. The Specific Plan Area A EIR identified mitigation to incorporate ridgeline development design techniques, including screening structures with existing topography and vegetation. The addition of 11 residences on 11.4 acres would not adversely affect daytime views in the project area, which is zoned for residential development, through the addition of light or glare. Nighttime views may be affected if the residences include exterior lights that are not screened. This impact would be less than significant, with the following mitigation measure:

Mitigation Measure AES-2: Minimize Night Light and Glare

With the exception of street lighting, all exterior lighting shall be designed consistent with the Model Outdoor Lighting Ordinance jointly published by the Illuminating Engineering Society and the International Dark-Sky Organization in order to deliver quality illumination without unduly intruding on the nighttime environment. The most appropriate standards are those contained in Section V, Residential Lighting. Lighting shall comply with dark sky strategies and best practices for downlighting, shielding, and avoidance of light spillage.

Street lighting along the private driveway shall be shielded to direct lights onto the road and minimize spillage onto adjoining land. No lights along the private driveway shall have light emitted above 90 degrees from vertical.

References Cited

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Illuminating Engineering Society and International Dark-Sky Association. 2011. *Model Outdoor Lighting Ordinance*. Tucson, AZ. June 15.

McNair Landscape Architecture. 2018. *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*. September.

II. Agriculture and Forestry Resources	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Specific Plan Area A EIR concluded that the implementation of the specific plan would result in an unavoidable significant impact on agricultural resources due to the cumulative loss of agricultural lands. No mitigation measures were required.

b) Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

The proposed project would construct 11 residential units on the 11.4-acre project site. No active agricultural or forestry uses are on the project site and the project site is not designated or zoned for agricultural or forestry uses (City of Healdsburg 2014a, 2014b). The project site is mapped as Grazing Land, Urban Built-Up Land, and Other Land and does not contain Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Williamson Act contract lands (Department of Conservation 2015a, 2015b).

c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

and

d) Result in the loss of forest land or conversion of forest land to non-forest use?

The proposed project would result in the loss of grazing land and, therefore, would contribute to the significant impact related to the loss of agricultural lands identified in the Specific Plan Area A EIR. However, the loss of up to 11.4 acres of inactive grazing land that is primarily adjacent to residential development would not contribute considerably to this impact. Therefore, the proposed project would not result in a substantially more severe significant impact related to agricultural and forestry resources that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

References Cited

California Department of Conservation. 2015a. Farmland Mapping and Monitoring Program. Sonoma County Important Farmland 2012. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/son12.pdf. Accessed: October 28, 2015.

California Department of Conservation. 2015b. The Land Conservation Act. Sonoma County Williamson Act FY 2013/2014. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/. Accessed: October 28, 2015.

City of Healdsburg. 2014a. *Healdsburg 2030 General Plan*. Figure 3 – Land Use Plan. Adopted July 2009. Print Date December 18, 2014.

City of Healdsburg. 2014b. City of Healdsburg Zoning Map. Map Date August 27, 2014.

III. Air Quality	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR determined that neither construction nor operation of the project would generate ozone precursors—reactive organic gases (ROG) and nitrogen oxides (NO_X)—in excess of thresholds adopted by the Northern Sonoma County Air Pollution Control District (NSCAPCD). Localized carbon monoxide (CO) concentrations generated by increased traffic at intersections near the project site were also determined to be less than significant. However, particulate matter (PM10 and PM2.5) generated during construction and by new wood-burning stoves were considered to be significant. Implementation of Specific Plan Area A Mitigation Measures 9.1 and 9.2 would reduce these impacts to a less-than-significant level.

The Specific Plan Area A EIR established baseline air quality levels based on monitoring data for ozone, CO, and PM10 collected at the Healdsburg Municipal Airport monitoring station from 1987 through 1992. The California Air Resources Board (CARB) has published more recent monitoring data for ozone, which indicates that the monitoring station has not exceeded federal or state ozone standards in the past 3 years (2015-2017) (California Air Resources Board 2016a). The Healdsburg Municipal Airport station no longer monitors for CO and PM10; updated information beyond that presented in the Specific Plan Area A EIR is, therefore, not available.

The air quality regulatory framework described in the Specific Plan Area A EIR is applicable to this analysis. However, since publication of the Specific Plan Area A EIR in 1994, the U.S. Environmental Protection Agency (EPA) and CARB have updated the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality standards (CAAQS), respectively. The current NAAQS and CAAQS are shown in Table 1. The EPA has also redesignated Northern Sonoma County as an attainment area for the PM10 NAAQS. Accordingly, Northern Sonoma County is currently in

attainment for all federal and state air quality standards (U.S. Environmental Protection Agency 2016; California Air Resources Board 2016b).

Table 1. Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards[a]	
			Primary	Secondary
Ozone	1-hour	0.09 ppm	None[b]	None[b]
	8–hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM10)	24-hour	50 μg/m^3	150 μg/m^3	150 μg/m^3
	Annual mean	20 μg/m^3	None	None
Fine Particulate Matter (PM2.5)	24-hour	None	35 μg/m^3	35 μg/m^3
	Annual mean	12 μg/m^3	12.0 μg/m^3	15 μg/m^3
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide[c]	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m^3	None	None
	Calendar quarter	None	1.5 μg/m^3	1.5 μg/m^3
	3-month average	None	0.15 μg/m^3	0.15 μg/m^3
Sulfates	24-hour	25 μg/m^3	None	None
Visibility Reducing Particles	8-hour	–[d]	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board 2016c.

PM2.5 = Particulate matter 2.5 micrometers or less in diameter.
PM10 = Particulate matter 10 micrometers or less in diameter.
ppm = parts per million.
μg/m^3 = micrograms per cubic meter.

[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

[b] The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for State Implementation Plans.

[c] The annual and 24-hour NAAQS for SO_2 apply only for 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for 24-hour and annual NAAQS.

[d] CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more due to particles when relative humidity is less than 70%.

As discussed in the Specific Plan Area A EIR, the NSCAPCD is responsible for ensuring the NAAQS and CAAQS are met within Northern Sonoma County. The air district has adopted thresholds of significance for ROG, NO_X, CO, PM10, and PM2.5, which have been updated since the Specific Plan Area A EIR. NSCAPCD's thresholds were developed to evaluate stationary sources pursuant to NSCAPCD Rule 130, but can be used to assess whether construction and operational emissions from development projects require more detailed environmental review and mitigation (Saschin pers. comm. A). Accordingly, this analysis utilizes NSCAPCD's updated thresholds, shown in Table 2, to evaluate the significance of air quality impacts associated with the proposed project.

Table 2. NSCAPCD Thresholds of Significance

Pollutant	Threshold (tons per year)
ROG	40
NO_X	40
CO	100
PM10	15
PM2.5	10

Source: Saschin pers. comm. (A).

Discussion

Would the project:

a) Conflict with or Obstruct an Air Quality Plan

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds estimates used to develop applicable air quality plans. Projects that propose development that is consistent with the growth anticipated by the relevant land use plans would be consistent with the current air quality plans. Likewise, projects that propose development that is less dense than anticipated within a General Plan (or other governing land use document) would be consistent with the air quality plans because emissions would be less than estimated for the region. Because Northern Sonoma County is currently in attainment with all state and federal air quality standards, there are no applicable air quality plans. However, a review of population and employment projections is still appropriate as it provides a basis for determining whether the project is consistent with the current air quality management framework established under the City's General Plan.

The proposed project would construct 11 single-family residential units with associated utilities. As discussed in Section XI, Land Use and Planning, the proposed project would be consistent with current land use and zoning designations identified in the City's General Plan. The 11 residential units would increase the City's population by 26 - 32 residents, but this increase is within the development projected under the Specific Plan for Area A. The project, therefore, would be consistent with recent growth projections for the region and would not conflict with the General Plan or current air quality management framework for the region. Accordingly, the proposed project would not result in a significant impact related to consistency with air quality plans that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

b) Violate Air Quality Standards or Contribute to an Air Quality Violation

Construction

Project construction has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction worker vehicle trips, and truck hauling trips. In addition, fugitive dust emissions would result from site grading and demolition of the existing 1,100-square-foot structure. Criteria pollutant emissions generated by these sources were quantified using CalEEMod (version 2016.3.2). Model defaults based on construction of 11 single-family homes were used to define the construction schedule and equipment activity. It was assumed that 1,500 cubic yards of material would be removed and 90 cubic yards would be used for fill during site grading.

Table 3 summarizes estimated construction emissions**.** It was assumed construction would begin in summer 2020.

Table 3. Estimated Criteria Pollutant Emissions from Project Construction (tons per year)

				PM10			PM2.5		
Year	ROG	NO_X	CO	Dust	Exhaust	Total	Dust	Exhaust	Total
2020	0.33	3.20	1.88	0.20	0.18	0.38	0.10	0.17	0.27
2021	0.63	3.00	2.08	0.01	0.20	0.20	<0.01	0.19	0.19
NSCAPCD Threshold	*40*	*40*	*100*	*–*[a]	*–*	*15*	*–*[a]	*–*	*10*
Exceed Threshold?	*No*	*No*	*No*			*No*			*No*

[a] NSCAPCD does not have a separate threshold for construction-related dust, but recommends implementation of on-site dust controls, such as watering and reducing vehicle speeds (Saschin pers. comm. [B]).

As shown in Table 3, construction of the proposed project would not generate emissions in excess of NSCAPCD thresholds. Implementation of Specific Plan Area A EIR Mitigation Measure 9.1 would further reduce PM emissions through the application of dust controls, including on-site watering. The use of on-site dust controls is consistent with NSCAPCD guidance to reduce localized PM emissions. Accordingly, the proposed project would not result in a significant impact related to construction emissions that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

Operation

Project operation has the potential to create air quality impacts from mobile, area, and energy sources. Mobile sources include daily resident trips, visitor trips, and waste management truck trips. Area sources include landscaping equipment, off-gassing during the reapplication of architectural coatings, and consumer products (e.g., solvents, cleaning supplies, cosmetics, toiletries). Energy sources include natural gas combustion for cooking and space heating. Criteria pollutant emissions generated by these sources were quantified using CalEEMod (version 2016.3.2) and are summarized in Table 4. It was conservatively assumed all structures would be fully occupied immediately following construction in 2021.

Table 4. Estimated Criteria Pollutant Emissions from Project Operation (tons per year)

Source	ROG	NO_X	CO	PM10	PM2.5
Mobile	0.05	0.25	0.62	0.11	0.11
Area	0.74	0.01	0.86	0.11	0.03
Energy	<0.01	0.01	0.01	<0.01	<0.01
Total[a]	0.79	0.28	1.49	0.22	0.14
NSCAPCD Threshold	*40*	*40*	*100*	*15*	*10*
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*

[a] Values may not add due to rounding.

As shown in Table 4, operation of the proposed project would not generate emissions in excess of NSCAPCD thresholds. Implementation of Specific Plan Area A EIR Mitigation Measure 9.2 would further reduce PM emissions from wood-burning stoves. Accordingly, the proposed project would not result in a significant impact related to operational emissions that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

c) Result in a cumulatively considerable net increase of criteria pollutants

As mentioned above, Northern Sonoma County is in attainment for all federal and state standards for criteria pollutants. Construction and operation of the project would generate minor amounts of criteria pollutants, but these would be well below NSCAPCD thresholds and, therefore, would not negatively impact regional air quality (see Tables 3 and 4). However, cumulative impacts could result if the proposed project were constructed concurrently as other development projects in the area. Given the urban nature of the project area, it is not anticipated that extensive construction would occur concurrent with the project, other than minor residential and commercial maintenance and upgrades. Possible cumulative impacts on air quality as a result of construction activities in the area would be addressed by compliance with NSCAPCD rules and regulations, which apply to all construction projects. Similarly, long-term operational emissions would be subject to the air quality management framework established under the General Plan, as evaluated under item 3a. Therefore, the proposed project would not result in a significant cumulative impact that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

d) Expose sensitive receptors to substantial pollutant concentrations

Sensitive receptors are typically defined as facilities that attract children, the elderly, people with illnesses, or others sensitive to the effects of air pollution. Examples of sensitive receptors include residences, hospitals, schools, parks, and places of worship. The project area is immediately adjacent to residential land uses. Brothers Park is also approximately 0.50 mile north of the project area.

Construction

The primary pollutants of concern with respect to health risks to sensitive receptors during construction are fugitive dust and diesel particulate matter (DPM). Grading activities and soil movement would generate localized fugitive dust (PM). When inhaled, PM can irritate the lungs and damage the respiratory tract. As shown in Table 3, construction-generated dust would be minor and primarily limited to grading activities in 2020. Dust emissions would be controlled through implementation of Specific Plan Area A EIR Mitigation Measure 9.1, which requires watering and other on-site best management practices. Accordingly, the proposed project would not expose

sensitive receptors to substantial fugitive dust concentrations or result in a significant impact that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

DPM is classified by CARB as a carcinogen. Receptors adjacent to the project may be exposed to DPM generated by on-site diesel-powered equipment, such as cranes and backhoes. However, as shown in Table 3, construction-related DPM emissions would be minor and would not exceed 0.2 ton per year. These emissions would dissipate as a function of distance and would be lower at the nearest sensitive receptor. Estimated construction emissions would also be short-term and occur for less than 2 years. This amount of time is significantly lower than the 30-year exposure period typically associated with chronic cancer health risks. Given the limited magnitude of construction emissions and short-duration of construction activities, the proposed project would not expose sensitive receptors to substantial DPM concentrations or result in a significant impact that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

Operation

The California Supreme Court has determined that impacts of the environment on a project are not subject to CEQA review and are not considered to be significant. (*California Building Industry Assoc. v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369) The following is provided for information only.

CARB's (2005) *Air Quality and Land Use Handbook* contains recommendations that will "help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution" through distance buffers between sensitive receptors and certain land uses known to generated toxic air containments (TAC). These distance recommendations are assessed as follows:

- Heavily traveled roads. CARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. U.S. 101 is more than 1,200 feet west of the project site. Existing traffic volumes on Healdsburg Avenue, approximately 400 feet from the project, do not exceed 2,000 daily trips (Christopher A. Joseph & Associates 2009).
- Distribution centers. CARB recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. There are no distribution centers within 1,000 feet of the project site.
- Fueling stations. CARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. There are no fueling stations within 300 feet of the project site. The nearest gas station is 0.5 mile south of the project site.
- Dry cleaning operations. CARB recommends avoiding siting new sensitive land uses within 300 feet of any dry cleaning operation that uses perchloroethylene. For operations with two or more machines, ARB recommends a buffer of 500 feet. For operations with three or more machines, CARB recommends consultation with the local air district. There are no dry cleaning operations within 300 feet of the project site. The nearest dry cleaner is 0.6 mile south of the project site.

The proposed project consists of residential uses and, therefore, is not considered by CARB as a land use with high potential to generate TAC. Additionally, as shown above, the project does not locate sensitive receptors near any such uses. As such, operation of the project would not expose sensitive receptors to substantial pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people

While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. Diesel-powered equipment operating during construction may generate odors that are evident in the immediately surrounding area. These activities would be intermittent and temporary in duration and, therefore, would not result in nuisance odors. Residential cooking may generate odors during project operation, but these would be minor and consistent with surrounding residential land uses. Accordingly, the proposed project would not result in a significant impact related to odors that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

References Cited

Printed References

California Air Resources Board. 2005. *Air Quality and Land Use Handbook.*

California Air Resources Board. 2016a. iADAM: Air Quality Data Statistics. Available: http://www.arb.ca.gov/adam/topfour/topfourdisplay.php. Accessed: December 18, 2018.

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Personal Communications

Saschin, Alex. (A) Air Quality Engineer. Northern Sonoma County Air Pollution Control District. Healdsburg, CA. December 3, 2015—email message to Laura Yoon, ICF International.

Saschin, Alex. (B) Air Quality Engineer. Northern Sonoma County Air Pollution Control District. Healdsburg, CA. December 4, 2015—telephone conversation with Laura Yoon, ICF International.

IV. Biological Resources	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Background

Biological Resources Setting

The biological information in this section is based on a review of existing information and a reconnaissance-level site visit conducted by an ICF biologist on November 18, 2015. The site visit consisted of a habitat-based site assessment conducted by walking the entire project site and a 250-foot buffer around the site. A list of plant and wildlife species observed during the site visit was compiled and remains on file at ICF.

The sources listed below were used to develop lists of special-status species and identify other sensitive biological resources that could be affected by the proposed project.

- A California Natural Diversity Database (CNDDB) query for records in the Geyserville, Jimtown, Healdsburg, and Guerneville U.S. Geological Survey (USFS) 7.5-minute quadrangles (California Department of Fish and Wildlife [CDFW] 2015).
- A U.S. Fish and Wildlife Service (USFWS) list of endangered, threatened, and proposed species for Sonoma County (U.S. Fish and Wildlife Service 2015).
- A list from the California Native Plant Society's (CNPS's) 2015 online Inventory of Rare and Endangered Plants for Sonoma County (California Native Plant Society 2015).
- California Department of Fish and Game's 2010 List of Special Vascular Plants, Bryophytes, and Lichens.

Existing Conditions

The proposed project area is approximately 2 miles north of downtown Healdsburg, Sonoma County, on the south side of Parkland Farms Boulevard. For the purposes of this Subsequent Initial Study/Mitigated Negative Declaration, the study area for biological resources consists of the proposed 11.4-acre project site and an additional 250-foot buffer around the project limits to assess potential indirect effects on sensitive biological resources. Existing biological communities found in the study area are Coast Live Oak Woodland, Mixed Evergreen Forest, Annual Grassland, Riparian Woodland, Serpentine Chaparral, and Intermittent Streams. Biological communities and their associated vegetation and wildlife species are described in Chapter 13 of the Specific Plan Area A Draft EIR (City of Healdsburg 1994).

Special-Status Species

A review of existing information resulted in the identification of special-status plant species and special-status wildlife species with the potential to occur in the study area (Tables 1 and 2 in Appendix C). No federally-listed or state-listed species were reported within or adjacent to the study area by CNDDB, CNPS, or USFWS.

Discussion

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The study area supports riparian and coast live oak woodland, and mixed evergreen forest, which include many large trees that could provide nesting habitat for birds and raptors, including the fully protected white-tailed kite. The project's key impact mechanisms are road installation and improvements, and construction within the designated building envelopes identified in the subdivision tentative map (see tentative map page C3.0). The building envelopes illustrate that development of the eastern portion of the site will occur on a limited area. In addition, Lots 7 through 11 include Habitat Preservation Areas that further reduce impacts. The Specific Plan Area A EIR requires that the removal of oak woodlands and heritage trees will be minimized. The project

would include the removal of up to 142 trees across the entire site. This includes five heritage trees within building envelopes and road/utility corridors (two of the heritage trees would be removed due to poor health; three would be removed by the project). The tree species to be removed would consist primarily of coast live oak (*Quercus agrifolia*), but also include black oak (*Quercus velutina*), valley oak (*Quercus lobate*), madrone (*Arbutus menziesii*), Douglas fir (*Pseudotsuga menziesii*), Monterey pine (*Pinus radiate*), and bay laurel (*Laurel nobilis*). Of the trees to be removed across the site, 120are 20 feet in height or taller. Of these, excluding trees removed for health and fire safety purposes, 49 are directly attributable to site construction within building envelopes and road/utility corridors.

The Specific Plan Area A EIR requires that any trees taller than 20 feet that are removed will be replaced at a 3:1 ratio. This would be 360 replacement trees for this project. However, replacement is not viable on this site due to a lack of suitable planting areas. Instead, the City has required the developer to prepare a Vegetation Management and Enhancement Plan (VMEP) that specifies mandatory protections for remaining trees during construction and maintenance during the life of the Project. (See Appendix B). The VMEP also includes provisions to limit wildfire risk through maintenance of defensible space.

If project construction occurs during the breeding season (generally February 15 through August 30), tree trimming and removal, increased noise, and ground disturbance from large equipment could result in the removal of active nests, abandonment of an active nest, or forced fledging of young. Implementation of Mitigation Measure BIO-1: Conduct Environmental Awareness Training for Construction Personnel, Mitigation Measure BIO-2: Install Construction Barrier Fencing to Protect Environmentally Sensitive Areas, and Mitigation Measure BIO-3: Retain a Biologist to Monitor Construction Activities, in addition to Specific Plan Area A Mitigation Measures 13.7 (Conduct Surveys for Active Raptor Nests Prior to Development) and 13.8 (Conduct Special-Status Wildlife Species Surveys Prior to Development), would reduce potential impacts on nesting birds and raptors and their nests to a less-than-significant impact.

The project area also provides potential habitat for special-status wildlife species including roosting habitat for bats and potential denning habitat for ringtail. The incorporation of Mitigation Measures BIO-1 through BIO-3 and Specific Plan Area Mitigation Measure 13.8 (Conduct Special-Status Wildlife Species Surveys Prior to Development) would reduce potential impacts on special-status species and their habitats to a less-than-significant level. With these mitigation measures, the project would not have a more severe impact than disclosed in the Specific Plan Area A EIR.

Mitigation Measure AES-1: Implement the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*. (Described above.)

Mitigation Measure BIO-1: Conduct Environmental Awareness Training for Construction Personnel

Before any work occurs in the project area, including vegetation removal and grading, a qualified biologist will conduct mandatory contractor/worker awareness training for construction personnel. The awareness training will be provided to all construction personnel to brief them on the need to avoid impacts on sensitive biological resources and the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the project, the contractor will ensure that the personnel receive the mandatory training from

the biologist before starting work. The City will review the credentials and approve the qualified biologist.

Mitigation Measure BIO-2: Install Construction Barrier Fencing to Protect Environmentally Sensitive Areas

The City will retain the services of a qualified biologist, at the applicant's expense, who will identify environmentally sensitive areas (ESAs) as follows. ESAs in and adjacent to the construction area include the serpentine chaparral in the eastern portion of the project area, the riparian woodland along the drainage just west of Canyon Run Road, heritage trees (greater than 30 inches diameter at breast height [dbh]), and any trees that support migratory bird or raptor nests, roosting bats, or denning ringtail, or other special-status species. The biologist will direct the construction contractor to install orange construction barrier fencing around the ESAs. No construction activities will be allowed within the orange construction area fencing.

The fencing around the ESAs will be installed prior to the start of construction. The city will require the construction contractor to maintain this fencing in good condition during construction. The construction contractor will be responsible for removing the fencing in good order at the end of construction. The fencing will be commercial quality woven polypropylene, orange in color, and at least 4 feet high (Tensor Polygrid or equivalent).

Mitigation Measure BIO-3: Retain a Biologist to Monitor Construction Activities

The biologist retained by the City will make a weekly monitoring visit to the project site. This biological monitor will assist the construction crew, as needed, to comply with all project implementation restrictions and guidelines. Furthermore, the biological monitor will be responsible for ensuring that the contractor maintains the ESA barrier fencing. As provided in Public Resources Code Section 21089, the City will collect fees from the developer sufficient to pay the cost of the biologist.

Mitigation Measure BIO-4: Vegetation Management and Enhancement Plan Implementation

The applicant shall record with the approved final map of the subdivision covenants, conditions, and restrictions (CC&Rs) requiring compliance with the Vegetation Management and Enhancement Plan. The CC&Rs shall be subject to City review and approval as part of its review of the subdivision final map. The CC&Rs shall provide for continuous compliance with the requirements of the Vegetation Management and Enhancement Plan by successive property owners.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The sensitive natural communities in the study area consist of riparian woodland and serpentine chaparral at the east end of the study area. Pursuant to the proposed subdivision tentative map, development of the site will be limited to delineated building envelopes and road/utility corridors. No loss of these sensitive natural communities would occur as a result of project construction, and implementation of Specific Plan Area A Mitigation Measures 13.2 (Avoid Loss of Riparian Woodlands or Provide Adequate Mitigation) and 13.4 (Avoid Development of the Serpentine Chaparral Area)

would reduce potential impacts on riparian woodland and serpentine chaparral to a less-than-significant level. In addition, the Specific Plan Area A EIR includes a requirement that heritage trees and native oaks will be protected from construction and landscape impacts by fencing the root zone (defined as 1.5 times the radius between the trunk and drip line) of preserved trees and keeping all grading and construction activity outside of the root zone. The project, as mitigated, would not result in an environmental effect that is substantially more severe than the impact identified in the Specific Plan Area A EIR.

Mitigation Measure AES-1: Implement the *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*. (Described above.)

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

There is an unnamed drainage in the study area to the west of Canyon Run Road. Construction of the proposed project would not result in the placement of fill or runoff of construction material into the drainage, based on the locations of road and building envelope improvements shown on the subdivision tentative map. Stormwater will retained onsite per the requirements of the Stormwater Low Impact Development Submittal (see Appendix F of this subsequent mitigated negative declaration). Implementation of Mitigation Measures BIO-1 through BIO-3, described above, would reduce potential indirect effects on the drainage to a less-than-significant level. The project would not result in an environmental effect that is substantially more severe than the impact identified in the Specific Plan Area A EIR and no additional mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Mature trees and grasslands in the study area could provide food, migration, and dispersal corridors, as well as escape, nesting, and thermal cover for many common resident and migratory wildlife species that are adapted to urban settings. Resident mammal species that could occur in the study area include raccoon (*Procyon lotor*), western gray squirrel (*Sciurus griseus*) and several species of bats in addition to large ranging mammals such as mule deer (*Odocoileus hemionus*), grey fox (*Urocyon cinereoargenteus*), and coyote (*Canis latrans*). Reptiles that could occur within the vicinity of the unnamed drainage west of Canyon Run Road include Pacific pond turtle (*Actinemys marmorata*) and common garter snake (*Thamnophis sirtalis*). Numerous species of birds and raptors occur within these habitats either as resident breeders or during foraging and migration. The project site is bordered primarily by residential development and, therefore, is not likely to be a major corridor for wildlife species in the area. Construction of the 11 single-family residential properties within the project site could hinder wildlife movements, but would not create a permanent barrier to wildlife movements. Therefore, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The project would not result in an environmental effect that is substantially more severe than the impact identified in the Specific Plan Area A EIR.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Chapter 7 (Natural Resources) of the *Healdsburg 2030 General Plan* includes goals, policies, and implementation measures to protect wildlife resources including the protection of heritage trees and the enforcement of riparian setback requirements. In addition, Chapter 20.24 of the Healdsburg Municipal Code includes regulations controlling the removal of heritage trees within the City of Healdsburg. A heritage tree is defined in the Healdsburg Municipal Code as a tree equal to or greater than 30 inches dbh measured 2 feet above the level ground or any tree or group of trees identified by City Council resolution upon a finding that the tree or group of trees is of historic value, is a significant feature of a landmark, historic site, or historic district, or is representative of a significant period of the City's growth or development. The building envelopes and road/utility corridors contain 20 heritage trees, of which five would be removed for the project.

Section 11.4.2, Ridgelands, of the City of Healdsburg Area A Specific Plan provides: "Structures shall be designed and located, and grading and other construction activities shall be performed so that no trees over 20 feet tall are removed or disturbed. If removal or disturbance of such trees is found to be necessary, replacement is required, using tree species native to the local area with minimum height and spread of 12 and 8 feet, respectively, at a minimum replacement ratio of 3:1." The project site contains 712 trees in excess of 20 feet in height, of which 120 would be removed for the project. There are 20 heritage trees on the site, five of which would be removed for the project.

The proposed project does not conflict with the natural resources section of the General Plan nor the Healdsburg Municipal Code, as riparian setbacks will be enforced and, although heritage trees will be removed and replacement will not meet the Area A Specific Plan replacement ratio, the tree loss will be compensated for to the satisfaction of the City through implementation of the VMEP pursuant to Mitigation Measure AES-1, and Mitigation Measure AES-2: Minimize Night Light and Glare. Therefore, there would be no impact created by the proposed project. The project would not result in an environmental effect that is substantially more severe than the impact identified in the Specific Plan Area A EIR.

f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no approved habitat conservation plans or natural community conservation plans that apply to the proposed project.

References Cited

California Department of Fish and Wildlife 2015. Species List. Quad Name: Healdsburg.

California Native Plant Society, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 04 December 2015].

City of Healdsburg. 1994. Specific Plan Area A Final Environmental Impact Report.

McNair Landscape Architecture. 2018. Parkland Farms Unit 11 Vegetation Management and Enhancement Plan. September.

U.S. Fish and Wildlife Service. 2015. Species List. Quad Name: Healdsburg

V. Cultural Resources	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

A cultural resources evaluation was prepared for the project site in 2016 (Roop 2016). (See Appendix D). Of the five historical features identified on the site in the Specific Plan Area A EIR, only two remain. The 2016 site survey identified the rock wall (CA-SON-1765H) and residence site (CA-SON-1766H) listed in the cultural resources study for the Specific Plan Area A EIR. The rock wall was found to be in good condition. The early 20th, late 19th Century residence and associated structures no longer exists on the site. The 2016 site survey also identified four other resources of historic age that had not previously been recorded: a pump house and well, a tank house, a small rock quarry, and an orchard.

The 2016 evaluation concluded that the rock wall remains eligible for listing on the California Register of Historic Resources, but the residence lacks integrity and is not eligible for listing. None of the four other resources identified in the 2016 survey are eligible for listing as significant historic resources. The 2016 evaluation indicates that conditions have not substantially changed since certification of the Specific Plan Area A EIR.

The 2016 evaluation recommends that the rock wall be preserved in place and protected during the development phase of the project to avoid damage from construction equipment and vibration. The Specific Plan Area A EIR includes Mitigation Measure 14.3 (Avoid Impacts on CA-Son-1765H), which requires that "construction be designed to avoid impacts on the rock wall alignment." Mitigation Measure Cul-1, described below, expands upon that mitigation in light of the recommendations of the 2016 evaluation.

The project would not result in any new or substantially more severe impact. The new mitigation measure clarifies Measure 14.3.

The City offered affected tribes the opportunity to consult in 2016, but no tribes requested consultation.

Mitigation Measure Cul-1. Preserve in place the historic rock wall

The stacked stone wall (CA-Son-1765H) shall be preserved in place. The wall is to be protected during the development phase of the project by placing exclusion fencing between the wall and any active excavation, grading, trenching, or other construction work. If any work is undertaken that will involve intense vibration, such as a vibrating compacting machine, the wall segments close enough to the equipment to be impacted by the vibration are to be protected from damage by placing bracing along both sides of the wall.

Potentially, below ground utility lines might cross the wall alignment to connect to existing lines. If this is necessary, the crossing should be at a location where the wall is either not present or it is only one rock high. Once the utility crossing is complete, any removed rocks are to be re-placed properly exactly as when they were removed. If needed, a stone mason will be required to restore the wall section.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Although no evidence of archaeological resources was found during the 2016 survey (Roop 2016), there is always the potential of inadvertent discovery of archaeological materials during ground-disturbing activities. The Specific Plan Area A EIR includes Mitigation Measure 14.5 (Stop Work if Cultural Resources are Discovered During Construction). Because there is no new evidence of archaeological resources, this measure adequately avoids the potential impact.

c) Disturb any human remains, including those interred outside of formal cemeteries?

No evidence of human remains was found either in the study done for the Specific Plan Area A EIR and the 2016 cultural resources study. The project will not result in any new or more severe impacts than disclosed in the Specific Plan Area A EIR.

References Cited

Roop, William. 2016. *A Revised Cultural Resources Evaluation of 120 Parklands Boulevard, Healdsburg, Sonoma County, California*. September 5.

VI. Energy	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

a. The project would implement development previously approved under the Specific Plan for Area A. Since approval of the Specific Plan in 1994, California has continuously tightened its regulations on energy use. Conservation efforts include not only Title 24 building code standards and the Title 20 appliance efficiency program for energy conservation in buildings, which are tightened tri-annually, but also state requirements for local water efficient landscape ordinances, general conservation by water providers (e.g., Water Conservation Act of 2009 requiring a 20% reduction in per capita urban water use by 2020), and the mandate for energy providers to increase their reliance on renewable energy embodied in the Renewables Portfolio Standard. As a result, the proposed project will be more energy efficient than the development contemplated in the Specific Plan Area A EIR. It will not result in a new or substantially more severe impact.

b) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation

The project will comply with all state and local energy conservation standards. It will not conflict with or obstruct any state or local energy conservation plan.

VII. Geology and Soils	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
2. Strong seismic ground shaking?	☐	☐	☐	☒
3. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
4. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Background

The analysis for geology, seismic, and soils relies on the preliminary geotechnical report and fault study prepared for the project regarding site-specific soils, geology, and seismic information (RGH Consultants 2015a, 2015b). In addition, the California Geological Survey's website, including the Information Warehouse, was searched for the project area.

The preliminary geotechnical report did not identify any unsurmountable constraints that would preclude development of the site. A final geotechnical report will be submitted prior to development that will contain specific recommendations for the avoidance of geologic hazards and risk to dwellings.

The analysis for paleontological resources was based on review of the University of California Berkeley Museum of Paleontology (UCMP) database (2015a-d), geologic descriptions provided in the preliminary geotechnical report (RGH Consultants 2015a), and professional judgement. Professional standards of practice adopted by the Society of Vertebrate Paleontology (SVP) (2010) offer guidance for control and mitigation of adverse impacts on paleontological resources. Paleontological sensitivity is a qualitative assessment that takes into account the paleontological potential of the stratigraphic units present, the local geology and geomorphology, and any other local factors that may be germane to fossil preservation and potential yield. According to the SVP, an area is considered to have a high potential (sensitivity) to contain fossils if it is a unit from which "vertebrate or significant invertebrate, plant, or trace fossils have been recovered." Paleontological resources are considered to be older than middle Holocene (i.e., older than approximately 5,000 years) (Society of Vertebrate Paleontology 2010).

The site is in a moderately steep to steeply sloping area in the Coast Ranges geomorphic province and is underlain by five geologic units (RGH Consultants 2015a). These units are summarized in Table 5.

Table 5. Geologic Units within the Project Area

Lot	Immediately Underlying Geologic Formation	Age	Description
1 through 5 and western portion of 6	Glen Ellen	Early Pleistocene to Pliocene	Light brown to yellow brown weakly consolidated gravel, sand, silt, clay and reworked tuff
Eastern portion of 6 and most of 7 and 8	Andesite, basaltic andesite, and basalt members of the Sonoma Volcanics Group	Pliocene to Miocene	Dark gray to dark brownish gray flows and flow breccias with intercalated tuff and tuff breccia
East facing slope of Lot 9 through the western portion of Lot 11	Mudstone, shale and sandstone of the Great Valley Sequence	Early Cretaceous and Late Jurassic	Dark gray to black marine mudstone and shale, with occasional thin interbeds and thicker intervals of greenish gray sandstone and sporadic concretionary carbonate beds
Southern portion of 9 and 10	Alluvium	Holocene	Poorly to moderately sorted sand, silt and gravel
Eastern portion 11	Serpentinite	Late and Middle Jurassic	Highly sheared, variably serpentinized ultramafic rock

Source: RGH Consultants 2015a.

The project area is in a seismically active area and underlain by some unstable geologic units. The geotechnical constraints map of the specific plan indicate that portions of the project area are located in the High Constraints (Figure 3D in the specific plan). These hazards were addressed in the Specific Plan Area A EIR and are described below.

Three fault traces have been identified as crossing the project area. The fault study prepared for the project determined that one of those faults is an active fault (i.e., shows evidence of movement in the last 11,000 years). This fault is a trace of the Healdsburg Fault zone that crosses Lot 10 in a north-south direction along the incised drainage approximately 120 feet northeast of the building envelope for Lot 10 and 140 feet southwest of the building envelope for Lot 11 (RGH Consultants 2015b).

There is potential for strong ground shaking in the project area. Based on the California Geological Survey (CGS) strong ground motion interpolator, which depicts the peak horizontal ground acceleration values exceeded at a 10 percent probability in 50 years (California Geological Survey 2008), the probabilistic peak horizontal ground acceleration value in the project area is approximately 0.8g (where g equals the acceleration of gravity). As a point of comparison, probabilistic peak horizontal ground acceleration values for the San Francisco Bay Area range from 0.4g to more than 0.8g. The acceleration value for the project area indicates a moderate ground-shaking hazard.

There is potential for landsliding in portions of the project area. An active translational landslide (i.e., a landslide that moves along a planar or undulatory surface) that appears to be 5 to 20 feet deep is on the northern end of Lots 4 and 5 (RGH Consultants 2015a).

The project area is underlain by weak and porous and possibly expansive soils to a depth of 1 to 2 feet (RGH Consultants 2015a).

The paleontological sensitivity of the geologic units immediately underlying the project area is shown in Table 6.

Table 6. Paleontological Sensitivity of Geologic Units in the Project Area

Lot	Immediately Underlying Geologic Formation	Age	Paleontological Sensitivity
1 through 5 and western portion of 6	Glen Ellen	Early Pleistocene to Pliocene	High. UCMP (2015a) has one record of horse teeth found in this unit in California. In addition, California's Pleistocene sedimentary units are typically considered highly sensitive for paleontological resources because of the large number of recorded fossil finds in such units throughout the state.
Eastern portion of 6 and most of 7 and 8	Andesite, basaltic andesite, and basalt members of the Sonoma Volcanics Group	Pliocene to Miocene	Low. Although UCMP (2015b) has 33 records of fossils from the Sonoma Volcanics Group geologic unit, which is well known for its fossils, these are generally found in ash flow tuffs of the group. In contrast, geologic members found in the project area would not be expected to contain fossils.
East facing slope of Lot 9 through the western portion of Lot 11	Mudstone, shale and sandstone of the Great Valley Sequence	Early Cretaceous and Late Jurassic	High. Although there are no records in the UCMP (2015c) for the sequence, formations within it likely contain marine fossils.
Southern portion of 9 and 10	Alluvium	Holocene	Unknown but likely low. Not enough information is available to determine the age of the unit and potential to contain fossils. UCMP (2015d) does, however, contain one record of a Holocene fossil found in the county.
Eastern portion 11	Serpentinite	Late and Middle Jurassic	None. This type rock type does not have the potential to contain fossils.

Discussion

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

An active trace of the Healdsburg fault zone occurs approximately 120 feet northeast of the building envelope for Lot 10 and 140 feet southwest of the building envelope for Lot 11. Construction on or near an active fault trace could result in collapse of structures during an earthquake. The Alquist-Priolo Act prohibits construction within 50 feet of an active fault trace. The preliminary geotechnical

report prepared for the project found no active fault traces within 50 feet of the building envelopes of any lot (RGH Consultants 2015a). (See Appendix E) This impact would be less than significant. No mitigation is required.

2. Strong seismic ground shaking?

The risk of strong seismic ground shaking is relatively high and portions of the project are in the High Constraints Areas of the specific plan geotechnical constraints map (Figure 3D in the specific plan). If not constructed to appropriate standards, structures built in the project area could collapse during an earthquake. Compliance with the appropriate building regulations, including the California Building Standards Code (CBSC), will ensure that earthquake design and construction measures are implemented. In addition, implementation of Specific Plan Area A EIR Mitigation Measure 11.2 (Require Site-Specific Geologic Reports Prior to Development), will be required. Development will be required to follow the recommendations of the final geologic reports. There would be no more severe impact than that identified in the Specific Plan Area A EIR.

3. Seismic-related ground failure, including liquefaction?

Liquefaction was not identified as an issue of concern in the preliminary geotechnical report prepared for the project area. Site-specific geotechnical investigation in compliance with CBSC standards and Mitigation Measure 11.2 (Require Site-Specific Geologic Reports Prior to Development), would be required. The project will comply with the CBSC to ensure that earthquake design and construction measures are implemented. There would be no more severe impact than that identified in the Specific Plan Area A EIR.

4. Landslides?

An active landslide is present in the project area and portions of the project are located in the High Constraints Areas of the specific plan geotechnical constraints map (Figure 3D in the specific plan). Construction on or near an active landslide could result in collapse of structures. Compliance with CBSC standards and implementation of Mitigation Measure 11.2 (Require Site-Specific Geologic Reports Prior to Development) and Mitigation Measure Geo-1 would reduce this impact to a less-than-significant level. Potential design treatments recommended in the preliminary geotechnical report prepared for this project that would be further analyzed in the site-specific geotechnical report would include spread footings for foundation support or a deep foundation system, which would consist of deep spread footings and/or reinforced grade beams supported on piers (RGH Consultants 2015a). On sloping terrain the spread footings and the piers and grade beams would be interconnected as a rigid grid and reinforced to resist lateral loads. These foundation systems need to be supported by bedrock or engineered fill keyed into bedrock.

The project's preliminary geotechnical report (see Appendix E of this subsequent mitigated negative declaration) recommends a 50-foot setback from the active landslide for any building. This would avoid loading the slide and inducing further earth movement.

Mitigation Measure Geo-1. Establish 50-foot setback from the landslide and steep slopes and repair landslide

As described in the preliminary geotechnical report, the City will require the developer to implement one of the following two options:

(1) revise the subdivision tentative map to establish a 50-foot building setback from the landslide identified in the geotechnical report, or

(2) repair the landslide to eliminate the potential for future earth movement, as recommended in the project-specific geotechnical report..

In addition, the developer shall revise the subdivision tentative map as necessary in order to establish building and road setbacks of at least 50-feet from slopes steeper than 2:1 horizontal-to-vertical ratio in the area.

b) Result in substantial soil erosion or the loss of topsoil?

Ground-disturbing earthwork associated with construction at the project site may increase soil erosion rates and/or loss of topsoil. The proposed shared driveway will traverse the northern side of the ridge, below the ridgeline. With building pads and the driveway, project grading would involve an estimated 1,500 cubic yards of cut material and 90 cubic yards of fill. This impact could be significant; however, compliance with the erosion-related regulations applicable to the project and implementation of Specific Plan Area A EIR Mitigation Measure 11.3 (Prepare and Implement a Grading, Erosion, and Sediment Control Plan) will ensure that the construction activities do not result in significant erosion. There would be no more severe impact than that identified in the Specific Plan Area A EIR.

c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

An active landslide is present in the project area, as described in discussion 4. Lateral spreading, subsidence, and liquefaction were not identified as issues of concern in the preliminary geotechnical report prepared for the project area. Weak and porous soils that could be susceptible to collapse occur in the project area. Site-specific geotechnical investigation in compliance with CBSC standards and Mitigation Measure 11.2 (Require Site-Specific Geologic Reports Prior to Development), will be required. The project would comply with the CBSC to ensure that earthquake design and construction measures are implemented. There would be no more severe impact than that identified in the Specific Plan Area A EIR.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils could occur in the project area. Site-specific geotechnical investigation in compliance with CBSC standards and Mitigation Measure 11.2 (Require Site-Specific Geologic Reports Prior to Development) will be required. The project would comply with the site-specific design and construction methods and the building code to ensure that damage related to expansive soils does not occur. There would be no more severe impact than that identified in the Specific Plan Area A EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

No septic system is proposed. There would be no impact.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Any fossils present in the project area could be damaged by earth-disturbing activities (i.e., excavation and grading) more than 3 feet deep during construction. The Glen Ellen Formation, Sonoma Volcanics, and Great Valley Sequence have high sensitivity for paleontological resources and therefore fossils could be present. Substantial damage to or destruction of significant paleontological resources as defined by the SVP (2010) would be a significant impact. Implementation of Mitigation Measures GEO-1 and GEO-2 would reduce this impact to a less-than-significant level. Therefore, there would be no new impact relative to those identified in the Specific Plan Area A EIR.

Mitigation Measure GEO-1: Educate Construction Personnel in Recognizing Fossil Material

The City will ensure that all construction personnel receive training provided by a qualified professional paleontologist, approved by the City, experienced in teaching non-specialists to ensure that they can recognize fossil materials in the event any are discovered during construction.

Mitigation Measure GEO-2: Stop Work if Substantial Fossil Remains Are Encountered during Construction

If substantial fossil remains (particularly vertebrate remains) are discovered during earth disturbing activities, activities will stop immediately until a State-registered professional geologist or qualified professional paleontologist can assess the nature and importance of the find and a qualified professional paleontologist can recommend appropriate treatment. Selection of these professionals shall be subject to City approval; pursuant to Public Resources Code Section 21089 the developer shall bear the cost of this professional. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The applicant will be responsible for ensuring that recommendations regarding treatment and reporting are implemented.

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VIII. Greenhouse Gas Emissions	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR did not include a discussion on greenhouse gases (GHG) and no mitigation measures related to GHGs were identified. Accordingly, the information and impact analysis presented herein represents new information not considered in the Specific Plan Area A EIR.

Climate change is a complex phenomenon that has the potential to alter local climatic patterns and meteorology. Increases in anthropogenic GHG emissions have been unequivocally linked to recent warming and climate shifts (Intergovernmental Panel on Climate Change 2007). Although modeling indicates that climate change will result globally and regionally, there remains uncertainty with regard to characterizing the precise *local* climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty in precise predictions, it is widely agreed that some degree of climate change is expected as a result of past and future GHG emissions.

The most common GHGs resulting from human activity are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). California Environmental Quality Act (CEQA) Guidelines also define GHGs to include perfluorinated carbons (PFCs), sulfur hexafluoride (SF_6), and hydrofluorocarbons (HFCs). Unlike criteria air pollutants, which occur locally or regionally, the long atmospheric lifetimes of these GHGs allow them to be well-mixed in the atmosphere and transported over distances. Within California, transportation is the largest source of GHG emissions (41 percent of emissions in 2016), followed by industrial sources (23 percent) (California Air Resources Board 2018).

Although no federal law is specifically related to climate change regulation or the reduction of GHGs, the EPA has adopted regulations and proposed performance standards for electric power plants under the Clean Air Act. California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. Of importance is Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, which establishes a statewide goal to reduce GHG emissions back to 1990 levels by 2020, and Senate Bill (SB) 32, which furthers the AB 32 goal, to achieve a 40 percent reduction in 1990 emissions levels by 2030. The governor has also issued several executive orders (EOs), including EO B-55-18, which expresses a goal to achieve statewide carbon neutrality by 2045. At the local level, the City of Healdsburg, alongside eight other

Sonoma County cities, prepared a communitywide climate action plan (CAP) update to reduce GHG emissions by 25 percent below 1990 levels by 2020.

As discussed in Section III, Air Quality, the NSCAPCD has primary responsibility for air quality management within Northern Sonoma County. The NSCAPCD has not adopted any rules, regulations, or evaluation policies that pertain to GHG emissions. However, the district indicates that environmental analyses can rely on methods used in the neighboring San Francisco Bay Area Air Basin, which is regulated by the Bay Area Air Quality Management District (BAAQMD) (Saschin pers. comm.). The BAAQMD's (2017) *CEQA Guidelines* outline an advisory threshold of 1,100 metric tons carbon dioxide equivalent (CO_2e) for operational emissions associated with land use development projects. The guidelines do not identify a GHG emission threshold for construction-related emissions, but they recommend that GHG emissions from construction be quantified and disclosed.

Discussion

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Construction of the proposed project would generate emissions of CO_2, CH_4, and N_2O from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Emissions from these sources were estimated using CalEEMod (version 2013.2.2). Carbon storage loss as a result of removing 142 trees from the project site was also considered in the analysis. It was conservatively assumed 100% of stored CO_2 would be released at the time of removal. The one-time loss in stored CO_2 was calculated using the U.S. Forest Service's (2011) Tree Carbon Calculator (TCC) based on the approximate tree species and size.

Estimated construction emissions are summarized in Table 7**.** It was assumed construction would begin in summer 2020.

Table 7. Estimated Greenhouse Gas Emissions from Project Construction (metric tons)

Construction Year	CO_2	CH_4	N_2O	CO_2e[a]
2020	270	0.07	<0.01	272
2021	280	0.07	<0.01	282
Total Equipment Emissions[b]	550	0.14	<0.01	553
One-Time Carbon Loss from Tree Removal	39	–	–	39
Total Construction Emissions (Equipment plus Carbon Loss)[b]	589	0.14	<0.01	592

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each GHG.

[b] Values may not add due to rounding.

As shown in Table 7, project construction would generate 592 metric tons of CO_2e. This is equivalent to adding less than 130 typical passenger vehicles per year to the road during the construction period (U.S. Environmental Protection Agency 2018). The construction emissions are primarily the

result of diesel-powered construction equipment (e.g., excavators). Because construction emissions would cease once construction is complete, they are considered short-term.

As discussed above, BAAQMD's *CEQA Guidelines* do not identify a GHG emission threshold for construction-related emissions. While not established as a construction threshold, construction emissions associated with the proposed project are below BAAQMD's 1,100 metric ton CO_2e operational threshold. Because construction emissions are temporary, as opposed to annual, comparing construction emissions to BAAQMD's operational threshold represents a conservative assessment of potential impacts.

Operation

Project operation would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, natural gas combustion, and landscaping activities. Indirect emissions would be generated by electricity consumption, waste and wastewater generation, and water use. Removal of the 142 trees would also reduce long-term emissions sinks that actively sequester atmospheric CO_2. Lost sequestration potential in terms of metric tons CO_2 per year was calculated using the U.S. Forest Service's TCC. Emissions for all other sources were estimated using CalEEMod (version 2016.3.2.).

Table 8 summarizes estimated operational emissions for the proposed project**.** It was conservatively assumed all structures would be fully occupied immediately following construction in 2020.

Table 8. Estimated Greenhouse Gas Emissions from Project Operation (metric tons per year)

Source	CO_2	CH_4	N_2O	CO_2e[a]
Mobile	138	0.01	<0.01	138
Energy (natural gas + electricity)	30	<0.01	<0.01	30
Area (landscaping activities)	15	0.01	<0.01	15
Waste Generation	2	0.15	<0.01	6
Water Use	1	0.02	<0.01	2
Total Onsite Emissions[b]	186	0.19	<0.01	191
Lost Carbon Sequestration from Tree Removal	4	–	–	4
Total Operational (Onsite plus Carbon Loss)[b]	190	0.19	<0.01	195
BAAQMD Threshold	–	–	–	*1,100*

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each GHG.

[b] Values may not add due to rounding.

As shown in Table 8, project operation would generate 195 metric tons of CO_2e per year. This amount is equivalent to adding less than 45 typical passenger vehicles per year (U.S. Environmental Protection Agency 2018) and is well below the BAAQMD's threshold of 1,100 metric tons CO_2e.

b) Conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?

AB 32 and SB 32 codify the state's 2020 and 2030 GHG emissions reduction targets. The adopted Scoping Plans for AB 32 and SB 32 outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. Some reductions would need to come in the form of

changes pertaining to vehicle emissions and mileage standards. Some would come from changes pertaining to sources of electricity and increased energy efficiency at existing facilities. The remainder would need to come from state and local plans, policies, or regulations that would lower carbon emissions, relative to business as usual conditions. As described under item VIII(a+), the project would not result in GHG emissions that exceed the BAAQMD thresholds, which are based on consistency with AB 32.

As described above, the City of Healdsburg, alongside eight other Sonoma County cities, adopted a CAP (*Climate Action 2020 and Beyond*) in 2016 (Sonoma County Regional Climate Protection Authority 2016). The majority of strategies outlined in the CAP target emissions from non-residential or existing development and, therefore, are not applicable to the proposed project. Table 5.3.5 of the CAP identifies all applicable strategies and demonstrates that the project would be consistent with the City's CAP. The measures identified in Table 5.3.5 include local, regional, and state measures, including applicable measures from the AB 32 and SB 32 scoping plans. Based on this analysis, the project is consistent with AB 32, SB 32, and the City's existing CAP. This impact would be less than significant.

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IX. Hazards and Hazardous Materials	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Discussion

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Specific Plan Area A EIR identified the project site as being within the extent of wildland high fire hazard area (City of Healdsburg 1994), but did not include a discussion on other hazards and hazardous materials. No mitigation measures related to hazards and hazardous materials were identified.

The project will utilize standard construction techniques and is not expected to involve the use of hazardous materials other than fuel and lubricants. This would not result in a significant hazard; therefore, there is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

This is a residential subdivision project. No hazardous materials will be used or stored on the site, other than typical fuels and lubricants for construction machinery and, eventually, household use by future residents. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR.

c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project site is not within 0.25 mile of an existing or proposed school. The nearest existing school is Healdsburg Elementary School, approximately 1 mile south of the project site. As noted earlier, the project will not emit hazardous materials or involve the handling of hazardous materials or wastes. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR.

d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The project site is not included on a list of hazardous materials sites and would not create a significant hazard to the public or to the environment (California Environmental Protection Agency 2015). The proposed residential project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR.

e) Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?

While a portion of the project site is within 2 miles of the Healdsburg Municipal Airport, it is not within the airport land use plan referral area boundary or within the vicinity of a private airstrip (County of Sonoma 2015). Therefore, the project would not result in a safety hazard for people residing or working in the project area. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed residential project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (City of Healdsburg 2015). The proposed subdivision will be designed to meet the requirements of the Healdsburg Fire Department for access and will meet current standards for fire flow (Adobe Associates, Inc. 2018). Therefore, the proposed project would not result in a significant project-specific impact related to emergency response or evacuation that were not identified in the Specific Plan Area A EIR. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

References Cited

Adobe Associates, Inc. 2018. *Fire Flow Study for the Parkland Farms Subdivision*. September 14.

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X. Hydrology and Water Quality	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
that would result in substantial erosion or siltation onsite or offsite?				
i. Result in substantial erosion or siltation on- or off-site	☐	☐	☐	☒
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv. Impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv. Impede or redirect flood flows?

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

While the Specific Plan A EIR identified that development within the plan area would not be subject to flooding, stormwater generated from development in the plan area could exacerbate downstream flooding problems in Foss Creek, particularly areas near Healdsburg. The Specific Plan Area A EIR concluded that the specific plan would result in a significant impact related to surface water quality. Grading and foundation construction activities associated with development within the Specific Plan A area would remove native vegetation and expose soils to erosion during winter. Eroded soils in construction areas would be transported through the urban drainage system during storm events to Foss Creek. Implementation of Specific Plan Area A EIR Mitigation Measure 11.3 (Prepare and Implement a Grading, Erosion, and Sediment Control Plan) would reduce the impact to a less-than-significant level. In addition, the Specific Plan Area A EIR concluded that development in Area A would introduce multiple land uses with the potential for generating urban pollutants that could wash into Foss Creek and result in a significant impact. The Specific Plan Area A EIR determined that Mitigation Measure 12.2 (Incorporate Best Management Practices into Drainage Designs) would reduce this impact to a less-than-significant level.

The proposed project would construct 11 residential units on an 11.4-acre site in the northern portion of the city. According to the proposed project's initial stormwater low-impact development report, runoff from the project site would be concentrated and treated on site. (Adobe Associates, Inc. 2018). The proposed project will include designated vegetated buffer strips to provide treatment and infiltration trenches at various pipe outfalls to provide required retention. Natural vegetation on the project site will also provide additional treatment from runoff generated by the

proposed project. Therefore, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The project would also not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site.

As the proposed project is within the development projected under the Specific Plan Area A, there would be no new impacts on hydrology and water quality beyond those analyzed in the Specific Plan Area A EIR. Implementation of Specific Plan Area A Mitigation Measures 11.3 (Prepare and Implement a Grading, Erosion, and Sediment Control Plan) and 12.2 (Incorporate Best Management Practices into Drainage Designs) from the Specific Plan Area A EIR would reduce these impacts to a less-than significant-level. No additional mitigation measures are necessary.

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Adobe Associates, Inc. 2018. *Initial Storm Water Low-Impact Development Submittal for Parkland Farms Subdivision, Phase 11*. March 8.

XI. Land Use and Planning	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR concluded that the implementation of the specific plan would result in a less-than-significant impact on land use due to the conversion of predominately open space to development. Impacts to agricultural land uses are addressed above in Agricultural and Forestry Resources. No mitigation measures were required.

Discussion

Would the project:

a) Physically divide an established community?

and

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

and

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

The proposed project is adjoined by existing residential development, and would not include any road or other physical structure that would divide an established community.

The project would require some tree removal during construction and would contribute to the to the less-than-significant impact related to the loss of open space that was identified in the Specific Area Plan A EIR. The loss of up to 11.4 acres of open space would not contribute considerably to this impact or result in more severe significant impact. Furthermore, the proposed project is compliant with all applicable requirements of the Land Use Code and is consistent with the *Healdsburg 2030 General Plan*.

The proposed project would not result in a significant project-specific or cumulative impact related to land use and planning that were not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

There are no Habitat Conservation Plan or Natural Community Conservation Plan that apply to the site. The project would therefore have no impact.

XII. Mineral Resources	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR did not include a discussion on mineral resources and no mitigation measures related to mineral resources were identified.

Discussion

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

and

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

A state-designated Mineral Resource Zone (MRZ) is located in the southeastern portion of the city along the banks of the Russian River (City of Healdsburg 2010; California Department of Conservation 2013) where commercial aggregate resources are found. The proposed project would construct 11 residential units on the 11.4-acre project site in the northern portion of the city. No mines or mineral resource zones are located on or adjacent to the project site. The proposed project would not result in a significant project-specific or cumulative impact related to mineral resources. No additional mitigation measures are necessary.

References Cited

California Department of Conservation. 2013. Special Report 205 Update of Mineral Land Classification: Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin, and Southwestern Solano Counties, California.

City of Healdsburg. 2010. *Healdsburg 2030 General Plan Background Report*. As amended January 4, 2010.

XIII. Noise	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☐	☒
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

Would the project:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

and

b) Generation of excessive groundborne vibration or groundborne noise levels?

The Specific Plan Area A EIR identified potential conflicts related to residents and other noise sensitive uses in proximity to construction and traffic noise. Impacts from construction noise were considered to be significant and impacts from traffic noise were considered to be less than significant. Implementation of Specific Plan Area A Mitigation Measure 10.1 (Employ Noise Reducing Construction Practices) was found to reduce the construction noise impact to a less-than-significant level. The project would implement the development analyzed in the Specific Plan Area A EIR. Therefore, it is no more intensive a noise source than analyzed at that time. No new or substantially more severe impacts would result relative to the impacts analyzed in the Specific Plan Area A EIR.

Since the adoption of the Specific Plan Area A EIR in 1994, the City of Healdsburg has updated its General Plan and has adopted a noise ordinance (City of Healdsburg 1994). According to the *Healdsburg 2030 General Plan*, the main existing sources of noise affecting these noise sensitive land uses include traffic (particularly along U.S. 101 and arterials such as Healdsburg Avenue); the railroad (when it is operating); certain downtown uses that collectively or intermittently create a

higher than average sound level; and various industrial uses. Noise associated with operations at Healdsburg Municipal Airport does not exceed the land use compatibility standards included in the General Plan (City of Healdsburg 2010). In addition, the City of Healdsburg's Municipal Code Ordinance 1011 further limits daytime exterior sound levels to 60 dBA L_{dn} and nighttime exterior sound levels to 55 dBA L_{dn} (City of Healdsburg 2015b).

Residential uses are not considered noise-generating uses. The proposed project would result in a temporary increase in noise levels during construction, but the proposed project would be required to adhere to Ordinance 1011 which regulates construction noise. Therefore, the proposed project would not expose persons to or generate noise levels in excess of adopted standards.

The proposed project would not result in a significant project-specific or cumulative impact related to noise that were not identified in the Specific Plan Area A EIR. Implementation of Specific Plan Area A Mitigation Measure 10.1 (Employ Noise Reducing Construction Practices) in conjunction with Ordinance 101 will avoid any substantial increase in the severity of the noise impact identified in the Specific Plan Area A EIR. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

c) For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?

The proposed project would construct 11 residential units on an 11.4-acre project site that is adjacent to residential development. Healdsburg Avenue, a major arterial, is approximately 0.1 mile west of the project site. The portion of the project site is within 2 miles of the Healdsburg Municipal Airport but is not located within the airport land use plan referral area boundary (County of Sonoma 2015). No private airstrips are located in the vicinity of the project site. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

References Cited

County of Sonoma. 2015. Comprehensive Airport Land Use Plan for Sonoma County. Available: http://www.sonoma-county.org/prmd/docs/airport/ch8-excerpt.htm#822. Accessed: October 28, 2015.

City of Healdsburg. 1994. Specific Plan Area A Final Environmental Impact Report.

City of Healdsburg. 2010. *Healdsburg 2030 General Plan Background Report*. Adopted July 6, 2009. As amended through January 4, 2010.

City of Healdsburg. 2015. Healdsburg Municipal Code – Chapter 9.32. Available: http://www.codepublishing.com/ca/healdsburg/html/Healdsburg09/Healdsburg0932.html. Accessed: October 20, 2015.

XIV. Population and Housing	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR concluded that while the implementation of the Specific Plan would result in an increase of approximately 600 housing units and 1,374 residents in the plan area, it would not result in significant adverse physical effects on the environment. No mitigation measures were required.

Discussion

Would the project:

a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

There are no existing housing units or residents on the project site. The proposed project would construct 11 residential units on and extend roads and other infrastructure into the 11.4-acre project site. The 11 residential units would result in an increase of approximately 26 - 32 residents (City of Healdsburg 2015). This would include an affordable residential unit, per the City's inclusionary zoning ordinance. The anticipated housing units and population increase is within the development projected under the Specific Plan Area A. The proposed project would not result in a significant project-specific or cumulative impact related to population and housing that were not identified in the Specific Plan Area A EIR.

b) Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?

and

c) Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

No existing housing units are at the project site. The project would not result in a net loss of housing, nor would it necessitate the construction of replacement housing.

References Cited

City of Healdsburg. 2015. Healdsburg Housing Element 2015-2023. Adopted November 17, 2014. Certified January 8, 2015.

XV. Public Services	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR concluded that an increase in approximately 600 units in the plan area would increase demand for structural and wildland fire protection and emergency services, increase student enrollment at local schools, increase demand for park and recreational facilities, and result in significant impacts. The EIR concluded that implementation of Specific Plan Area A Mitigation Measures 7.5 (Ensure that Buildings are Fire Safe and Fuel Breaks are Provided Around Structures), 7.6 (Negotiate Adequate Mitigation for School Facilities Impacts), and 7.7 (Comply with the Healdsburg 2030 General Plan Park Land Standard) would reduce these impacts to a less-than-significant level. The Specific Plan for Area A also concluded that anticipated growth resulting from development of the plan area would not result in significant impact to police protection and other public facilities.

Discussion

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, other public facilities?

The proposed project would construct 11 residential units on an 11.4-acre site. As the proposed project is consistent with the development projected under the Specific Plan for Area A, there would

be no additional impacts on fire protection, police protection, schools, parks, and other public facilities beyond those analyzed in the Specific Plan Area A EIR. In addition, implementation of Specific Plan Area A Mitigation Measures 7.5 (Ensure that Buildings are Fire Safe and Fuel Breaks are Provided Around Structures), 7.6 (Negotiate Adequate Mitigation for School Facilities Impacts), and 7.7 (Comply with the Healdsburg 2030 General Plan Park Land Standard) would reduce these impacts to a less-than-significant level. The proposed project would not result in a new significant impact nor any more severe impact related to public services that was not identified in the Specific Plan Area A EIR.

XVI. Recreation	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Background

The Specific Plan Area A EIR noted that implementation of the specific plan would result in an increased demand for park and recreational facilities by new residents and would result in a significant impact. However, the EIR concluded that implementation of Specific Plan Area A Mitigation Measure 7.7 (Comply with the Healdsburg 2030 General Plan Park Land Standard) would reduce that impact to a less-than-significant level.

Discussion

Would the project:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

and

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The proposed project would include 11 residential units on an 11.4-acre site. With lot sizes ranging from 0.25 acres to 2.75 acres, the proposed residential units would have access to private open space. Because the proposed project is within the development projected under the Specific Plan Area A EIR and is not anticipated to degrade recreational facilities, there would be no additional impacts on recreation beyond those identified in the Specific Plan Area A EIR. Implementation of Specific Plan Area A Mitigation Measure 7.7 (Comply with the Healdsburg 2030 General Plan Park Land Standard) would reduce impacts to a less-than-significant level. In addition, the proposed project would not conflict with the adopted Open Space Plan (City of Healdsburg 2015). Compliance with Mitigation Measure 7.7 would be achieved through a condition of approval of the subdivision tentative map.

The proposed project would not result in a new significant nor more severe environmental impact related to recreation that were not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

References Cited

City of Healdsburg. 2015. *Healdsburg 2030 General Plan Policy Document*. Adopted July 6, 2009. Amended through 2015.

XVII. Transportation/Traffic	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b. Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion

Would the project:

a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

and

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The Specific Plan Area A EIR concluded that growth resulting from the development would not result in significant impacts related to pedestrians, bicyclists, construction, or parking. Because the proposed project is consistent with the level of development projected under the Specific Plan Area A, there would be no additional impacts on pedestrians, bicyclists, construction, or parking beyond those analyzed in the Specific Plan Area A EIR.

b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?

The following discussion of potential traffic congestion is provided for information only. The State CEQA Guidelines amendments adopted in 2019 specify that "a project's effect on traffic delay shall not constitute a significant environmental impact." (14 California Code of Regulations 15064.3[a]). The CEQA Guidelines now provide that "[v]ehicle miles travelled exceeding an applicable threshold of significance may indicate a significant impact" on transportation. (14 California Code of Regulations 15064.3[b][1]). In essence, vehicle miles travelled (VMT) is the new metric for transportation impacts.

The Specific Plan Area A EIR anticipated that population growth resulting from development could result in a significant traffic impact and identified one mitigation measure. Implementation of Specific Plan Area A Mitigation Measures 8.1 (Continue Monitoring Traffic to Determine the Need for Signals and Lane Modifications) would reduce this impact to a less-than-significant level.

The proposed project would construct 11 residential units. Lots 1 and 2 would be accessed from Rosewood Drive, Lots 3 thru 10 would be accessed from Parkland Farms Boulevard via a shared private driveway within the subdivision. Emergency egress and garbage collection from the site would be provided onto Long Acres Place, a public street. Private vehicles would be prohibited from entering or exiting the subdivision onto Long Acres Place, except during emergencies. Lot 11 would be accessed from Canyon Run.

Trip generation of the proposed project was calculated using information in the 2009 General Plan Draft Environmental Impact Report. The proposed project would generate an estimated 106 additional daily vehicle trips, with an estimated 11 vehicle trips during the p.m. peak hour (City of Healdsburg 2009).

The proposed project's vehicle trips would travel through the intersections surrounding the project site. The intersections near the project site (within approximately 1 mile) include Healdsburg Boulevard/Parkland Farms Boulevard, Healdsburg Boulevard/Grove Street, Healdsburg Boulevard/Sunnyvale Drive, U.S. 101 South Ramps/Dry Creek Road, U.S. 101 North Ramps/Dry Creek Road, Grove Street/Dry Creek Road, Healdsburg Boulevard/Dry Creek Road/March Avenue, University Avenue/March Avenue. Table 9 provides existing and cumulative levels of service (LOS) data gathered for these intersections per the *Healdsburg 2030 General Plan Update Transportation Study*.

Table 9. Existing and Future PM Peak Hour Level of Service

Intersection	Existing LOS (2008)	Future LOS (2030)
Healdsburg Boulevard/Parkland Farms	A	A
Healdsburg Boulevard/Grove Street	B	B
Healdsburg Boulevard/Sunnyvale Drive	A	A
Healdsburg Boulevard/Sunnyvale Drive (Westbound Approach)	B	C
U.S. 101 South Ramps/Dry Creek Road	F	C
U.S. 101 North Ramps/Dry Creek Road	F	D
Grove Street/Dry Creek Road	C	D
Healdsburg Boulevard/Dry Creek Road/March Avenue	C	C
University Avenue/March Avenue	A	A

The addition of 106 daily vehicle trips represents approximately 0.0017 percent of the total vehicle trips associated with the buildout of the adopted General Plan. The addition of 11 daily vehicle trips during the p.m. peak hour represents approximately 0.0023 percent associated with the buildout of the adopted General Plan. This amount of new daily vehicle trips and daily p.m. peak hour vehicle trips would not substantially increase traffic volumes at these or other nearby intersections, would not substantially increase average delay that would cause intersections that currently operate at acceptable LOS to deteriorate to unacceptable LOS, or would not substantially increase average delays at intersections that currently operate at unacceptable LOS.

The proposed project would not contribute considerably to LOS delay conditions because its contribution of an estimated 11 new p.m. peak hour vehicle trips would not be a substantial proportion of the overall traffic volume or the new vehicle trips generated by development within the specific plan area. The proposed project would also not contribute considerably to 2030 cumulative conditions; thus, the project would not have any significant cumulative traffic impacts.

Vehicle Miles Travelled: The Governor's Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) suggests a "screening threshold" for small projects. The Technical Advisory states that a project generating or attracting fewer than 110 trips per day "generally may be assumed to cause a less-than-significant transportation impact." The project would generate 106 trips per day. Based on the screening criteria, the project would not have a significant effect on transportation. Therefore, it would not result in a new or substantially severe impact that was not disclosed in the Specific Plan Area A EIR.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project is a residential subdivision. No component of the project would result in a change to air traffic patterns.

d) Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

and

e) Result in inadequate emergency access?

The project would not substantially increase hazards because of a design. Access to Parkland Farms Boulevard and the design of the private drive within the proposed subdivision would be designed in accordance with City standards. This would include meeting Fire Department requirements for emergency access. City standards would be applied as conditions of approval of the subdivision tentative map.

The proposed project would not result in a new or more severe environmental impact related to transportation that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

References Cited

Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. April. Available: http:/opr.ca.gov. Accessed: December 14, 2018.

City of Healdsburg. 2009. *General Plan Final Environmental Impact Report*.

XVIII. Utilities and Service Systems	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

and

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

and

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As discussed in the Specific Plan Area A EIR, the anticipated development would not result in a significant impact related to increased wastewater generation but the development would result in a significant impact related to potential road-widening impacts on existing leach fields. The Specific Plan Area A EIR concluded that implementation of Specific Plan Area A EIR Mitigation Measure 7.1 (Provide Hookups to City Sewer Service or Replace Leach Fields) would reduce this impact to a less-than-significant level.

The proposed project would construct 11 residential units on an 11.4-acre site that would connect to existing sewer service and would not require any road widening. The proposal will not, therefore, affect existing leach fields. According to the city's Urban Water Management Plan, the city expects that current capacity will be adequate to accommodate minimal residential buildout. Because the proposed project is within the development projected under the Specific Plan Area A and the Urban Water Management Plan, there would be no additional impacts related to water supply.

The North Trunk Sewer, constructed in 1995, was sized to accommodate projected growth Areas A, B, and C, as well as other anticipated in-fill development of the areas tributary to the North Trunk Sewer. The Healdsburg Sewer System Management Plan determined that the City wastewater treatment facility has adequate capacity to serve the project, as part of Area A (City of Healdsburg 2009). Therefore, the project would not have a new or more severe impact beyond those analyzed in the Specific Plan Area A EIR.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The Specific Plan Area A EIR determined that anticipated development would not result in a significant impact related to the need for additional off-site water storage and need for oversizing of onsite distribution lines. No mitigation measures were identified. As the proposed project is consistent with the level of development projected under the Specific Plan Area A, there would be no additional impacts related to the need for additional off-site water storage and need for oversizing of onsite distribution lines beyond those analyzed in the Specific Plan Area A EIR.

The Specific Plan Area A EIR determined that anticipated development could result in inadequate water pressure at high-elevation portions of the plan area. Implementation of Specific Plan Area A Mitigation Measure 7.2 would reduce this impact to a less-than-significant level. The proposed project would construct 11 residential units on the 11.4-acre project site and would require water pressure booster systems at two properties. Therefore, the proposed project would not result in a significant impact related to inadequate water pressure. No additional mitigation measures are required.

According to the project's initial stormwater low-impact development report, runoff from proposed impervious areas would be concentrated and treated onsite through designated vegetated buffer strips to provide treatment and infiltration trenches at various pipe outfalls to provide required retention (Adobe Associates, Inc. 2018). (See Appendix F). No additional mitigation measures related to stormwater generation or stormwater facilities are required, beyond compliance with the recommendations of that report.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?

The Specific Plan Area A EIR determined that the anticipated development could result in a significant impact related to the need for additional water production facilities. However, the EIR concluded that implementation of Specific Plan Area A Mitigation Measure 7.3 (Exclude the High-Elevation Area from Development or Require Oversized Water Lines) would reduce this impact to a less-than-significant level. According to the city's Urban Water Management Plan, population is estimated to increase by an additional 1,100 residents to 14,900 residents by 2025. The City's potable water sources come from wells that are adjacent to the Russian River and Dry Creek. As described in the plan, the City of Healdsburg does not expect a reduction in water supply under the scenarios present in the Urban Water Management Plan. The city is projected to have a water surplus water supply up to 2025. Therefore, the city has the sufficient water supplies available to serve the residential project from existing entitlements and resources and would not need new or expanded entitlements. As the proposed project is consistent with the level of development projected under the Specific Plan Area A and the Urban Water Management Plan, there would be no new or more severe impacts on water facilities beyond those analyzed in the Specific Plan Area A EIR.

The Specific Plan Area A EIR determined that the anticipated development would result in a significant impact related to the potential road-widening on existing water wells. Implementation of Specific Plan Area A EIR Mitigation Measure 7.4 (Provide Hookups to City Water Service or Replace Wells) would reduce this impact to a less-than-significant level. The proposed project would construct 11 residences that would connect to existing water service and would not require any road widening that could affect off-site wells. There would be no new or more severe impacts on water facilities beyond those analyzed in the Specific Plan Area A EIR.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

and

g) Comply with federal, state, and local statutes and regulations related to solid waste?

The Specific Plan Area A EIR determined that the anticipated increase in population would not result in a significant impact to the provision of solid waste collection and disposal. No mitigation measures related to solid waste collection and disposal were identified in the Specific Plan Area A EIR. According to the Sonoma County Waste Management Agency, the County has approximately 20 years of disposal capacity remaining based on the best available estimates of current and future disposal (Sonoma County Waste Management Agency 2014). The proposed project would have the opportunity to participate in the city's recycling programs (City of Healdsburg 2015). As the proposed project is consistent with the development level projected under the Specific Plan Area A, there would be no new or more severe environmental impacts on service systems related to solid waste beyond those analyzed in the Specific Plan Area A EIR.

References Cited

Adobe Associates, Inc. 2018. *Initial Storm Water Low-Impact Development Submittal for Parkland Farms Subdivision, Phase 11*. March 8.

City of Healdsburg. 2009. *City of Healdsburg Sewer System Management Plan*. Healdsburg, CA. June. (Revised 2/2014)

City of Healdsburg. 2015. Recycling Programs Website. Available: http://www.ci.healdsburg.ca.us/434/Recycling-Programs. Accessed: November 17, 2015.

Sonoma County Waste Management Agency. 2014. Annual Report Summary.

XIX. Wildfire	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion

Would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

As discussed above, access to Parkland Farms Boulevard and the design of the private drive within the proposed subdivision would be designed in accordance with City standards including meeting Fire Department requirements for emergency access. Prior to construction, advance notification would be given to emergency service providers should any lane closures or detours be needed. The proposed project would not result in a new or more severe environmental impact related to emergency access that was not identified in the Specific Plan Area A EIR. No additional mitigation measures are necessary.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

and

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The California Supreme Court has determined that impacts of the environment on a project are not subject to CEQA review and are not considered to be significant unless the project would exacerbate an existing risk. (*California Building Industry Assoc. v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369) This includes wildfire hazards. The proposed project would exacerbate an existing fire hazard if it would introduce new potential sources of ignition.

Since the adoption of the Specific Plan Area A EIR in 1994, the project site has been identified by the City of Healdsburg as being in a in a High Fire Hazard Area or wildland-urban interface. This is synonymous with the Higher Fire Severity Zones identified by CalFire. The City Fire Chief is authorized to establish this designation because the project site in s Local Responsibility Area not subject to CalFire's protection. The designation was adopted by ordinance and is in Chapter 15.08 (Section 15.08.020) of the Healdsburg Municipal Code.

The September 2018 *Vegetation Management and Enhancement Plan* submitted for the project includes tree removal and vegetation management to reduce wildfire risk within the proposed subdivision. Defensible space provisions include general vegetation removal to be undertaken at the time of subdivision development to remove fire prone trees and ladder fuels such as shrubs and bushes, and building site vegetation management within zones of 10 feet and 50 feet of the future building. Fuel reduction within zones of 50 to 100 feet of buildings and beyond 100 feet will take place as part of the general vegetation removal (McNair Landscape Architecture 2018). This vegetation management will reduce fuel loads, limit trees and bushes in proximity to future buildings, and otherwise reduce wildfire risk on the site.

The City Fire Marshal has observed that the Vegetation Management and Enhancement Plan recommends the use of mulch and bark around the trees. The Fire Marshal notes that bark and mulch can carry and keep fires burning around the structures and recommends that bark and mulch be limited in use and not within 5 feet of any structure. The Fire Marshal also has concerns over vegetation plantings underneath the trees. Such plantings can increase ladder fuels that feed wildfire and allow it to gain a foothold into trees thereby increasing its intensity and danger. The Fire Marshal did note that the thinning of the trees and increasing the drip line separations will help reduce the chances of a crown fire. The Vegetation Management and Enhancement Plan should be revised to reduce the potential for fires to spread as a result of its practices.

The adequacy of the proposed fire water system was modeled using public domain pipe distribution system modeling software (EPANET 2). (See Appendix G). The analysis model contains the existing 12-inch line, existing hydrants, and the proposed water line and fire hydrants. The analysis found that the proposed water system is sufficient and can deliver the required fire flow. Velocities of the proposed 8-inch line are under 10-fps with a flow rate of 1,500-gpm at any given fire hydrant. Residual pressures in the model were all above the minimum threshold of 20-psi at fire flow (Adobe Associates, Inc. 2018). Modelling indicates that the site would have sufficient fire flow in case of a wildfire.

With the implementation of the following mitigation measures, the proposed project is not expected to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. There is no new or substantially more severe impact relative to the impacts analyzed in the Specific Plan Area A EIR.

Mitigation Measure Fire-1: Revise the Vegetation Management and Enhancement Plan per Requirements of the Healdsburg Fire Department

Prior to submittal of the subdivision final map for consideration by the City, the applicant shall submit the Vegetation Management and Enhancement Plan to the Healdsburg Fire Department for review. The applicant shall revise the Vegetation Management and Enhancement Plan as required by the Fire Department.

Mitigation Measure BIO-4: Vegetation Management and Enhancement Plan Implementation

(Described above.)

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site is not within an identified high-risk fire zone and includes various project measures to minimize risk of fire. Therefore, it will not expose people or structures to significant risks that might otherwise result from a fire.

References Cited

Adobe Associates, Inc. 2018. *Fire Flow Study for Parkland Farms Subdivision*. September.

McNair Landscape Architecture. 2018. *Parkland Farms Unit 11 Vegetation Management and Enhancement Plan*. September.

California Department of Forestry and Fire Protection. 2008. Sonoma County Very High Fire Hazard Severity Zones in LRA As Recommended by CAL Fire.

XX. Mandatory Findings of Significance	New Significant Impact	Substantially More Severe Significant Impact	Less-than-Significant Impact with Additional Mitigation	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☐	☒
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

No. As discussed in IV. Biological Resources, additional mitigation measures BIO-1, BIO-2, and BIO-3 would be implemented to bring impacts on birds and raptors, including the white-tailed kite, to less-than-significant levels. As discussed in V. Cultural Resources, additional mitigation CUL-1 would be implemented to keep impacts on historical resources to a less-than-significant level.

b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No. The proposed project would not result in impacts that are individually limited but cumulatively considerable. As discussed under aesthetics, the area sharing views with the project site (i.e., the viewshed) has not substantially changed from the environment anticipated in the 1994 Specific Plan for Area A and analyzed in the EIR for that specific plan. The development resulting from the project is consistent with the Specific Plan for Area A and therefore will not increase the expected impact level. Therefore, the project will not substantially change the cumulative impact of development on

the viewshed. The proposed project is completely within the area analyzed in the Specific Plan Area A EIR and, as detailed in previous sections of this checklist, new measures identified would bring new individual impacts to less-than-significant levels.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

No. The proposed project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. The project is located at an undeveloped site and would not result in displacement of homes or a community. Adverse effects on human beings can generally relate to the topics of noise or hazards and hazardous waste. As discussed in XIII. Noise, measures identified in the Specific Plan Area A EIR would reduce impacts to a less-than-significant level. As discussed in IX. Hazards and Hazardous Waste, no new measures are needed to prevent exposure of people or structures to risk of loss, injury, or death involving wildland fires, the release of hazardous materials, or safety hazards in relation to airports.

XXI. Earlier Analysis

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. (Section 15063(c)(3)(D)). In this case, a discussion should identify the following on attached sheets.

a. **Earlier analyses used.** The City certified an EIR in 1994 with its approval of the Specific Plan for Area A. A copy of the draft and final EIR are available at the City Planning and Building Department at 401 Grove Street in Healdsburg.

b. **Impact adequately addressed.** The responses to the questions in the above checklist identify those project impacts that are within the scope of and adequately analyzed in the Specific Plan for Area A EIR. The proposed project would not result in any new or substantially more severe environmental impacts beyond those analyzed in the Specific Plan Area A EIR.

c. **Mitigation measures.** The pertinent mitigation measures from the Specific Plan for Area A EIR will be required of the project. Where necessary to address project-specific impacts, additional mitigation measures have been identified.

Authority: Public Resources Code Sections 21083 and 21083.05.

Reference: Section 65088.4, Government Code; Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino* (1988), 202 Cal. App. 3d 296; *Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Appendix A

Site Photographs and Visual Simulation Package

June 25, 2015

NORTH

0 50 100 FEET

GRAPHIC SCALE

PARKLAND FARMS SUBDIVISION SITE PHOTOGRAPHS

120 PARKLAND FARMS LLC
1746 Union Street, San Francisco, Ca

adobe associates, inc.
civil engineering I land surveying I wastewater
1220 N. Dutton Ave., Santa Rosa, CA 95401
P. (707) 541-2300 F. (707) 541-2301
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"A Service You Can Count On!"

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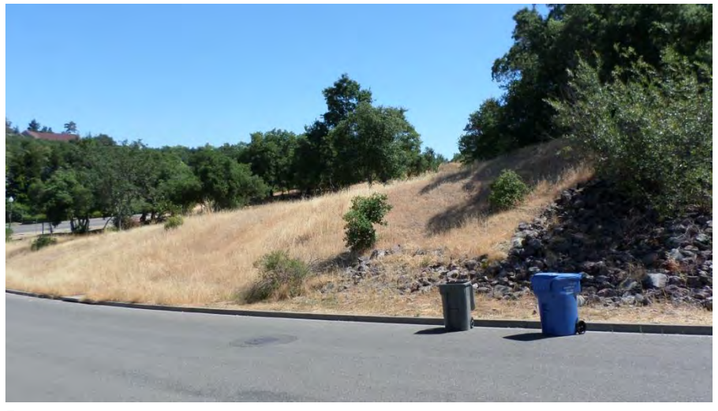

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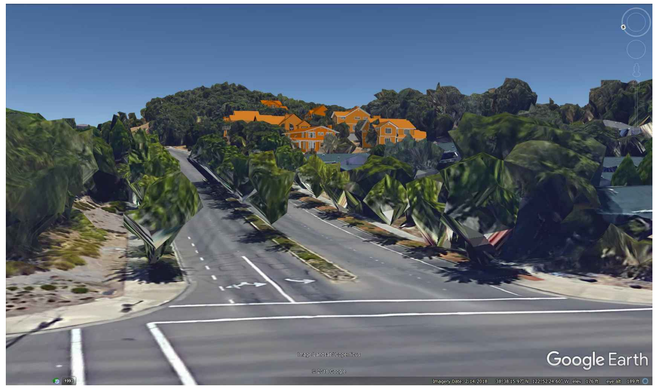
VIEW #1

EAST, FROM HIGHWAY 101



VIEW #2

SOUTHEAST, FROM HEALDSBURG AVE &
PARKLAND FARMS BLVD INTERSECTION

VIEW #3

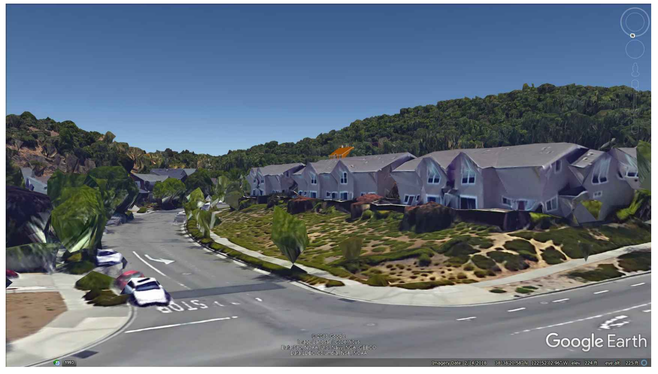
SOUTHEAST, FROM PARKLAND FARMS BLVD &
PARKWOODS COURT INTERSECTION

VIEW #4

NORTHEAST, FROM ROSEWOOD

VIEW #5

SOUTH, FROM WILDHORSE CT

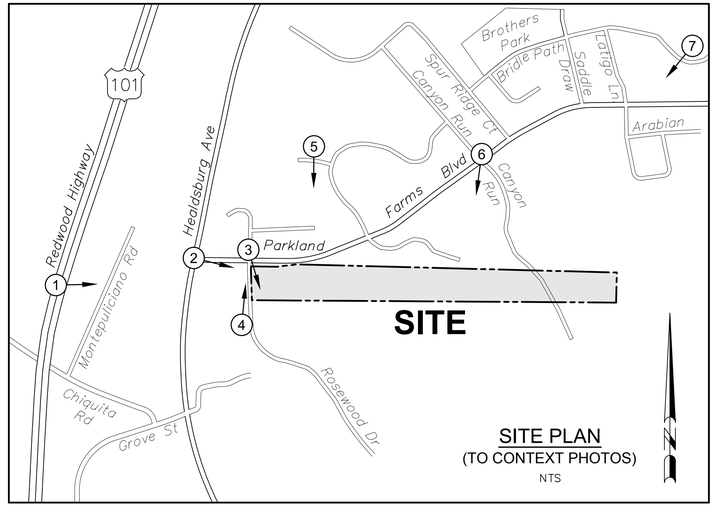


VIEW #6

SOUTHWEST, FROM PARKLAND FARMS BLVD &
CANYON RUN

VIEW #7

SOUTHWEST, FROM 384 BRIDLE PATH



SITE PLAN
(TO CONTEXT PHOTOS)
NTS

T:\2014 PROJECTS\14032\dwg\Adobe-Design\Exhibits\14032 - Visual Analysis & Site Context.dwg, Aaron Rodriguez, 11/26/2018 1:36:42 PM

Revisions

No.	Date	Description	Approved

adobe associates, inc.
civil engineering | land surveying | wastewater
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"A Service You Can Count On!"

PROFESSIONAL ENGINEER * REGISTERED * JAMES L. JENSEN * No. 73042 Exp.12/31/2018 * CIVIL * STATE OF CALIFORNIA

James L. Jensen, RCE 73042
My license expires 12/31/2018

PARKLAND FARMS SUBDIVISION, PHASE 11

VISUAL SIMULATION & SITE CONTEXT

120 Parkland Farms Boulevard
Healdsburg, California
APN 091-040-111 & 114

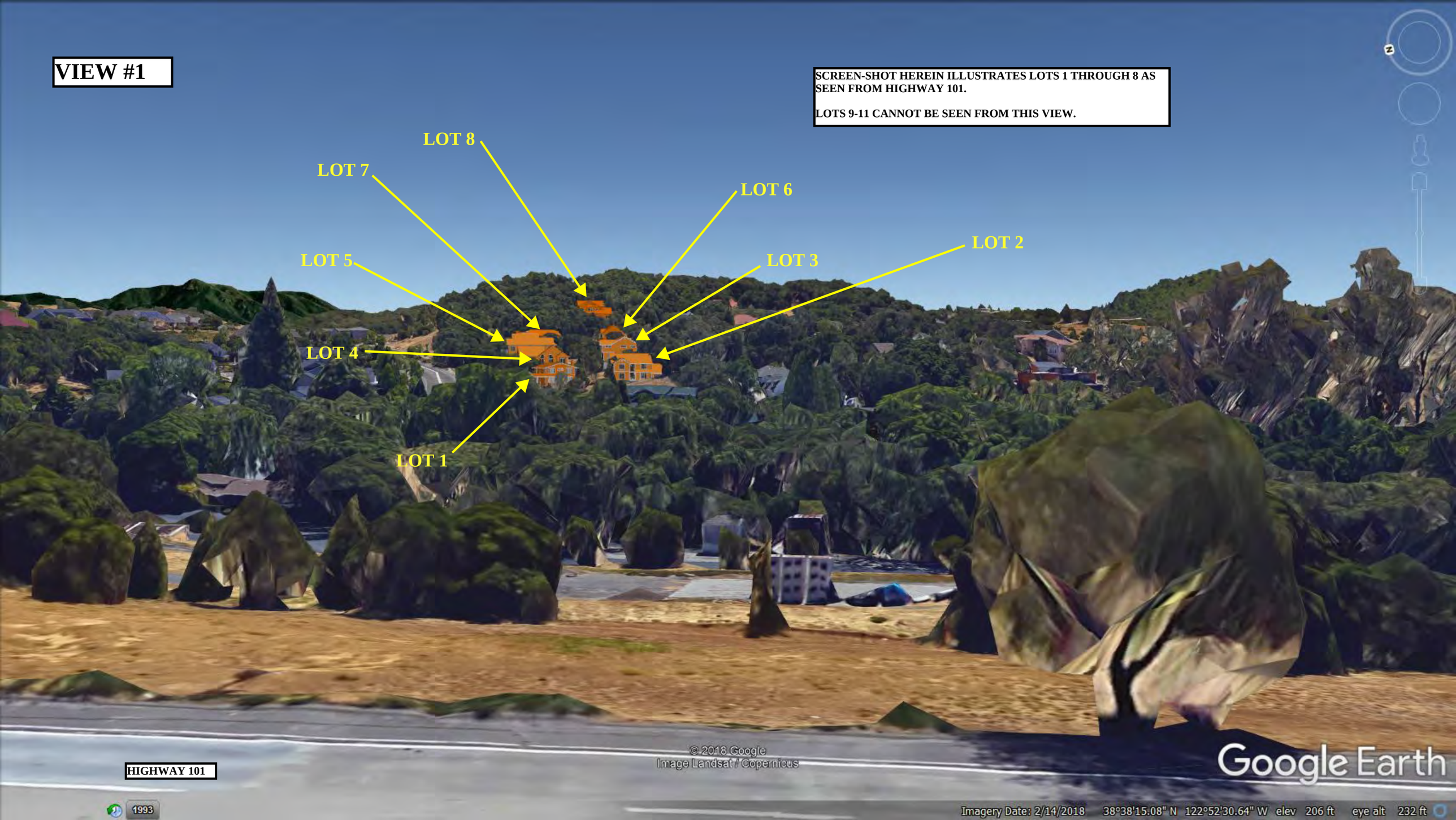
SCALE: AS NOTED
Date: November 26, 2018
Design by: JEP
Drawn by: AAI
Checked by: JLJ

Sheet 1 of 1 Sheets
Job 14032

VIEW #1

SCREEN-SHOT HEREIN ILLUSTRATES LOTS 1 THROUGH 8 AS SEEN FROM HIGHWAY 101.

LOTS 9-11 CANNOT BE SEEN FROM THIS VIEW.



VIEW #2

LOT 8

LOT 6

LOT 5

LOT 3

LOT 2

LOT 4

LOT 1

PARKLAND FARMS

HEALDSBURG AVE

Image Landsat / Copernicus

© 2018 Google

1993

Imagery Date: 2/14/2018 38°38'15.97" N 122°52'24.60" W elev 176 ft eye alt 189 ft

SCREEN-SHOT HEREIN ILLUSTRATES LOTS 1 THROUGH 8 AS SEEN FROM THE INTERSECTION OF PARKLAND FARMS AND HEALDSBURG AVE.

LOT 7 CANNOT BE SEEN BECAUSE OF OBSTRUCTIONS SUCH AS TREES AND LOT 5, AS WELL AS THE ELEVATION OF THE SCREEN-CAPTURE'S PERSPECTIVE.

LOTS 9-11 CANNOT BE SEEN FROM THIS VIEW.

VIEW #3

LOT 7

LOT 4

LOT 3

LOT 1

LOT 2

LOT 5

PARKLAND FARMS

ROSEWOOD

PARKWOODS CT

SCREEN-SHOT HEREIN ILLUSTRATES LOTS 1 THROUGH 8 AS SEEN FROM THE INTERSECTION OF PARKLAND FARMS AND PARKWOODS CT, LOOKING TOWARD ROSEWOOD.

LOT 8 CANNOT BE SEEN BECAUSE OF OBSTRUCTIONS SUCH AS TREES AND NEIGHBOURING LOTS, AS WELL AS THE ELEVATION OF THE SCREEN-CAPTURE'S PERSPECTIVE.

LOTS 9-11 CANNOT BE SEEN FROM THIS VIEW.

VIEW #4

SCREEN-SHOT HEREIN ILLUSTRATES LOTS 1 & 2 AS SEEN FROM ROSEWOOD, LOOKING TOWARD PARKLAND FARMS-ROSEWOOD INTERSECTION.

LOTS 3-11 CANNOT BE SEEN FROM THIS VIEW.

LOT 1

LOT 2

PARKLAND FARMS BLVD

ROSEWOOD

VIEW #5

LOT 8

LOT 7

LOT 6

LOT 5

LOT 3

LOT 2

LOT 4

LOT 1

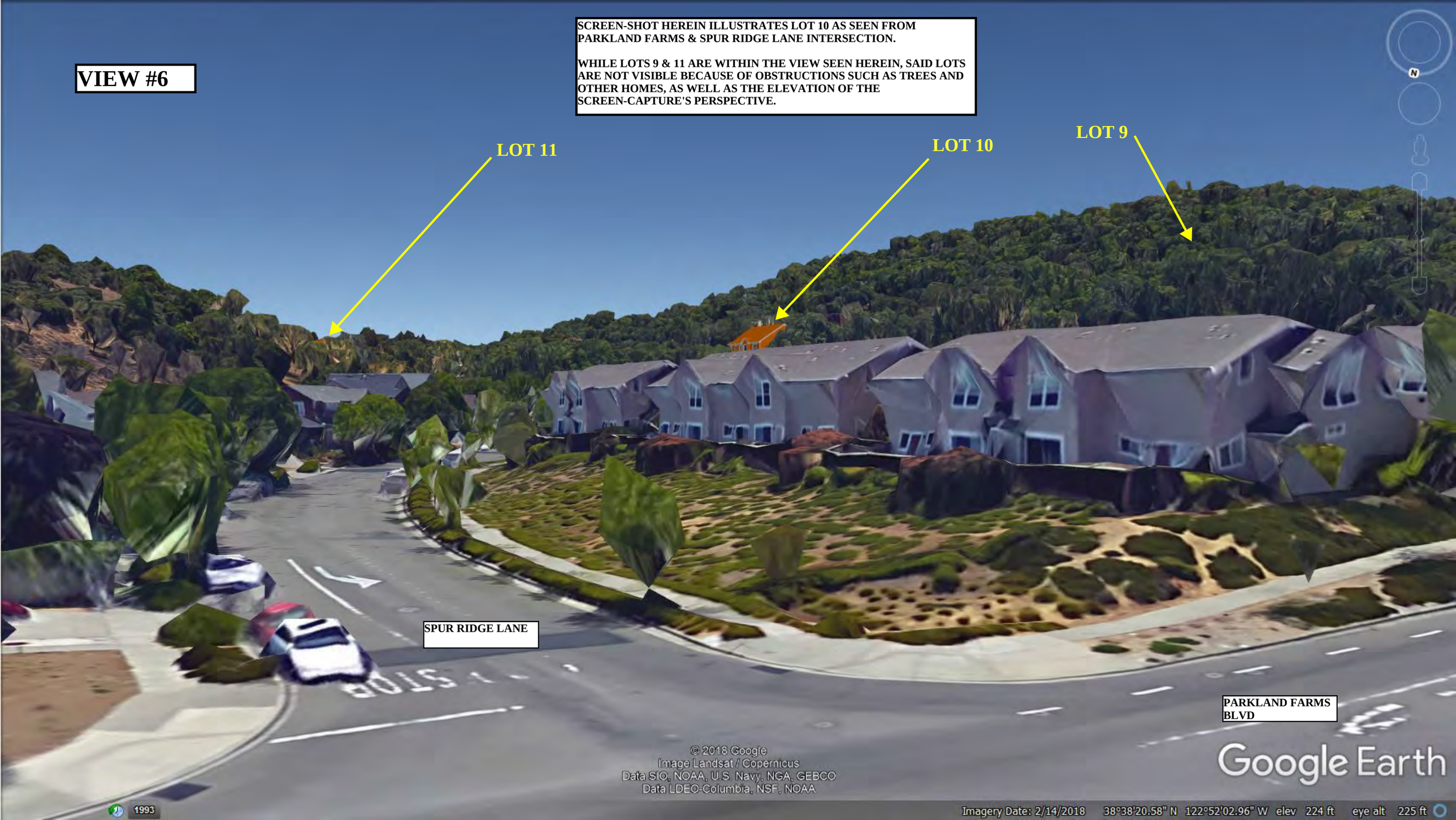
SCREEN-SHOT HEREIN ILLUSTRATES LOTS 1 THROUGH 8 AS SEEN FROM WILD HORSE.

LOTS 9-11 CANNOT BE SEEN FROM THIS VIEW.

VIEW #6

SCREEN-SHOT HEREIN ILLUSTRATES LOT 10 AS SEEN FROM PARKLAND FARMS & SPUR RIDGE LANE INTERSECTION.

WHILE LOTS 9 & 11 ARE WITHIN THE VIEW SEEN HEREIN, SAID LOTS ARE NOT VISIBLE BECAUSE OF OBSTRUCTIONS SUCH AS TREES AND OTHER HOMES, AS WELL AS THE ELEVATION OF THE SCREEN-CAPTURE'S PERSPECTIVE.



LOT 10

LOTS 1-8

LOT 9

VIEW #7

SCREEN-SHOT HEREIN ILLUSTRATES LOTS, 1-10 AS SEEN FROM THE EAST OF 384 BRIDLE PATH.

LOT 11 CANNOT BE SEEN FROM THE VIEW HEREIN.

Appendix B

Vegetation Management and Enhancement Plan

Parkland Farms Unit 11
Vegetation Management and Enhancement Plan
June, 2019

Introduction

Parkland Farms Unit 11 is a hillside subdivision proposed on the property located at 120 Parkland Farms Boulevard in Healdsburg, California. The property is densely forested with underlying vegetation. Extensive review of the property has resulted in a determination that mitigation of tree removal by means of planting additional trees on the property is not feasible, as the property does not appear to have capacity for additional trees.

An alternative approach, as detailed in this Vegetation Management and Enhancement Plan (VMEP) is to manage the horticultural resources within the site in a manner that minimizes impacts related to the development and to improve the viability of existing forestation through the removal of select understory growth and other vegetation considered to be “ladder fuel”.

The primary objective of this approach is to combine the objectives of fire prevention and environmental stewardship by identifying specific mitigation measures that will, when undertaken, improve the Oakland habitat and reduce the risk of wildfire.

This document constitutes the written narrative component of the VMEP as required by the City of Healdsburg Department of Community Development. The VMEP provides for establishing and maintaining “defensible space vegetation management’” around future residences and roadway or driveway edges as well as general enhancement of the natural character of the landscape.

The Key Results of the VMEP are:

1. To reduce the rapid transmission of heat and flame from a wildland fire to the structure(s) through selective thinning of native vegetation.
2. To create defensible space through separation, reduction, and disruption of the horizontal and vertical continuity of fire fuels.
3. To establish that replacement landscaping, if any, is of low volume, well separated, fire resistant, and ideally well-irrigated plants.
4. To retain healthy mature oaks and other native tree species throughout the project site.
5. To ensure that annual maintenance of common areas, if any, is guaranteed by a covenant binding the owners of the common areas to provide it.

6. To provide a document from which a contractor may provide a fee proposal to perform the vegetation management and adequately execute the work.

This document contains supporting instruments as follows:

- **Figure A:** Graphic representation of property, trees, building envelopes, and Defensible Space Zones (Zone)
- **Appendix A:** Landscape Guidelines, containing information pertaining to how landscaping should generally be planned and implemented with subdivision improvements and future custom lot development.
- **Appendix B:** Specific Tree Protection Guidelines, containing information pertaining to how work should be performed in the vicinity of trees to be preserved, and how plans should be prepared as they pertain to said work.
- **Table A:** tabulation of all trees, species, size, conditional assessment, with information pertaining to treatment. Color coding is described by annotation in the tabulation. *Trees being removed for fire fuel reduction purposes are noted as "Removal of Fuel".*
- **Table B:** tabulation of heritage trees only, containing same information as Table A. This table is included to simplify presentation of information for heritage trees.

Table A Terminology

Construction Impact is evaluated as follows:

- Lot X: if a tree is within a building envelope as shown on the tentative map. This indicates that a tree is not impacted by the installation of the subdivision improvements; however, impacts may occur at the time of the custom development of the lot.
- In Road: if a tree is within the paved limits of road improvements. This designation assumes loss of the tree; however, implementation of the tree protection measures contained herein are intended to preserve as many of these trees as possible.
- None: if no impacts to a tree are anticipated.
- Pyrophytic: if a tree is a known fire risk.
- Low: if grading limits of the road are within 0% to 25% of a tree's tree protection zone (TPZ).
- Moderate: if grading limits of the road are within 25% to 50% of a tree's TPZ.
- Significant: if grading limits of the road are within inner half of a tree's TPZ but not within a tree's critical root zone (CRZ).
- CRZ: if grading limits of the road are within a tree's CRZ.

The following **Health Ratings** are provided by Horticultural Associates.

(1) Poor: decline to the tree has progressed beyond the point of it being able to return to a healthy condition again. Long-term survival is not expected. Rating designation includes dead trees.

(2) Marginal: health and vigor are significantly compromised, distress is highly visible and present to the degree that survivability is questionable.

(3) Fair: health and vigor are somewhat compromised, distress is visible, pest or disease may be present and affecting health, problems are generally correctable.

(4) Good: health and vigor are average, no significant or specific distress symptoms, no significant pest or disease.

The following **Structure Ratings** are provided by Horticultural Associates.

(1) Poor: hazardous structural condition which cannot be effectively corrected with pruning or other measures, may require removal depending on location and the presence of targets.

(2) Marginal: serious structural problems are present which may or may not be correctable with pruning, cabling, bracing, etc.

(3) Moderate: normal, typical structural issues which can be corrected with pruning.

(4) Good: minor structural problems may be present which do not require corrective action.

Recommendations are defined as follows:

- Probable Removal: any tree anticipated to be lost due to impacts of construction. Tree protection measures will be implemented under the observation of the arborist in order to attempt successful preservation.
- Remove for Main Road: any tree within the footprint of the main road as shown on

the improvement plans. Loss is certain.

- Remove for Lot X Access: any tree within the footprint of a lot's vehicular access as shown on the improvement plans. Loss is certain.
- None at this time: no impacts will occur to this tree with construction of subdivision improvements. Includes trees located within building envelopes that may be impacted by future custom development.
- Remove due to condition: any tree with lowest health or structure rating.
- Removal of Fuel: any pyrophytic species.
- Protection Measures: implement the Specific Tree Protection Guidelines as described in Appendix B and excluding section Heritage Tree Specific Guidelines; applies to Moderate and Significant impact trees. Implementation to be under the direction of the arborist with observation as deemed necessary by the arborist.
- Observation: implement the Specific Tree Protection Guidelines as described in Appendix B, including section Heritage Tree Specific Guidelines.

Color Coding:
Green: represents a tree of height less than 20' being preserved with no protective measures (graphic map ONLY, not used in Table A or B).
Red: represents a tree being removed or of Probable Removal recommendation (Heritage included).
Purple: represents a pyrophytic species tree being removed for reduction of fuel purposes.
Yellow: represents a tree of low to significant anticipated impact, not scheduled for removal, not of pyrophytic species, not of Heritage Tree classification, that requires implementation of tree protection measures.
Blue: represents a tree of height 20' or greater that is not a heritage tree, not of pyrophytic species, and not anticipated for low to significant impact (graphic map ONLY, not used in Table A or B).
Orange: represents a heritage tree being preserved.

Recommendations

To achieve these Key Results, the property has been reduced to various Zones, beginning with the Building Envelope and expanding outward into the remaining areas of the property, with underlying general requirements. The following requirements are presented from the perspective that removal of healthy trees for purposes of fuel reduction is not feasible or appropriate for this project or property, while all trees recommended for removal in the overall tree assessment presented in Table A, provided by Horticultural Associates, should be removed throughout the property, *including trees of known pyrophytic[1] species*.

Building envelopes and resulting Zones are graphically represented on **Figure A, Vegetation Management Plan**, contained herein. This graphic illustrates heritage trees to be preserved and to be removed.

Underlying requirements and zone-specific requirements are as follows:

Underlying General Requirements (to be implemented throughout the property)

These general requirements shall be implemented at the time of subdivision improvement construction.

Dead and dying trees, ladder fuels, and non-native invasive plants should be removed. The

majority of pyrophytic plant species should be removed, including small diameter (less than 8") firs, bays, or clustered pyrophytic species with trunks smaller than 8" diameter, and larger diameter pyrophytic species in areas of high tree density. Pyrophytic tree species are shown in **Table A** with purple/magenta highlighting as recommended for removal.

Understory brush, woody shrubs, and any dead combustible material should be removed, including removal of deadwood by pruning of healthy trees. The property must be assessed for these materials prior to contracting or commencement of work as these materials can rapidly change quantity and are not quantified in this document.

Annual grasses should be mowed by tractor to a maximum height of not more than 3". Annual grasses appear to cover approximately 20% of the 11.39 acre property.

All trees shown in **Table A** for removal, in addition to those of known pyrophytic species, shall be removed at the time of subdivision improvement construction.

Upon completion of these underlying general requirements, trees recommended for retention shall be protected in accordance with the requirements of **Appendix B**, with respect to their tree protection zones (TPZ) as described in **Table A**. *Tree protective fencing shall be delineated on any improvement plan prepared for issuance of a grading or building permit.*

Defensible Space Zone I (Building Envelopes):

This Zone may be difficult to assess with the prospect of future custom lot development; therefore, vegetation management practices are described in relation to the delineated building envelope and in relation to the future custom development.

In relation to the delineated building envelope, all underlying general requirements must be implemented at the time of the subdivision improvements construction.

In relation to future custom development, this zone consists of areas within 10 feet of building structures. Generally, tall shrubs and trees are not allowed in this zone. At the time of custom lot development, tall trees within 10' of any proposed structure should be removed. No trees, except those of pyrophytic species as defined in **Table A**, should be removed within the building envelope at this juncture. All tall shrubs are to be removed at the time of the subdivision improvements construction.

At the time of subdivision improvement construction, the delineated building envelopes may be staked by a professional land surveyor to provide accuracy in the field for implementation of the work from Zone 1 and moving outward.

Defensible Space Zone II:

This Zone extends from the edge of Zone I to a distance 50 feet from building envelopes to account for the flexibility of future structure location within the delineated building envelopes. Existing oaks should be preserved with trees pruned to remove dead wood and thin dense structures. Mature trees should have all ladder fuel (shrubs, brush) removed from within 10 feet of the tree dripline and lower limbs pruned to provide a 10 foot clearance over the surrounding uphill grade.

Young, or semi-mature trees less than 40 feet in height should have the lower limbs removed to a height equal to 25% of the total tree height above the uphill grade (example: 20 foot tree requires a 5 foot uphill grade clearance).

Landscaping in this Zone shall be applied in accordance with Appendix A, Landscape Guidelines.

Defensible Space Zone III:

This Zone extends from 50 to 100 feet from delineated building envelopes. This Zone is expected to receive only the treatment prescribed in the underlying general requirements, which should be implemented at the time of subdivision improvement construction.

Landscaping in this Zone shall be applied in accordance with Appendix A, Landscape Guidelines. It is advised that the overall landscape be less dense with greater separation between planting islands.

Defensible Space Zone IV:

This Zone extends beyond 100 feet from the building envelopes This Zone is expected to receive only the treatment prescribed in the underlying general requirements, which should be implemented at the time of subdivision improvement construction.

Landscaping in this Zone shall be applied in accordance with Appendix A, Landscape Guidelines. It is advised that the overall landscape be less dense with greater separation between planting islands.

Common Areas

Common areas are limited in this project to roadways serving multiple parcels and services, which will be maintained through a road maintenance agreement. The main roadways will have a minimum pavement width of 16 feet with one-foot gravel shoulders.

All brush and shrub species are to be removed from shoulder areas (five feet from paved surfaces). Individual oak and ornamental trees can remain adjacent to the road way, provided a minimum 14-foot clearance is maintained over the pavement surface. Annual grasses can be retained in the shoulder areas, provided the grasses are maintained in accordance with the underlying general requirements.

This work should be implemented at the time of subdivision improvement construction. Staking of the roadway centerline is highly recommended prior to contracting and commencement of this work.

Summary of Trees Exceeding 20' in Height (excluding heritage)

As stipulated in Section 11.4.2, Ridgelands, of the City of Healdsburg Area A Specific Plan:
Structures shall be designed and located, and grading and other construction activities shall be performed so that no trees over 20 feet tall are removed or disturbed. If removal or disturbance of such trees is found to be necessary, replacement is required, using tree species native to the local area with minimum height and spread of 12 and 8 feet, respectively, at a minimum replacement ratio of 3:1.

A significant quantity of trees, with height equal to or greater than 20', exist on the site. Removal of a portion of these trees is necessary in order to develop the property in accordance with the General Plan and Specific Plan; however, replacement is not viable on this property due to the lack of area suitable to receive new plantings with a high rate of survivability. As a result, the project has been designed to minimize removal of trees in this classification.

Trees in this classification are summarized as follows[1]:

Total trees of height 20' or greater:	712[2]
Removed due to condition:	8 (1.1%)
Removed for main road:	41 (5.7%)
Removed as fuel reduction:	52 (7.3%)
Removed for lot access:	7 (0.9%)
Probable removal:	7 (0.9%)
Protection measures implemented:	52 (7.3%)
Total to be removed:	115 (16.1%)
Removed for Project[3]:	55 (7.7%)

1 Includes trees on property outside the Scenic Ridgeline as shown on Figure 3F of the Area A SP.
2 See Table A for detail.
3 Excludes trees removed due to condition and as fire fuel reduction; includes probable removal.

Summary of Heritage Trees

A total of 20 heritage trees exist on the property being developed. Heritage trees are summarized as follows*:

Total heritage trees:	20
Removed due to condition:	2 (10.0%)
Removed for main road:	2 (10.0%)
Probable removal:	1 (5.0%)
To be observed during work:	7 (35.0%)
Total to be removed:	5 (25.0%)
Remove for Project**:	3 (15.0%)

*See Table B for detail.
**Excludes trees removed due to condition, includes probable removal.

Annual Maintenance Requirements:

Maintenance of the landscape within the various defensible zones and common areas will be a perpetual requirement of the individual homeowners and roadway maintenance agreement. These requirements shall be incorporated as part of the CCRs for the project.

Following are the maintenance requirements within defensible space zones:

1.0 Annual grasses: All annual grasses within the 50-foot defensible zones (Zone II) surrounding structures and the five-foot shoulder distance along roadways shall be mowed to a height of three inches or less. Timing of mowing will generally occur between May 1 and June 1 depending upon moisture content of grasses. It may be necessary to mow the grass areas more than once in any one year to maintain the three-inch maximum height of dried grasses. All invasive shrubs shall be removed from grass areas to reduce fire hazard.

2.0 Shrub/groundcover plantings: Landscape areas within the 50-foot defensible zones shall be managed so that plant heights and separations are maintained as described in the landscape guidelines. Any new or additional plantings shall also comply with these guidelines. All irrigation systems shall be operational and maintained to provide regular irrigation to plantings. Any dead plants shall be removed immediately. Plants, which become excessively large or woody, shall be removed or pruned in a manner to maintain compliance.

3.0 Trees: Separation between individual trees and tree clusters shall be maintained as described in the landscape guidelines. Trees shall be pruned as required to remove dead wood and to thin excessively dense branch structures. Any plants constituting a ladder fuel shall be removed from below the tree crown dripline. As trees mature, removal of trees may be required to maintain proper separation of tree crowns.

Conclusion

The key results set forth in the Introduction section of this document are anticipated to be achieved as follows:

Key Result 1: To reduce the rapid transmission of heat and flame from a wildland fire to the structure(s) through selective thinning of native vegetation.

Smaller trees of known pyrophytic species will be generally removed from the site in accordance with **Table A**. Implementation of the underlying general requirements for the property will eliminate dead and dying trees, ladder fuels, non-native invasive plants, understory brush, woody shrubs, any dead combustible material, dead wood, and long dead grasses.

Key Result 2: To create defensible space through separation, reduction, and disruption of the horizontal and vertical continuity of fire fuels.

The creation of Zones, and appropriate vegetation treatment measures for each Zone, will allow for initial fuel modification and detailed vegetation treatment during construction of the subdivision improvements and also provide clear direction to City staff and future property owners for custom development of each lot.

Key Result 3: To establish that replacement landscaping, if any, is of low volume, well separated, fire resistant, and ideally well-irrigated plants.

The Landscape Guidelines contained herein will allow for establishment of rules and policies for the development of the subdivision improvements, and for future individual custom lot development.

Key Result 4: To retain healthy mature oaks and other native tree species throughout the project site.

Of the approximately 743 oak species trees on the property, regardless of condition or size, approximately 57, or 7.7%, are scheduled for removal.

Key Result 5: To ensure that annual maintenance of common areas, if any, is guaranteed by a covenant binding the owners of the common areas to provide it.

The inclusion of ongoing annual maintenance requirements in the project CC&Rs will ensure that said maintenance is performed.

Key Result 6: To provide a document from which a contractor may provide a fee proposal to perform the vegetation management and adequately execute the work

The information contained in this document, including **Figure A** and **Table A**, quantify the scope of work pertaining to the vegetation management on this property.

APPENDIX A, LANDSCAPE GUIDELINES

The following guidelines should be utilized as conditions of approval for improvement plans associated with subdivision improvement construction as well as any future design review approval for future custom homes. Landscape guidelines are:

1. Use well-irrigated, fire resistant plant species. Landscape shrubs and groundcovers should generally be low growing with low foliage density.
2. Landscape plantings should be grouped in island-type configurations with a maximum 18 feet diameter. Shrub/groundcover island plantings should be separated by a distance no less than two times the height of the overall shrub height (use mature or maintained height). Woody shrubs and ground covers are not recommended in Zone I. The maximum amount of woody shrubs or groundcovers should not exceed 30% of the total area within Zone II. Larger amounts of woody shrubs and groundcovers are acceptable beyond Zone II, provided the ongoing recommendations of this document are implemented in perpetuity.
3. New tree plantings should use fire-resistant species. Fire resistant trees include species which are deciduous, have large fleshy leaves, and open limb structures. Trees to avoid include conifers (i.e. pines, cedars, cypress, junipers) and evergreen trees with foliage containing oils, or wax components (i.e. eucalyptus, bay laurels). Native oak species are naturally fire resistant and a desirable tree species.
4. Trees, or tree clusters of limited size, should be separated by distances of at least 15 to 20 feet on moderate slopes and by 10 feet on flat areas. Shrub and groundcover plantings are generally not recommended for use below tree driplines and especially below native oak species. The use of a two to four inch deep bark mulch is the preferred landscape treatment below native tree crown driplines. If a groundcover is to be used below an ornamental tree, then the height should be limited to a maximum 18-inch height and the plants should receive regular irrigation.
5. Irrigated lawns are a desirable fire-resistant element, but are generally not recommended in large areas in order to minimize water usage.
6. Non-irrigated grass areas require regular mowing to a maximum three-inch height.

[1] Pyrophytic plant- fire prone plant, which ignites quickly and burns intensely.

APPENDIX B

SPECIFIC TREE PROTECTION GUIDELINES
For Construction Around Preserved Trees

PARKLAND FARMS RESIDENTIAL DEVELOPMENT
Healdsburg, CA

INTRODUCTION

Great care must be exercised when development is proposed in the vicinity of established trees of any type. The trees present at this project require specialized and aggressive protection techniques during all grading and construction activities to minimize negative impact on their long-term health and vigor.

The area immediately beneath and around the Tree Protection Zone is especially critical, and the requirements and procedures that follow are established to protect short and long-term tree integrity. The purpose of this protection specification is to define the procedures that must be followed during any and all phases of development activity in the immediate vicinity of designated protected trees.

Established, mature trees respond in a number of different ways to the disruption of their natural conditions. Change of grade within the root system area or near the root collar, damage to the bark of the trunk, soil compaction in the root system area, root system damage, or alteration of summer soil moisture levels may individually or collectively cause physiological stress leading to tree decline and death. The individual impacts of these activities may cause trees to immediately exhibit symptoms and begin to decline, but more commonly the decline process takes many years, with symptoms appearing slowly and over a period of time, and often taking a decade or more. Trees may not begin to show obvious signs of decline from the negative impacts of construction until many years after construction is completed.

It is critical to the long-term health of all protected trees that a defined protection program be established before beginning any construction activity where protected trees are found. Once incorporated at the design level, it is critical that developers, contractors, and construction personnel understand the importance of protection specifications. If not well protected during all construction activities, site trees may decline, become hazardous, and exhibit diminished aesthetics.

The following specifications are meant to be understood by property owners, utilized by project managers and project superintendents, including grading contractors, underground contractors, all equipment operators, construction personnel, and landscape contractors. These specifications are presented in a brief outline form to be applied to each residential site, and to each type of construction activity that occurs during development.

Questions which arise, or interpretation of guidelines as they apply to specific site activities, should always be referred to the designated project arborist as they occur.

TREE PROTECTION ZONE

1. The Tree Protection Zone (TPZ) represents the area around each tree, or group of trees, which must be protected at all times from encroachment of any kind.
2. No encroachment into the TPZ is allowed at any time without approval and observation from the project arborist.
3. The TPZ will be designated by the project arborist at a location determined to be adequate to ensure long term tree viability and health.
4. The TPZ, for this project, is considered as one radial foot of distance per inch of trunk diameter as measured at 24 inches above ground level. This area represents an average of one foot of canopy radius for each one inch of trunk diameter. This is a minimum protected area, and most trees will benefit from a larger area being protected. The method for establishing the TPZ herein supersedes the definition of a TPZ that is expressed in the Heritage Tree Ordinance.

TREE PROTECTION FENCING

1. Prior to initiating any construction activity on a construction project, including demolition or grading, temporary protective fencing should be installed at each site tree, or group of site trees. Fencing shall be located at the TPZ designated by the project.
2. The intention of temporary protection fencing is to prevent all the various activities common during construction from occurring inside the protected area. Any impact to the soil inside the protected area can have a negative impact on the roots present in the soil below, which in turn, can have a negative impact on tree health and vitality. Activities as simple as foot traffic from construction personnel can cause soil compaction which in turn damages roots and affects tree vitality.
3. Storage of building materials, parking equipment or vehicles, or general access should be eliminated from the Tree Protection Zone.
4. Fencing should be minimum 4' height at all locations, and should form a continuous barrier without entry points around all individual trees, or groups of trees. Barrier type fencing such as *Tensar* orange plastic fencing is cost effective, and chain link fencing is very effective. Any fencing system that adequately prevents entry can be utilized. The use of post and cable fencing is not acceptable, however.
5. Fencing shall be installed in a professional manner with steel fence posts (standard quality farm 'T' posts work well) placed no more than 8 feet on center. Fencing should be attached to each post at 5 locations with plastic electrical ties, metal tie wire, or flip tie.
6. Any required encroachment into the fenced TPZ should be approved and supervised by the project arborist. Approved TPZ encroachment may require additional mitigation or protection measures that will be determined by the project arborist at the time of the request.
7. Managers and General Contractors shall direct all subcontractors to keep equipment and personnel outside the fenced area at all times until project is complete, and shall instruct all personnel as to the purpose and importance of fencing and preservation.
8. Fencing shall be upright and functional at all times from start to completion of project. Fencing shall remain in place and not be moved or removed until all construction activities at the site are completed.
9. Tree protection fencing is the single most effective measure to ensure that trees remain healthy after construction is completed.

ROOT LOCATION

1. Protecting trees is primarily about preserving the root system, and the soil environment around the root system.

2. In established native tree species approximately 80% of the root system is located in the top 24 inches of the soil profile.
3. Minimizing impacts and changes in that top 24 inches of soil profile is the primary goal of tree protection.

GRADING AND TRENCHING

1. Any construction activity that necessitates soil excavation in the vicinity of preserved trees shall be avoided where possible, or be appropriately mitigated under the guidance of the project arborist. All contractors must be aware at all times that specific protection measures are defined.
2. The designated TPZ is defined around all site trees to be preserved and fences protect the designated areas. No grading or trenching is to occur within this defined area unless so designated by the Improvement Plan, and where designated shall occur under the direct supervision of the project arborist.
3. Trenching should be routed around the TPZ whenever possible. Where trenching has been designated within the TPZ, utilization of underground technology to bore, tunnel, or excavate with high-pressure air or water must be considered. Hand digging will be generally discouraged unless site conditions restrict the use of alternate technology.
4. All roots greater than one inch in diameter that are encountered shall be cleanly hand-cut as they are encountered in any trench or in any grading activity. Tearing of roots by equipment is not allowed. Mitigation treatment of pruned roots shall be specified by the project arborist as determined by the degree of root pruning, location of root pruning, and potential exposure to desiccation. No pruning paints or sealants shall be used on cut roots.
5. Where significant roots are encountered and necessarily pruned, mitigation measures such as supplemental irrigation and/or organic mulches may be specified by the project arborist to offset the reduction of root system capacity. Often times the number and size of roots encountered is difficult to predict until actual activities are under way. The project arborist should be involved during these activities to determine precise levels of impact and the mitigation measures that are necessary to offset the impacts.
6. Retaining walls are effective at holding grade changes outside the area of the TPZ and are recommended where necessary. Retaining walls shall be constructed in a manner that minimizes the amount of soil excavation necessary. Stacked rock walls, stacked masonry walls, post and beam or drilled pier construction styles will be necessary near or within a Tree Protection Zone.
7. Placement of fill soils is generally discouraged within the TPZ, but in some approved and carefully considered locations may cover up to 20% of the TPZ area. The species and condition of the specific tree, as well as site and soil conditions, and depth of fill, should all be considered. The type of fill soil and placement methods shall be specified by the project arborist.
8. Grade changes outside the TPZ, or those necessary in conjunction with retaining walls, shall be designed so that surface drainage is not diverted toward or around the trunk in any manner. Grade shall drain away from the trunk at a minimum of 2%. If grading toward the trunk is unavoidable, appropriate surface and/or subsurface drain facilities shall be installed so that water is effectively diverted away from trunk area.
9. Approved fill soils within the TPZ may also be mitigated using aerated gravel layers and/or perforated aeration tubing systems, as specified by the project arborist.
10. Tree roots will be expected to grow into areas of soil fill, and quality of imported soil must be considered. Ideally, fill soil should be site topsoil that closely matches the soil texture present within the root zone area. When import soil is utilized it must be the same or slightly coarser texture than existing site soil, should have a pH range comparable to site soils, and generally should have acceptable chemical properties for appropriate plant growth. A soil analysis is recommended prior to importation to evaluate import soil for these criteria. Subsoils are not suitable as fill soils inside TPZ areas.
11. Grade reduction within the designated TPZ is generally discouraged, and where approved, shall be conducted only after careful consideration and coordination with the project arborist.

12. Foundations of all types within the TPZ shall be constructed using design techniques that eliminate the need for trenching into natural grade. These techniques might include drilled piers, grade beams, bridges, or cantilevered structures. Building footprints should generally be outside the TPZ whenever possible.

RESIDENTIAL FOUNDATIONS

1. Residential foundations should ideally not be placed within the TPZ. It is often necessary to encroach into the TPZ however, based on site constraints, setbacks, and density of trees.
2. Where encroachment is necessary the use of grade beam/drilled pier type foundations will reduce the impacts often associated with foundation construction by eliminating the need for a continuous foundation trench. Continuous foundation trenches often sever a significant number of roots and lead directly to tree decline.

EXISTING DRAINAGE PATTERNS

The location and density of native trees on many sites may be directly associated with the presence of naturally occurring water in the form of surface drainage and ephemeral waterways. Project design, especially drainage components, should take into consideration that these trees may begin a slow decline if this natural association with water is eliminated or significantly altered.

TREE PRUNING AND TREATMENTS

1. All recommendations for pruning or other treatments should be completed prior to the start of grading on the lot. This timing will facilitate optimum logistics and access, and reduce costs compared to pruning at the completion of construction.
2. All pruning shall be conducted in conformance with International Society of Arboriculture pruning standards, and all pruning should occur by, or under the direct supervision of, an arborist certified by the International Society of Arboriculture.
3. Significant removal of living wood from native trees is discouraged as it may cause distress and decline. Focus pruning on the individual needs of each particular tree with a priority on removing dead wood, unsound wood, and limbs that encroach into construction areas.
4. Significant pruning for views and topping of any kind is discouraged.

MULCHING

1. Trees will benefit significantly from the application of a 4-inch layer of chipped bark mulch over the soil surface within the greater Tree Protection Zone. Ideal mulch material is a chipped bark containing a wide range of particle sizes. Bark mulches composed of shredded redwood, bark screened for uniformity of size, chipped lumber, or dyed chips will not function as beneficially.
2. Rock, gravel, and other mineral mulches are generally discouraged due to their minimal benefit.
3. Chipped bark mulch is preferred from on-site tree chipping procedures to limit the opportunity of importing diseases from off-site trees.
4. Application of chipped bark mulch ideally occurs prior to installation of tree protection fencing, and it should be supplemented every 2 to 3 years with additional mulch material. Bark mulches decompose over time and require supplementation.

CONSTRUCTION CAUSED TREE DAMAGE

1. Any form of tree damage which occurs during the demolition, grading, or construction process should be evaluated by the project arborist. Specific mitigation measures will be developed to compensate for, or correct the damage.
2. Measures may include, but are not limited to, the following:

- •Pruning to remove damaged limbs or wood
- •Bark scoring to remove damaged bark and promote callous formation
- •Alleviation of compaction by lightly scarifying the soil surface
- •Installation of a specific mulching material
- •Supplemental irrigation during the growing season for up to 5 years
- •treatment with specific amendments to promote health, vigor, or root growth
- •Vertical mulching or soil fracturing to promote root growth
- •Periodic post-construction monitoring at the developer's expense
- •Tree replacement if long term survival is not expected

FERTILIZATION

1. Native trees generally do not require supplemental fertilization unless exhibiting a deficiency symptom. Following completion of construction any tree that exhibits symptoms of a specific nutrient deficiency shall be fertilized to compensate for the deficiency. Soil or tissue analysis may be required to identify the specific deficiency present.
2. Distressed trees, or trees damaged by construction in any way, may also be detrimentally affected by supplemental fertilization. The decision to fertilize, and with what fertilizers, should be made by the project arborist based on conditions and appearance observed at the completion of the project.

PEST CONTROL

A close visual examination for tree pests shall be conducted by the pruning contractor as they complete recommended pruning procedures. If a serious infestation is present not apparent from ground observation, then pest control measures may be considered. However, the simple presence of tree pests does not warrant the use of chemical pesticides. Only a serious infestation, capable of causing tree decline, would warrant pesticide use. The use of organic sprays or pesticidal soaps is the preferred method for treating any serious tree pest infestation.

WEED CONTROL

No specific measures are recommended for weed control, and the presence of weeds should not be considered problematic in relation to continued tree health. However, use of contact weed killers and pre-emergent weed killers are generally not recommended due to their potential for root system damage if improperly applied.

DISEASE CONTROL

All disease control measures should be based on observation of actual conditions in the tree canopy.

PLANTING UNDER EXISTING TREES

1. Installation of turf, or other plant types that require overhead irrigation, in the Tree Protection Zone of established native trees has the potential to initiate serious disease and is discouraged. If planting beneath native trees is desired for aesthetic or functional purposes, the use of drought adapted, woody or perennial species is most appropriate.
2. Species should be selected for their ability to survive with minimal or no water through the summer months after the initial establishment period.
3. Only drip irrigation should be utilized within the canopy TPZ to minimize summer water in the root zone.
4. Keep new plantings and irrigation a minimum of 8 feet from the trunk of any preserved tree.
5. Many non-native trees will tolerate summer irrigation well and suitable landscape planting and irrigation may actually be beneficial.

SUPPLEMENTAL IRRIGATION

1. Supplemental irrigation shall be provided to all trees impacted within the CRZ, under the direction of the project arborist.
2. Supplemental irrigation shall be provided to any tree deemed necessary by the project arborist, under the direction of the project arborist.

HERITAGE TREE SPECIFIC GUIDELINES

1. Any work occurring within the TPZ of a heritage tree shall be performed under the observation of the project arborist in accordance with this section.
2. Procedure (to be implemented in the order presented):
    a) Prune tree as necessary for safety, health and structure, in accordance with the guidelines contained herein. Perform pruning under the supervision of an arborist certified by the International Society of Arboriculture. Do not remove living wood unless directed to do so by the certified arborist.
    b) Inspect the tree for pest infestation. Notify the certified arborist if significant pest presence
    c) Apply a four inch layer of chipped bark mulch, containing a wide range of particle sizes, preferably from on-site tree chipping procedures, over the soil surface within the greater TPZ. Do not use mineral mulches.
    d) Install contiguous temporary protection fencing, at a minimum height of 4', at or beyond the TPZ, unless work is shown on the approved improvement plan to occur within the TPZ. In this case, locate the fencing as close to the limit of work as possible to create maximum protection. Do not store materials within the fenced area. Tensar orange plastic fencing and chain link fencing are preferred materials; do not use post and cable fencing. Encroaching into the fenced area shall not occur without the approval and supervision of the project arborist.
    e) Place 2' x 3' signage on the tree protection fencing at an interval of 20'. Signage shall indicate that tree has Heritage status and fences are not to be altered without the approval and supervision of the project arborist.
    f) Coordinate with the certified arborist to verify if supplemental irrigation is necessary based on the work shown on the approved improvement plan.
    g) If grading or trenching is shown on the approved improvement plan to occur within the TPZ (but outside the fencing), perform it under the direct supervision of the certified arborist. Do not tear roots; cut roots cleanly by hand.
    h) Coordinate with the project arborist to inspect each heritage tree at a time interval of not more than 30 days. The arborist will prepare a brief report after each inspection and provide to the City of Healdsburg.

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
1	Quercus agrifolia	Coast Live Oak	15	15	21	24	4	4	15	3.8	Yes	No	None	None at this time
2	Quercus agrifolia	Coast Live Oak	7+10	12	25	20	4	3	12	3.0	Yes	No	Significant	Protection Measures
3	Quercus agrifolia	Coast Live Oak	8	8	21	25	4	3	8	2.0	Yes	No	Significant	Protection Measures
4	Quercus agrifolia	Coast Live Oak	15+7	17	25	42	4	4	17	4.3	Yes	No	LOT #1	None at this time
5	Quercus agrifolia	Coast Live Oak	18	18	24	25	4	3	18	4.5	Yes	No	None	None at this time
6	Quercus agrifolia	Coast Live Oak	8+8	11	22	20	4	4	11	2.8	Yes	No	LOT #1	None at this time
7	Quercus agrifolia	Coast Live Oak	16	16	24	32	4	4	16	4.0	Yes	No	LOT #1	None at this time
8	Quercus agrifolia	Coast Live Oak	18	18	24	30	4	4	18	4.5	Yes	No	LOT #1	None at this time
9	Quercus agrifolia	Coast Live Oak	13	13	25	30	4	4	13	3.3	Yes	No	LOT #1	None at this time
10	Quercus agrifolia	Coast Live Oak	14	14	20	18	4	3	14	3.5	Yes	No	None	None at this time
11	Quercus lobata	Valley Oak	11	11	20	25	4	3	11	2.8	Yes	No	None	None at this time
12	Quercus agrifolia	Coast Live Oak	16	16	22	24	4	4	16	4.0	Yes	No	LOT #1	None at this time
13	Quercus agrifolia	Coast Live Oak	18	18	25	32	4	3	18	4.5	Yes	No	Significant	Remove for Lot 1/2 Access
14	Quercus lobata	Valley Oak	13	13	25	30	4	3	13	3.3	Yes	No	Significant	Remove for Lot 1/2 Access
15	Quercus garryana	Oregon Oak	10	10	22	24	4	4	10	2.5	Yes	No	LOT #2	None at this time
16	Quercus agrifolia	Coast Live Oak	11	11	18	24	4	4	11	2.8	Yes	No	LOT #2	None at this time
17	Quercus agrifolia	Coast Live Oak	6	6	15	14	4	3	6	1.5	Yes	No	None	None at this time
18	Quercus agrifolia	Coast Live Oak	10	10	20	25	4	3	10	2.5	Yes	No	None	None at this time
19	Quercus agrifolia	Coast Live Oak	15+15	21	25	34	4	3	21	5.3	Yes	No	None	None at this time
20	Quercus agrifolia	Coast Live Oak	18	18	25	32	4	3	18	4.5	Yes	No	None	None at this time
21	Quercus agrifolia	Coast Live Oak	9+9	13	20	18	4	3	13	3.3	Yes	No	None	None at this time
22	Quercus agrifolia	Coast Live Oak	7	7	21	24	4	4	7	1.8	Yes	No	None	None at this time
22	Quercus agrifolia	Coast Live Oak	21	21	25	32	4	3	21	5.3	Yes	No	None	None at this time
23	Quercus agrifolia	Coast Live Oak	9	9	24	24	4	3	9	2.3	Yes	No	None	None at this time
24	Quercus garryana	Oregon Oak	6	6	14	12	4	4	6	1.5	Yes	No	LOT #2	None at this time
25	Quercus garryana	Oregon Oak	7	7	22	12	4	4	7	1.8	Yes	No	LOT #2	None at this time
26	Quercus garryana	Oregon Oak	8	8	22	18	4	4	8	2.0	Yes	No	LOT #2	None at this time
27	Quercus garryana	Oregon Oak	9	9	22	18	4	4	9	2.3	Yes	No	LOT #2	None at this time
28	Quercus garryana	Oregon Oak	8	8	20	18	4	4	8	2.0	Yes	No	LOT #2	None at this time
29	Quercus agrifolia	Coast Live Oak	9	9	22	18	4	3	9	2.3	Yes	No	None	None at this time
30	Quercus agrifolia	Coast Live Oak	9	9	22	20	4	3	9	2.3	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
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Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
31	Quercus agrifolia	Coast Live Oak	6	6	20	14	4	3	6	1.5	Yes	No	None	None at this time
32	Quercus agrifolia	Coast Live Oak	9	9	22	20	4	3	9	2.3	Yes	No	None	None at this time
33	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
34	Quercus agrifolia	Coast Live Oak	7	7	22	16	4	3	7	1.8	Yes	No	None	None at this time
35	Quercus agrifolia	Coast Live Oak	25+9	27	40	42	4	3	27	6.8	Yes	No	None	None at this time
36	Quercus agrifolia	Coast Live Oak	18	18	30	30	4	3	18	4.5	Yes	No	None	None at this time
37	Quercus agrifolia	Coast Live Oak	13	13	30	25	4	3	13	3.3	Yes	No	None	None at this time
38	Quercus agrifolia	Coast Live Oak	9	9	22	20	4	3	9	2.3	Yes	No	None	None at this time
39	Quercus agrifolia	Coast Live Oak	8	8	25	24	4	3	8	2.0	Yes	No	None	None at this time
40	Quercus agrifolia	Coast Live Oak	13	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
41	Quercus agrifolia	Coast Live Oak	9	9	20	26	4	3		2.3	Yes	No	LOT #3	None at this time
42	Quercus agrifolia	Coast Live Oak	15	15	25	30	4	4	15	3.8	Yes	No	LOT #3	None at this time
43	Quercus agrifolia	Coast Live Oak	7	7	25	24	4	3	7	1.8	Yes	No	LOT #3	None at this time
44	Quercus agrifolia	Coast Live Oak	8	8	14	18	3	4	8	2.0	Yes	No	LOT #3	None at this time
45	Quercus agrifolia	Coast Live Oak	8	8	15	24	4	4	8	2.0	Yes	No	None	None at this time
46	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	LOT #3	None at this time
47	Quercus agrifolia	Coast Live Oak	14	14	25	30	4	4	14	3.5	Yes	No	LOT #3	None at this time
48	Quercus agrifolia	Coast Live Oak	6	6	14	16	2	2	6	1.5	No	No	Low	Protection Measures
49	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	LOT #3	None at this time
50	Quercus agrifolia	Coast Live Oak	7	7	14	18	4	3	7	1.8	Yes	No	None	None at this time
51	Quercus agrifolia	Coast Live Oak	6	6	20	15	4	3	6	1.5	Yes	No	None	None at this time
52	Quercus lobata	Valley Oak	14	14	30	25	4	3	14	3.5	Yes	No	None	None at this time
53	Quercus agrifolia	Coast Live Oak	8+13	13	25	30	4	3	13	3.3	Yes	No	None	None at this time
54	Quercus agrifolia	Coast Live Oak	7+8+8+7+4+3	16	22	25	4	3	16	4.0	Yes	No	None	None at this time
55	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
56	Quercus agrifolia	Coast Live Oak	8	8	20	20	4	3	8	2.0	Yes	No	None	None at this time
57	Quercus agrifolia	Coast Live Oak	7	7	20	20	4	3	7	1.8	Yes	No	None	None at this time
58	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
59	Quercus lobata	Valley Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
60	Quercus agrifolia	Coast Live Oak	13	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
61	Quercus agrifolia	Coast Live Oak	18	18	30	40	4	3	18	4.5	Yes	No	None	None at this time
62	Quercus agrifolia	Coast Live Oak	13	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
63	Quercus agrifolia	Coast Live Oak	8	8	21	16	3	4	8	2.0	Yes	No	LOT #6	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
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Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
64	Quercus agrifolia	Coast Live Oak	14+11	18	24	30	3	4	18	4.5	Yes	No	LOT #6	None at this time
65	Quercus agrifolia	Coast Live Oak	13	13	22	16	4	4	13	3.3	Yes	No	LOT #6	None at this time
66	Quercus agrifolia	Coast Live Oak	8	8	10	12	3	3	8	2.0	Yes	No	LOT #6	None at this time
67	Quercus agrifolia	Coast Live Oak	17	17	24	24	3	4	17	4.3	Yes	No	LOT #6	None at this time
68	Quercus agrifolia	Coast Live Oak	7	7	20	44	10	4	7	1.8	Yes	No	LOT #6	None at this time
69	Quercus agrifolia	Coast Live Oak	12	12	20	24	4	4	12	3.0	Yes	No	LOT #6	None at this time
70	Quercus agrifolia	Coast Live Oak	6	6	20	18	4	4	6	1.5	Yes	No	LOT #6	None at this time
71	Quercus agrifolia	Coast Live Oak	6	6	18	20	4	4	6	1.5	Yes	No	LOT #6	None at this time
72	Quercus agrifolia	Coast Live Oak	9	9	16	8	3	4	9	2.3	Yes	No	LOT #6	None at this time
73	Quercus agrifolia	Coast Live Oak	7	7	18	20	4	4	7	1.8	Yes	No	LOT #6	None at this time
74	Quercus agrifolia	Coast Live Oak	8+4	9	18	24	3	4	9	2.3	Yes	No	LOT #6	None at this time
75	Quercus agrifolia	Coast Live Oak	4+4	6	15	18	3	4	6	1.5	Yes	No	LOT #6	None at this time
76	Quercus agrifolia	Coast Live Oak	11	11	16	30	4	4	11	2.8	Yes	No	LOT #6	None at this time
77	Quercus agrifolia	Coast Live Oak	8	8	22	24	4	4	8	2.0	Yes	No	LOT #6	None at this time
78	Quercus agrifolia	Coast Live Oak	9	9	18	10	2	4	9	2.3	No	No	LOT #6	None at this time
79	Quercus agrifolia	Coast Live Oak	7	7	21	24	4	4	7	1.8	Yes	No	LOT #6	None at this time
80	Quercus agrifolia	Coast Live Oak	8	8	18	20	3	4	8	2.0	Yes	No	LOT #6	None at this time
81	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	LOT #6	None at this time
82	Quercus agrifolia	Coast Live Oak	7	7	15	16	4	3	7	1.8	Yes	No	LOT #6	None at this time
83	Quercus agrifolia	Coast Live Oak	9	9	20	20	4	4	9	2.3	Yes	No	LOT #6	None at this time
84	Quercus agrifolia	Coast Live Oak	8+3	9	18	24	3	4	9	2.3	Yes	No	LOT #6	None at this time
85	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
86	Quercus agrifolia	Coast Live Oak	8+4	9	20	20	4	3	9	2.3	Yes	No	None	None at this time
87	Quercus agrifolia	Coast Live Oak	11	11	25	25	4	3	11	2.8	Yes	No	None	None at this time
88	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
89	Quercus agrifolia	Coast Live Oak	16+15	22	40	50	4	3	22	5.5	Yes	No	None	None at this time
90	Quercus agrifolia	Coast Live Oak	8	8	21	24	4	3	8	2.0	Yes	No	In Road	Removal for Lot 3/4 Access
91	Quercus agrifolia	Coast Live Oak	8	8	19	24	4	3	8	2.0	Yes	No	In Road	Removal for Lot 3/4 Access
92	Quercus agrifolia	Coast Live Oak	9	9	21	24	4	3	9	2.3	Yes	No	In Road	Removal for Lot 3/4 Access
93	Quercus agrifolia	Coast Live Oak	19	19	35	30	4	3	19	4.8	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
94	Quercus agrifolia	Coast Live Oak	13	13	35	24	4	3	13	3.3	Yes	No	LOT #5	None at this time
95	Quercus lobata	Valley Oak	12	12	30	30	4	3	12	3.0	Yes	No	LOT #5	None at this time
96	Quercus agrifolia	Coast Live Oak	10+5	11	30	28	4	3	11	2.8	Yes	No	LOT #5	None at this time
97	Quercus agrifolia	Coast Live Oak	15	15	35	38	4	3	15	3.8	Yes	No	LOT #5	None at this time
98	Quercus agrifolia	Coast Live Oak	14+12	18	35	30	4	3	18	4.5	Yes	No	None	None at this time
99	Quercus agrifolia	Coast Live Oak	14+20	24	40	50	4	3	24	6.0	Yes	No	Low	Protection Measures
100	Quercus agrifolia	Coast Live Oak	6	6	22	24	4	3	6	1.5	Yes	No	None	None at this time
101	Quercus agrifolia	Coast Live Oak	8	8	25	28	4	3	8	2.0	Yes	No	LOT #5	None at this time
102	Quercus agrifolia	Coast Live Oak	18	18	30	30	4	3	18	4.5	Yes	No	None	None at this time
103	Quercus agrifolia	Coast Live Oak	11	11	30	30	4	3	11	2.8	Yes	No	None	None at this time
104	Quercus agrifolia	Coast Live Oak	11	11	30	30	4	3	11	2.8	Yes	No	LOT #5	None at this time
105	Quercus agrifolia	Coast Live Oak	7+5	9	25	28	4	3	9	2.3	Yes	No	LOT #5	None at this time
106	Quercus agrifolia	Coast Live Oak	6	6	20	24	4	3	6	1.5	Yes	No	LOT #5	None at this time
107	Quercus agrifolia	Coast Live Oak	10	10	25	30	4	3	10	2.5	Yes	No	LOT #5	None at this time
108	Quercus agrifolia	Coast Live Oak	11	11	30	30	4	3	11	2.8	Yes	No	LOT #5	None at this time
109	Quercus agrifolia	Coast Live Oak	6	6	20	25	4	3	6	1.5	Yes	No	LOT #5	None at this time
110	Quercus agrifolia	Coast Live Oak	14	14	36	30	4	3	14	3.5	Yes	No	In Road	Remove for Main Road
111	Quercus agrifolia	Coast Live Oak	12	12	30	30	4	3	12	3.0	Yes	No	None	None at this time
112	Quercus agrifolia	Coast Live Oak	10	10	30	30	4	3	10	2.5	Yes	No	Significant	Remove for Main Road
113	Quercus lobata	Valley Oak	7	7	22	25	4	3	7	1.8	Yes	No	In Road	Remove for Main Road
114	Quercus agrifolia	Coast Live Oak	8	8	25	28	4	3	8	2.0	Yes	No	LOT #5	None at this time
115	Quercus agrifolia	Coast Live Oak	12+4	9	25	28	4	3	9	2.3	Yes	No	LOT #5	None at this time
116	Quercus agrifolia	Coast Live Oak	6	6	20	25	4	3	6	1.5	Yes	No	LOT #5	None at this time
117	Quercus agrifolia	Coast Live Oak	8	8	25	30	4	3	8	2.0	Yes	No	LOT #5	None at this time
118	Quercus agrifolia	Coast Live Oak	12	12	35	40	4	3	12	3.0	Yes	No	LOT #5	None at this time
119	Quercus agrifolia	Coast Live Oak	10+11+7	16	40	45	4	3	16	4.0	Yes	No	LOT #5	None at this time
120	Quercus agrifolia	Coast Live Oak	12	12	35	40	4	3	12	3.0	Yes	No	In Road	Remove for Main Road
121	Quercus agrifolia	Coast Live Oak	12	12	35	40	4	3	12	3.0	Yes	No	In Road	Removal for Lot 3/4 Access
122	Quercus lobata	Valley Oak	7	7	21	24	4	3	7	1.8	Yes	No	Significant	Remove for Lot 1/2 Access
123	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
124	Quercus agrifolia	Coast Live Oak	7	7	22	38	4	3	7	1.8	Yes	No	None	None at this time
125	Quercus agrifolia	Coast Live Oak	7+6	9	30	40	4	3	9	2.3	Yes	No	Significant	Remove for Main Road

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
126	Quercus agrifolia	Coast Live Oak	9	9	30	40	4	3	9	2.3	Yes	No	None	None at this time
127	Prunus domestica	Wild Plum	10+5+5	12	30	28	4	3	12	3.0	Yes	No	In Road	Remove for Main Road
128	Quercus lobata	Valley Oak	7	7	25	24	4	3	7	1.8	Yes	No	None	None at this time
129	Quercus agrifolia	Coast Live Oak	24	24	40	50	4	3	24	6.0	Yes	No	None	None at this time
130	Quercus agrifolia	Coast Live Oak	10	10	30	30	4	3	10	2.5	Yes	No	None	None at this time
131	Quercus agrifolia	Coast Live Oak	10	10	35	24	4	3	10	2.5	Yes	No	None	None at this time
132	Quercus agrifolia	Coast Live Oak	20	20	40	50	4	3	20	5.0	Yes	No	None	None at this time
133	Quercus agrifolia	Coast Live Oak	10	10	35	24	4	3	10	2.5	Yes	No	None	None at this time
134	Quercus agrifolia	Coast Live Oak	19	19	20	30	4	4	19	4.8	Yes	No	LOT #7	None at this time
135	Quercus agrifolia	Coast Live Oak	10	18	18	4	4	10	30	4.5	Yes	No	LOT #7	None at this time
136	Quercus agrifolia	Coast Live Oak	6	6	15	12	4	4	6	1.5	Yes	No	None	None at this time
137	Prunus cerasifera	Wild Plum	11+6	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
138	Quercus agrifolia	Coast Live Oak	18+20+14	30	40	60	4	3	30	7.5	Yes	No	None	None at this time
139	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
140	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
141	Quercus agrifolia	Coast Live Oak	13	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
142	Quercus agrifolia	Coast Live Oak	8	8	20	2025	4	3	8	2.0	Yes	No	None	None at this time
143	Quercus agrifolia	Coast Live Oak	9+6	11	24	40	4	3	11	2.8	Yes	No	None	None at this time
145	Quercus agrifolia	Coast Live Oak	13	13	26	40	4	3	13	3.3	Yes	No	None	None at this time
146	Quercus agrifolia	Coast Live Oak	6+8+12	16	35	45	4	3	16	4.0	Yes	No	None	None at this time
147	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	2	3.0	Yes	No	None	None at this time
148	Quercus agrifolia	Coast Live Oak	7	7	15	18	4	3	7	1.8	Yes	No	None	None at this time
149	Quercus agrifolia	Coast Live Oak	7+18	25	40	60	4	3	25	6.3	Yes	No	None	None at this time
150	Quercus agrifolia	Coast Live Oak	7	7	15	18	4	3	7	1.8	Yes	No	None	None at this time
151	Quercus agrifolia	Coast Live Oak	11	11	25	40	4	3	11	2.8	Yes	No	None	None at this time
152	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
153	Quercus agrifolia	Coast Live Oak	7	7	15	18	4	3	7	1.8	Yes	No	None	None at this time
154	Quercus agrifolia	Coast Live Oak	10	10	25	40	4	3	10	2.5	Yes	No	None	None at this time
155	Quercus agrifolia	Coast Live Oak	17	17	25	40	4	3	17	4.3	Yes	No	None	None at this time
156	Quercus lobata	Valley Oak	18+16	24	35	45	4	3	24	6.0	Yes	No	None	None at this time
158	Quercus agrifolia	Coast Live Oak	21	21	40	50	4	3	21	5.3	Yes	No	Significant	Remove for Main Road
159	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
160	Quercus lobata	Valley Oak	21	21	40	50	4	3	21	5.3	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
161	Quercus lobata	Valley Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
162	Quercus lobata	Valley Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
163	Quercus agrifolia	Coast Live Oak	10+24	26	40	50	4	3	26	6.5	Yes	No	None	None at this time
164	Quercus agrifolia	Coast Live Oak	6+7+8	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
165	Umbellularia californica	Bay Laurel	9+10	13	25	40	4	3	13	3.3	Yes	No	Pyrophytic	Removal of Fuel
166	Quercus lobata	Valley Oak	16	16	25	30	4	3	16	4.0	Yes	No	None	None at this time
167	Quercus agrifolia	Coast Live Oak	7	7	15	18	4	3	7	1.8	Yes	No	None	None at this time
168	Quercus agrifolia	Coast Live Oak	7+18	19	40	50	4	3	19	4.8	Yes	No	None	None at this time
170	Quercus agrifolia	Coast Live Oak	10	10	35	26	4	3	10	2.5	Yes	No	Significant	Protection Measures
171	Quercus agrifolia	Coast Live Oak	12+12	17	40	50	4	3	17	4.3	Yes	No	None	None at this time
172	Quercus agrifolia	Coast Live Oak	10	10	35	25	4	3	10	2.5	Yes	No	None	None at this time
173	Quercus agrifolia	Coast Live Oak	25	25	40	50	4	3	25	6.3	Yes	No	Significant	Protection Measures
174	Quercus agrifolia	Coast Live Oak	23	23	40	45	4	3	23	5.8	Yes	No	Significant	Protection Measures
175	Quercus agrifolia	Coast Live Oak	11	11	35	25	4	3	11	2.8	Yes	No	None	None at this time
176	Quercus agrifolia	Coast Live Oak	12	12	25	40	4	3	2	3.0	Yes	No	None	None at this time
177	Quercus agrifolia	Coast Live Oak	6+10+6	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
178	Quercus lobata	Valley Oak	7	7	20	20	4	3	7	1.8	Yes	No	None	None at this time
179	Quercus agrifolia	Coast Live Oak	23	23	40	45	4	3	23	5.8	Yes	No	Moderate	Protection Measures
181	Quercus agrifolia	Coast Live Oak	10+16	19	35	50	4	3	19	4.8	Yes	No	Moderate	Protection Measures
182	Quercus agrifolia	Coast Live Oak	18	18	40	50	4	3	18	4.5	Yes	No	In Road	Remove for Main Road
183	Quercus agrifolia	Coast Live Oak	10	10	35	25	4	3	10	2.5	Yes	No	In Road	Remove for Main Road
184	Quercus agrifolia	Coast Live Oak	13	13	25	40	4	3	13	3.3	Yes	No	Significant	Remove for Main Road
185	Quercus agrifolia	Coast Live Oak	8	8	20	20	4	3	8	2.0	Yes	No	Significant	Remove for Main Road
186	Quercus agrifolia	Coast Live Oak	7+8	11	35	25	4	3	11	2.8	Yes	No	Significant	Protection Measures
187	Quercus agrifolia	Coast Live Oak	18	18	35	40	4	3	18	4.5	Yes	No	Significant	Protection Measures
189	Quercus agrifolia	Coast Live Oak	12+12	17	25	30	4	3	17	4.3	Yes	No	Moderate	Remove for Main Road
190	Quercus agrifolia	Coast Live Oak	18+12+21	30	40	60	4	3	30	7.5	Yes	No	Moderate	Protection Measures
191	Quercus agrifolia	Coast Live Oak	25	25	30	50	4	3	25	6.3	Yes	No	Significant	Remove for Main Road
192	Quercus agrifolia	Coast Live Oak	8+12+12+14+18	30	30	60	4	3	30	7.5	Yes	No	In Road	Remove for Main Road
193	Quercus agrifolia	Coast Live Oak	12	12	34	40	4	3	12	3.0	Yes	No	Significant	Protection Measures
194	Quercus agrifolia	Coast Live Oak	13	13	35	40	4	3	13	3.3	Yes	No	Significant	Protection Measures
195	Quercus agrifolia	Coast Live Oak	8+12+12+14+18	30	40	60	4	3	30	7.5	Yes	No	Significant	Protection Measures
196	Quercus agrifolia	Coast Live Oak	18	18	38	50	4	3	18	4.5	Yes	No	Moderate	Protection Measures

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
197	Quercus agrifolia	Coast Live Oak	19	19	35	40	4	3	19	4.8	Yes	No	Significant	Remove for Main Road
198	Quercus agrifolia	Coast Live Oak	6	6	35		4	3	6	1.5	Yes	No	Significant	Remove for Main Road
199	Quercus kelloggii	Black Oak	11+11	16	35		4	3	16	4.0	Yes	No	Significant	Remove for Main Road
200	Quercus agrifolia	Coast Live Oak	7	7	25	24	4	3	7	1.8	Yes	No	None	None at this time
201	Quercus agrifolia	Coast Live Oak	13	13	35	40	4	3	13	3.3	Yes	No	None	None at this time
202	Quercus kelloggii	Black Oak	12	12	35	35	4	3	12	3.0	Yes	No	None	None at this time
203	Quercus agrifolia	Coast Live Oak	11	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
204	Quercus agrifolia	Coast Live Oak	8	13	25	40	4	3	13	3.3	Yes	No	None	None at this time
205	Quercus kelloggii	Black Oak	6	12	25	40	4	3	13	3.0	Yes	No	None	None at this time
206	Quercus agrifolia	Coast Live Oak	6	11	25	40	4	3	12	2.8	Yes	No	None	None at this time
207	Quercus agrifolia	Coast Live Oak	9	8	20	20	4	3	11	2.0	Yes	No	None	None at this time
208	Quercus agrifolia	Coast Live Oak	6	6	35		4	3	6	1.5	Yes	No	None	None at this time
209	Quercus agrifolia	Coast Live Oak	6	6	18	20	4	3	6	1.5	Yes	No	None	None at this time
210	Quercus agrifolia	Coast Live Oak	23	23	35	50	4	3	23	5.8	Yes	No	None	None at this time
211	Quercus agrifolia	Coast Live Oak	7	7	20	20	4	3	7	1.8	Yes	No	None	None at this time
212	Quercus agrifolia	Coast Live Oak	6	6	15	20	4	3	6	1.5	Yes	No	None	None at this time
213	Quercus agrifolia	Coast Live Oak	12	12	24	40	4	3	12	3.0	Yes	No	Moderate	Protection Measures
214	Quercus agrifolia	Coast Live Oak	14	14	30	25	4	3	14	3.5	Yes	No	None	None at this time
215	Quercus agrifolia	Coast Live Oak	12+9	15	30	45	4	3	15	3.8	Yes	No	None	None at this time
216	Quercus kelloggii	Black Oak	7+8+9	14	30	45	4	3	14	3.5	Yes	No	None	None at this time
217	Quercus kelloggii	Black Oak	10	10	35	28	4	3	10	2.5	Yes	No	None	None at this time
219	Quercus kelloggii	Black Oak	12+18	22	30	50	4	3	22	5.5	Yes	No	None	None at this time
221	Quercus agrifolia	Coast Live Oak	15+15+14	25	30	55	4	3	25	6.3	Yes	No	In Road	Remove for Main Road
222	Quercus lobata	Valley Oak	12	12	30	40	4	3	12	3.0	Yes	No	Significant	Protection Measures
223	Quercus agrifolia	Coast Live Oak	11+10	15	30	45	4	3	15	3.8	Yes	No	None	None at this time
224	Umbellularia californica	Bay Laurel	6+5+4+3+3+3	10	35	40	4	3	10	2.5	Yes	No	Pyrophytic	Removal of Fuel
225	Quercus kelloggii	Black Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
226	Quercus kelloggii	Black Oak	14	14	26	45	4	3	14	3.5	Yes	No	None	None at this time
227	Quercus agrifolia	Coast Live Oak	9	9	14	20	4	3	9	2.3	Yes	No	None	None at this time
228	Quercus lobata	Valley Oak	12	12	25	40	4	3	12	3.0	Yes	No	None	None at this time
230	Quercus agrifolia	Coast Live Oak	6	6	14	18	4	3	6	1.5	Yes	No	None	None at this time
231	Quercus agrifolia	Coast Live Oak	15+19	24	24	60	4	3	24	6.0	Yes	No	Low	Protection Measures
232	Quercus agrifolia	Coast Live Oak	16+18+12	27	30	60	4	3	27	6.8	Yes	No	Significant	Protection Measures

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
233	Quercus agrifolia	Coast Live Oak	6	6	15	18	4	3	6	1.5	Yes	No	None	None at this time
234	Quercus agrifolia	Coast Live Oak	16	16	25	30	4	3	16	4.0	Yes	No	In Road	Remove for Main Road
235	Quercus agrifolia	Coast Live Oak	13	13	35	30	4	3	13	3.3	Yes	No	In Road	Remove for Main Road
236	Quercus lobata	Valley Oak	6	6	15	18	4	3	6	1.5	Yes	No	None	None at this time
237	Quercus kelloggii	Black Oak	6+6+12	15	25	30	4	3	15	3.8	Yes	No	None	None at this time
238	Quercus agrifolia	Coast Live Oak	6+9	11	35	30	4	3	11	2.8	Yes	No	None	None at this time
239	Quercus agrifolia	Coast Live Oak	10	10	35	30	4	3	10	2.5	Yes	No	None	None at this time
240	Quercus agrifolia	Coast Live Oak	6+11	13	25	30	4	3	13	3.3	Yes	No	None	None at this time
241	Quercus agrifolia	Coast Live Oak	8+10+11+12+12	24	40	50	4	3	24	6.0	Yes	No	Low	Protection Measures
242	Quercus agrifolia	Coast Live Oak	8	8	20	18	4	3	8	2.0	Yes	No	None	None at this time
243	Quercus agrifolia	Coast Live Oak	12	12	25	30	4	3	12	3.0	Yes	No	None	None at this time
244	Quercus agrifolia	Coast Live Oak	13	13	25	30	4	3	13	3.3	Yes	No	None	None at this time
245	Quercus agrifolia	Coast Live Oak	12	12	25	30	4	3	12	3.0	Yes	No	None	None at this time
246	Quercus agrifolia	Coast Live Oak	16	16	25	35	4	3	16	4.0	Yes	No	None	None at this time
247	Quercus kelloggii	Black Oak	12	12	25	30	4	3	12	3.0	Yes	No	None	None at this time
248	Quercus agrifolia	Coast Live Oak	4+4+5+12	14	24	44	4	3	14	3.5	Yes	No	None	None at this time
249	Quercus agrifolia	Coast Live Oak	8	8	20	20	4	3	8	2.0	Yes	No	Significant	Remove for Main Road
250	Quercus agrifolia	Coast Live Oak	12	12	25	30	4	3	12	3.0	Yes	No	Significant	Remove for Main Road
251	Quercus agrifolia	Coast Live Oak	7	7	20	20	4	3	12	1.8	Yes	No	Significant	Remove for Main Road
252	Quercus kelloggii	Black Oak	15	15	25	30	4	3	7	3.8	Yes	No	Significant	Remove for Main Road
253	Quercus agrifolia	Coast Live Oak	6+7	9	30	24	4	3	9	2.3	Yes	No	Significant	Remove for Main Road
254	Quercus agrifolia	Coast Live Oak	10	10	30	24	4	3	9	2.5	Yes	No	None	None at this time
255	Quercus kelloggii	Black Oak	12	12	25	30	4	3	12	3.0	Yes	No	None	None at this time
256	Quercus kelloggii	Black Oak	6+5	8	30	24	4	3	8	2.0	Yes	No	None	None at this time
257	Quercus kelloggii	Black Oak	12+13	18	30	40	4	3	18	4.5	Yes	No	Moderate	Protection Measures
258	Quercus agrifolia	Coast Live Oak	11	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
259	Quercus agrifolia	Coast Live Oak	13	13	25	30	4	3	13	3.3	Yes	No	None	None at this time
260	Quercus agrifolia	Coast Live Oak	7	7	20	20	4	3	7	1.8	Yes	No	None	None at this time
261	Quercus agrifolia	Coast Live Oak	11	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
262	Umbellularia californica	Bay Laurel	10+18	21	40	50	4	3	21	5.3	Yes	No	Pyrophytic	Removal of Fuel
263	Quercus agrifolia	Coast Live Oak	9	9	25	30	4	3	9	2.3	Yes	No	None	None at this time
264	Quercus agrifolia	Coast Live Oak	16	16	30	35	4	3	16	4.0	Yes	No	None	None at this time
265	Umbellularia californica	Bay Laurel	15	15	30	35	4	3	15	3.8	Yes	No	Pyrophytic	Removal of Fuel

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
266	Quercus kelloggii	Black Oak	18	18	40	30	4	3	18	4.5	Yes	No	Low	Protection Measures
267	Quercus agrifolia	Coast Live Oak	6+10+12+4	17	40	30	4	3	17	4.3	Yes	No	Low	Protection Measures
268	Quercus kelloggii	Black Oak	9	9	26	30	4	3	9	2.3	Yes	No	Moderate	Protection Measures
269	Quercus kelloggii	Black Oak	14	14	30	35	4	3	14	3.5	Yes	No	Moderate	Protection Measures
270	Quercus kelloggii	Black Oak	16	16	35	40	4	3	16	4.0	Yes	No	In Road	Remove for Main Road
271	Quercus kelloggii	Black Oak	8+10	13	35	40	4	3	13	3.3	Yes	No	Significant	Protection Measures
273	Quercus agrifolia	Coast Live Oak	12	12	35	40	4	3	12	3.0	Yes	No	Low	Protection Measures
274	Quercus agrifolia	Coast Live Oak	12+14+12+6+6	24	40	45	4	3	24	6.0	Yes	No	Significant	Protection Measures
275	Quercus kelloggii	Black Oak	6+5	8	35	28	4	3	8	2.0	Yes	No	None	None at this time
276	Quercus agrifolia	Coast Live Oak	19	19	35	40	4	3	19	4.8	Yes	No	Low	Protection Measures
277	Quercus agrifolia	Coast Live Oak	13	13	35	40	4	3	13	3.3	Yes	No	Significant	Remove for Main Road
278	Quercus kelloggii	Black Oak	8	8	35	30	4	3	8	2.0	Yes	No	Significant	Remove for Main Road
279	Arbutus menziesii	Madrone	12+13+13+16+14	30	40	45	4	3	30	7.5	Yes	No	Significant	Protection Measures
280	Arbutus menziesii	Madrone	12	12	35	30	4	3	12	3.0	Yes	No	None	None at this time
281	Quercus agrifolia	Coast Live Oak	6	6	25	24	4	3	6	1.5	Yes	No	None	None at this time
282	Quercus agrifolia	Coast Live Oak	8	8	35	28	4	3	8	2.0	Yes	No	None	None at this time
283	Quercus agrifolia	Coast Live Oak	8	8	30	27	4	3	8	2.0	Yes	No	None	None at this time
284	Quercus agrifolia	Coast Live Oak	7	7	25	25	4	3	7	1.8	Yes	No	None	None at this time
285	Quercus agrifolia	Coast Live Oak	12	12	35	30	4	3	12	3.0	Yes	No	None	None at this time
286	Quercus agrifolia	Coast Live Oak	24	24	40	45	4	3	24	6.0	Yes	No	None	None at this time
287	Quercus agrifolia	Coast Live Oak	12+15	19	40	40	4	3	19	4.8	Yes	No	None	None at this time
288	Quercus kellogii	Black Oak	9	9	30	28	4	3	9	2.3	Yes	No	None	None at this time
290	Quercus kellogii	Black Oak	20	20	40	40	4	3	20	5.0	Yes	No	None	None at this time
291	Quercus agrifolia	Coast Live Oak	8	8	30	26	4	3	8	2.0	Yes	No	None	None at this time
292	Quercus kellogii	Black Oak	5+6	8	30	26	4	3	8	2.0	Yes	No	None	None at this time
293	Quercus agrifolia	Coast Live Oak	7	7	25	25	4	3	7	1.8	Yes	No	None	None at this time
294	Quercus agrifolia	Coast Live Oak	13	13	35	30	4	3	13	3.3	Yes	No	None	None at this time
295	Quercus agrifolia	Coast Live Oak	16+16	23	40	40	4	3	23	5.8	Yes	No	None	None at this time
296	Quercus agrifolia	Coast Live Oak	6	6	20	24	4	3	6	1.5	Yes	No	None	None at this time
297	Quercus agrifolia	Coast Live Oak	8	8	30	38	4	3	8	2.0	Yes	No	None	None at this time
298	Quercus agrifolia	Coast Live Oak	8	8	30	36	4	3	8	2.0	Yes	No	None	None at this time
299	Quercus agrifolia	Coast Live Oak	6+10	12	35	40	4	3	12	3.0	Yes	No	None	None at this time
300	Quercus agrifolia	Coast Live Oak	6	6	20	24	4	3	6	1.5	Yes	No	None	None at this time

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Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
301	Quercus agrifolia	Coast Live Oak	13	13	35	40	4	3	13	3.3	Yes	No	None	None at this time
302	Quercus agrifolia	Coast Live Oak	9	9	30	30	4	3	9	2.3	Yes	No	Low	Protection Measures
303	Quercus kelloggii	Black Oak	6	6	20	24	4	3	6	1.5	Yes	No	None	None at this time
304	Quercus agrifolia	Coast Live Oak	9+7	11	30	28	4	3	11	2.8	Yes	No	In Road	Remove for Main Road
305	Quercus agrifolia	Coast Live Oak	7+5	9	30	30	4	3	9	2.3	Yes	No	Significant	Protection Measures
306	Quercus agrifolia	Coast Live Oak	12+8	14	35	30	4	3	14	3.5	Yes	No	CRZ	Probable Removal
307	Quercus agrifolia	Coast Live Oak	7	7	21	24	4	3	7	1.8	Yes	No	None	None at this time
308	Quercus agrifolia	Coast Live Oak	20	20	40	40	4	3	20	5.0	Yes	No	None	None at this time
309	Quercus lobata	Valley Oak	6	6	22	24	4	3	6	1.5	Yes	No	None	None at this time
310	Quercus agrifolia	Coast Live Oak	6	6	20	24	4	3	6	1.5	Yes	No	None	None at this time
311	Quercus agrifolia	Coast Live Oak	9	9	30	36	4	3	9	2.3	Yes	No	None	None at this time
312	Quercus agrifolia	Coast Live Oak	12+15	13	35	30	4	3	13	3.3	Yes	No	None	None at this time
313	Quercus agrifolia	Coast Live Oak	6	6	20	25	4	3	6	1.5	Yes	No	None	None at this time
314	Quercus agrifolia	Coast Live Oak	14+21	26	40	45	4	3	26	6.5	Yes	No	None	None at this time
315	Arbutus menziesii	Madrone	9+10+3+3	14	35	30	4	3	14	3.5	Yes	No	None	None at this time
316	Quercus agrifolia	Coast Live Oak	28	28	40	45	4	3	28	7.0	Yes	No	None	None at this time
317	Quercus agrifolia	Coast Live Oak	6+12	26	40	45	4	3	26	6.5	Yes	No	None	None at this time
318	Quercus agrifolia	Coast Live Oak	6	6	20	20	4	3	6	1.5	Yes	No	None	None at this time
319	Quercus kelloggii	Black Oak	10	10	30	30	4	3	10	2.5	Yes	No	None	None at this time
320	Quercus agrifolia	Coast Live Oak	21	21	35	36	4	3	21	5.3	Yes	No	Moderate	Protection Measures
321	Quercus agrifolia	Coast Live Oak	7	7	22	28	4	3	7	1.8	Yes	No	In Road	Remove for Main Road
322	Quercus agrifolia	Coast Live Oak	8	8	24	20	4	3	8	2.0	Yes	No	None	None at this time
323	Arbutus menziesii	Madrone	12+12+10+10	22	40	42	4	3	22	5.5	Yes	No	None	None at this time
324	Umbellularia californica	Bay Laurel	7	7	16	18	4	3	7	1.8	Yes	No	Pyrophytic	Removal of Fuel
325	Umbellularia californica	Bay Laurel	8	8	16	12	4	3	8	2.0	Yes	No	Pyrophytic	Removal of Fuel
326	Arbutus menziesii	Madrone	18+18	25	40	50	4	3	25	6.3	Yes	No	None	None at this time
327	Arbutus menziesii	Madrone	4+10	11	32	24	4	3	11	2.8	Yes	No	None	None at this time
328	Quercus kelloggii	Black Oak	7	7	15	18	4	3	7	1.8	Yes	No	None	None at this time
329	Quercus kelloggii	Black Oak	12	12	30	24	4	3	12	3.0	Yes	No	None	None at this time
330	Quercus agrifolia	Coast Live Oak	7	7	15	16	4	3	7	1.8	Yes	No	None	None at this time
331	Quercus agrifolia	Coast Live Oak	7	7	15	15	4	3	7	1.8	Yes	No	None	None at this time
332	Quercus kelloggii	Black Oak	7	7	15	16	4	3	7	1.8	Yes	No	None	None at this time
333	Umbellularia californica	Bay Laurel	4+10	11	30	24	4	3	11	2.8	Yes	No	Pyrophytic	Removal of Fuel

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Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
334	Quercus kelloggii	Black Oak	7	7	16	16	4	3	7	1.8	Yes	No	None	None at this time
335	Quercus kelloggii	Black Oak	12	12	30	30	4	3	12	3.0	Yes	No	None	None at this time
336	Quercus kelloggii	Black Oak	7	7	16	12	4	3	7	1.8	Yes	No	None	None at this time
337	Quercus agrifolia	Coast Live Oak	7	7	15	18	4	3	7	1.8	Yes	No	None	None at this time
338	Quercus agrifolia	Coast Live Oak	10	10	30	36	4	3	10	2.5	Yes	No	None	None at this time
339	Quercus agrifolia	Coast Live Oak	12	12	35	35	4	3	12	3.0	Yes	No	None	None at this time
340	Quercus kelloggii	Black Oak	12	12	30	30	4	3	12	3.0	Yes	No	None	None at this time
341	Quercus agrifolia	Coast Live Oak	14	14	35	28	4	3	14	3.5	Yes	No	None	None at this time
342	Arbutus menziesii	Madrone	16	16	35	30	4	3	16	4.0	Yes	No	None	None at this time
343	Umbellularia californica	Bay Laurel	8	8	16	16	4	3	8	2.0	Yes	No	Pyrophytic	Removal of Fuel
344	Umbellularia californica	Bay Laurel	6+7+8	12	30	30	4	3	12	3.0	Yes	No	Pyrophytic	Removal of Fuel
345	Quercus agrifolia	Coast Live Oak	9	9	25	24	4	3	9	2.3	Yes	No	None	None at this time
346	Arbutus menziesii	Madrone	8+9+12	17	40	42	4	3	17	4.3	Yes	No	None	None at this time
347	Quercus agrifolia	Coast Live Oak	7+7	11	35	32	4	3	11	2.8	Yes	No	None	None at this time
348	Quercus agrifolia	Coast Live Oak	12+13+18	25	40	50	4	3	25	6.3	Yes	No	None	None at this time
349	Quercus agrifolia	Coast Live Oak	7+7	11	25	24	4	3	11	2.8	Yes	No	None	None at this time
350	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
351	Quercus agrifolia	Coast Live Oak	8	8	16	18	4	3	8	2.0	Yes	No	None	None at this time
352	Quercus agrifolia	Coast Live Oak	12	12	30	32	4	3	12	3.0	Yes	No	None	None at this time
353	Arbutus menziesii	Madrone	12+14+10+15	26	40	50	4	3	26	6.5	Yes	No	None	None at this time
354	Umbellularia californica	Bay Laurel	11+11	16	35	38	4	3	16	4.0	Yes	No	Pyrophytic	Removal of Fuel
355	Umbellularia californica	Bay Laurel	11	11	25	20	4	3	11	2.8	Yes	No	Pyrophytic	Removal of Fuel
356	Umbellularia californica	Bay Laurel	7	7	18	20	4	3	7	1.8	Yes	No	Pyrophytic	Removal of Fuel
357	Quercus agrifolia	Coast Live Oak	7	7	18	20	4	3	7	1.8	Yes	No	None	None at this time
358	Quercus agrifolia	Coast Live Oak	12	12	30	36	4	3	12	3.0	Yes	No	None	None at this time
359	Quercus kelloggii	Black Oak	13	13	30	34	4	3	13	3.3	Yes	No	None	None at this time
360	Quercus kellogii	Black Oak	8+4	9	16	18	4	3	9	2.3	Yes	No	None	None at this time
362	Arbutus menziesii	Madrone	11	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
363	Quercus kellogii	Black Oak	14	14	30	3308	4	3	14	3.5	Yes	No	None	None at this time
364	Quercus kellogii	Black Oak	18	18	35	45	4	3	18	4.5	Yes	No	None	None at this time
365	Quercus agrifolia	Coast Live Oak	13	13	35	28	4	3	13	3.3	Yes	No	None	None at this time
366	Umbellularia californica	Bay Laurel	12	12	35	28	4	3	12	3.0	Yes	No	Pyrophytic	Removal of Fuel
367	Quercus lobata	Valley Oak	7	7	25	24	4	3	7	1.8	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
368	Quercus agrifolia	Coast Live Oak	12+7	14	30	26	4	3	14	3.5	Yes	No	None	None at this time
369	Quercus agrifolia	Coast Live Oak	11+8	14	30	26	4	3	14	3.5	Yes	No	None	None at this time
370	Umbellularia californica	Bay Laurel	10+12+10+10+3	21	40	35	4	3	21	5.3	Yes	No	Pyrophytic	Removal of Fuel
371	Quercus agrifolia	Coast Live Oak	13+13+19	26	40	60	4	3	26	6.5	Yes	No	None	None at this time
372	Quercus agrifolia	Coast Live Oak	12+12+25	20	45	60	3	2	20	5.0	Yes	No	None	None at this time
373	Quercus agrifolia	Coast Live Oak	19	19	40	50	4	3	19	4.8	Yes	No	None	None at this time
374	Quercus kellogii	Black Oak	7+8+11	16	30	28	4	3	16	4.0	Yes	No	None	None at this time
375	Quercus kellogii	Black Oak	8	8	25	24	4	3	8	2.0	Yes	No	None	None at this time
376	Quercus kellogii	Black Oak	8	8	25	24	4	3	8	2.0	Yes	No	None	None at this time
377	Quercus agrifolia	Coast Live Oak	15+18+13	27	40	40	4	3	27	6.8	Yes	No	None	None at this time
378	Quercus agrifolia	Coast Live Oak	14+5	15	30	28	4	3	15	3.8	Yes	No	None	None at this time
379	Quercus agrifolia	Coast Live Oak	8+18	20	40	50	4	3	20	5.0	Yes	No	None	None at this time
381	Quercus kellogii	Black Oak	10	10	35	26	4	3	33	2.5	Yes	No	Significant	Protection Measures
382	Quercus agrifolia	Coast Live Oak	11	11	35	26	4	3	10	2.8	Yes	No	Moderate	Protection Measures
383	Pseudotsuga menziesii	Douglas Fir	24	24	40	50	4	3	11	6.0	Yes	No	In Road	Remove for Main Road
384	Quercus agrifolia	Coast Live Oak	12	12	35	28	4	3	12	3.0	Yes	No	None	None at this time
386	Quercus kellogii	Black Oak	12	12	35	28	4	3	12	3.0	Yes	No	None	None at this time
387	Quercus agrifolia	Coast Live Oak	8+14+18	18	40	40	4	3	18	4.5	Yes	No	None	None at this time
388	Quercus kellogii	Black Oak	8+8	15	25	40	4	3	15	3.8	Yes	No	None	None at this time
389	Arbutus menziesii	Madrone	11+7	13	25	45	4	2	7	3.3	Yes	No	None	None at this time
390	Umbellularia californica	Bay Laurel	3	3	12	12	4	3	3	0.8	Yes	No	Pyrophytic	Removal of Fuel
391	Umbellularia californica	Bay Laurel	7	7	14	24	2	3	24	1.8	Yes	No	Pyrophytic	Removal of Fuel
392	Quercus agrifolia	Coast Live Oak	16	16	40	50	4	2	6	4.0	Yes	No	None	None at this time
393	Quercus agrifolia	Coast Live Oak	10	10	35	26	4	2	6	2.5	Yes	No	None	None at this time
394	Quercus agrifolia	Coast Live Oak	10	10	30	20	2	3	10	2.5	Yes	No	None	None at this time
395	Quercus kellogii	Black Oak	24	24	40	25	4	3	24	6.0	Yes	No	None	None at this time
396	Quercus agrifolia	Coast Live Oak	12	12	30	42	4	3	12	3.0	Yes	No	None	None at this time
397	Quercus agrifolia	Coast Live Oak	14	14	35	35	4	3	14	3.5	Yes	No	None	None at this time
398	Umbellularia californica	Bay Laurel	13	13	30	38	4	3	13	3.3	Yes	No	Pyrophytic	Removal of Fuel
399	Quercus agrifolia	Coast Live Oak	18	18	40	44	4	3	18	4.5	Yes	No	None	None at this time
400	Quercus agrifolia	Coast Live Oak	8	8	16	18	4	3	8	2.0	Yes	No	None	None at this time
401	Umbellularia californica	Bay Laurel	6	6	16	16	3	3	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
402	Quercus lobata	Valley Oak	8	8	16	18	4	3	8	2.0	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
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Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
403	Quercus agrifolia	Coast Live Oak	14	14	30	38	4	3	14	3.5	Yes	No	None	None at this time
405	Arbutus menziesii	Madrone	13	13	30	38	4	3	13	3.3	Yes	No	None	None at this time
406	Quercus lobata	Valley Oak	12	12	30	38	4	3	12	3.0	Yes	No	None	None at this time
407	Quercus agrifolia	Coast Live Oak	10	10	30	24	4	3	10	2.5	Yes	No	None	None at this time
408	Quercus kellogii	Black Oak	13+19	23	40	44	4	3	23	5.8	Yes	No	Low	Protection Measures
409	Quercus agrifolia	Coast Live Oak	8	8	16	20	4	3	8	2.0	Yes	No	None	None at this time
410	Quercus agrifolia	Coast Live Oak	6	6	15	16	4	3	6	1.5	Yes	No	None	None at this time
411	Quercus agrifolia	Coast Live Oak	6	6	15	16	4	3	6	1.5	Yes	No	None	None at this time
412	Quercus agrifolia	Coast Live Oak	6	6	15	16	4	3	6	1.5	Yes	No	None	None at this time
413	Quercus agrifolia	Coast Live Oak	7	7	18	18	4	3	7	1.8	Yes	No	None	None at this time
414	Quercus agrifolia	Coast Live Oak	12	12	30	38	4	3	12	3.0	Yes	No	None	None at this time
415	Quercus agrifolia	Coast Live Oak	15	15	35	42	4	3	15	3.8	Yes	No	None	None at this time
416	Quercus agrifolia	Coast Live Oak	12	12	30	38	4	3	12	3.0	Yes	No	None	None at this time
417	Quercus agrifolia	Coast Live Oak	7	7	16	18	4	3	7	1.8	Yes	No	None	None at this time
418	Quercus agrifolia	`	14	14	30	38	4	3	14	3.5	Yes	No	Low	Protection Measures
419	Quercus agrifolia	Coast Live Oak	9+9	13	30	40	4	3	13	3.3	Yes	No	Moderate	Protection Measures
420	Quercus agrifolia	Coast Live Oak	6	6	15	18	4	3	8	1.5	Yes	No	None	None at this time
421	Quercus kellogii	Black Oak	8	8	16	18	4	3	8	2.0	Yes	No	Moderate	Protection Measures
422	Quercus agrifolia	Coast Live Oak	9	9	30	24	4	3	9	2.3	Yes	No	CRZ	Probable Removal
423	Quercus agrifolia	Coast Live Oak	8	8	16	18	4	3	8	2.0	Yes	No	Moderate	Protection Measures
424	Pinus radiata	Monterey Pine	14	14	30	36	4	3	14	3.5	Yes	No	Significant	Protection Measures
425	Quercus agrifolia	Coast Live Oak	6	6	15	16	4	3	6	1.5	Yes	No	None	None at this time
426	Quercus agrifolia	Coast Live Oak	8	8	18	20	4	3	8	2.0	Yes	No	None	None at this time
427	Quercus agrifolia	Coast Live Oak	8	8	18	20	4	3	8	2.0	Yes	No	Low	Protection Measures
428	Quercus kelloggii	Black Oak	8	8	18	20	4	3	8	2.0	Yes	No	None	None at this time
429	Quercus agrifolia	Coast Live Oak	8	8	18	20	4	3	8	2.0	Yes	No	None	None at this time
430	Quercus agrifolia	Coast Live Oak	8	8	18	20	4	3	8	2.0	Yes	No	None	None at this time
431	Quercus agrifolia	Coast Live Oak	10+11	15	30	36	4	3	15	3.8	Yes	No	None	None at this time
432	Quercus agrifolia	Coast Live Oak	8	8	18	20	4	3	8	2.0	Yes	No	None	None at this time
433	Quercus kellogii	Black Oak	6	6	16	18	4	3	6	1.5	Yes	No	None	None at this time
434	Quercus kellogii	Black Oak	8+11	14	30	36	4	3	14	3.5	Yes	No	None	None at this time
435	Quercus kelloggii	Black Oak	6	6	16	18	4	3	6	1.5	Yes	No	None	None at this time
436	Quercus kelloggii	Black Oak	6	6	16	18	4	3	6	1.5	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
437	Quercus agrifolia	Coast Live Oak	4+4+12+14+15	24	40	44	4	3	24	6.0	Yes	No	None	None at this time
438	Quercus agrifolia	Coast Live Oak	6	6	18	20	4	3	6	1.5	Yes	No	None	None at this time
439	Quercus agrifolia	Coast Live Oak	17	17	40	40	4	3	17	4.3	Yes	No	None	None at this time
440	Quercus agrifolia	Coast Live Oak	12	12	32	35	4	3	12	3.0	Yes	No	None	None at this time
441	Quercus agrifolia	Coast Live Oak	11	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
442	Quercus agrifolia	Coast Live Oak	8	8	16	20	4	3	8	2.0	Yes	No	None	None at this time
443	Umbellularia californica	Bay Laurel	6+5	8	15	16	4	3	8	2.0	Yes	No	Pyrophytic	Removal of Fuel
444	Quercus kellogii	Black Oak	24	24	40	42	4	3	24	6.0	Yes	No	None	None at this time
445	Quercus kellogii	Black Oak	8	8	15	16	4	3	8	2.0	Yes	No	None	None at this time
446	Umbellularia californica	Bay Laurel	6+6	9	25	20	4	3	9	2.3	Yes	No	Pyrophytic	Removal of Fuel
447	Arbutus menziesii	Madrone	12	12	39	32	4	3	12	3.0	Yes	No	None	None at this time
448	Quercus agrifolia	Coast Live Oak	11	11	30	30	4	3	11	2.8	Yes	No	None	None at this time
449	Quercus kellogii	Black Oak	11	11	30	32	4	3	11	2.8	Yes	No	None	None at this time
450	Arbutus menziesii	Madrone	7+12	14	32	30	4	3	14	3.5	Yes	No	None	None at this time
451	Quercus kelloggii	Black Oak	8+13	15	32	28	4	3	15	3.8	Yes	No	None	None at this time
452	Umbellularia californica	Bay Laurel	6+9	11	30	32	4	3	11	2.8	Yes	No	Pyrophytic	Removal of Fuel
453	Umbellularia californica	Bay Laurel	8	8	15	16	4	3	8	2.0	Yes	No	Pyrophytic	Removal of Fuel
454	Heteromeles arbutifolia	Toyon	6	6	15	16	4	3	6	1.5	Yes	No	None	None at this time
455	Arbutus menziesii	Madrone	6+5	8	18	18	4	3	8	2.0	Yes	No	None	None at this time
456	Umbellularia californica	Bay Laurel	13	13	30	32	4	3	13	3.3	Yes	No	Pyrophytic	Removal of Fuel
457	Quercus agrifolia	Coast Live Oak	7+12+14	20	35	35	4	3	20	5.0	Yes	No	None	None at this time
458	Quercus kellogii	Black Oak	13	13	30	32	4	3	13	3.3	Yes	No	None	None at this time
459	Pseuedotsuga menziesii	Douglas Fir	15	15	30	40	4	3	15	3.8	Yes	No	Pyrophytic	Removal of Fuel
460	Quercus agrifolia	Coast Live Oak	7+7	10	30	24	4	3	10	2.5	Yes	No	None	None at this time
461	Quercus agrifolia	Coast Live Oak	5+10	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
462	Quercus agrifolia	Coast Live Oak	13+16+20	29	45	50	4	3	29	7.3	Yes	No	None	None at this time
463	Quercus lobata	Valley Oak	15	15	30	40	4	3	15	3.8	Yes	No	None	None at this time
464	Quercus lobata	Valley Oak	16	16	30	35	4	3	16	4.0	Yes	No	None	None at this time
465	Quercus lobata	Valley Oak	12+12+12+9	23	35	40	4	3	23	5.8	Yes	No	None	None at this time
466	Quercus agrifolia	Coast Live Oak	10	10	30	20	4	3	10	2.5	Yes	No	Moderate	Protection Measures
467	Quercus agrifolia	Coast Live Oak	6+7	9	28	20	4	3	9	2.3	Yes	No	None	None at this time
468	Quercus agrifolia	Coast Live Oak	12	12	30	30	4	3	12	3.0	Yes	No	LOT #10	None at this time
469	Quercus agrifolia	Coast Live Oak	6	6	18	12	4	3	6	1.5	Yes	No	LOT #10	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
470	Quercus agrifolia	Coast Live Oak	6+7	9	28	26	4	3	9	2.3	Yes	No	LOT #10	None at this time
471	Quercus agrifolia	Coast Live Oak	4+6+7	10	30	24	4	3	10	2.5	Yes	No	LOT #10	None at this time
472	Quercus agrifolia	Coast Live Oak	12+12	17	30	28	4	3	17	4.3	Yes	No	LOT #10	None at this time
473	Quercus kellogii	Black Oak	7	7	16	12	4	3	7	1.8	Yes	No	LOT #10	None at this time
474	Quercus agrifolia	Coast Live Oak	11+18	21	35	30	4	3	21	5.3	Yes	No	LOT #10	None at this time
475	Quercus agrifolia	Coast Live Oak	13	13	30	36	4	3	13	3.3	Yes	No	LOT #10	None at this time
476	Quercus agrifolia	Coast Live Oak	18	18	30	38	4	3	18	4.5	Yes	No	None	None at this time
477	Umbellularia californica	Bay Laurel	12	12	30	36	4	3	12	3.0	Yes	No	Pyrophytic	Removal of Fuel
478	Quercus agrifolia	Coast Live Oak	22	22	35	30	4	3	22	5.5	Yes	No	None	None at this time
479	Quercus agrifolia	Coast Live Oak	4+6	7	15	14	4	3	7	1.8	Yes	No	None	None at this time
480	Quercus agrifolia	Coast Live Oak	19	19	40	40	4	3	19	4.8	Yes	No	None	None at this time
481	Quercus agrifolia	Coast Live Oak	7+5	9	30	14	4	3	9	2.3	Yes	No	None	None at this time
482	Quercus agrifolia	Coast Live Oak	10+16	19	40	42	4	3	19	4.8	Yes	No	None	None at this time
483	Pinus radiata	Monterey Pine	7	7	15	12	4	3	7	1.8	Yes	No	None	None at this time
484	Quercus agrifolia	Coast Live Oak	4+5+7	9	26	28	4	3	9	2.3	Yes	No	None	None at this time
485	Quercus agrifolia	Coast Live Oak	6	6	15	12	4	3	6	1.5	Yes	No	None	None at this time
486	Quercus agrifolia	Coast Live Oak	7+7	10	30	24	4	3	10	2.5	Yes	No	None	None at this time
487	Arbutus menziesii	Madrone	10+12	16	35	38	8	3	16	4.0	Yes	No	None	None at this time
488	Quercus agrifolia	Coast Live Oak	13	13	18	20	4	3	13	3.3	Yes	No	None	None at this time
489	Quercus agrifolia	Coast Live Oak	12+12+13	21	40	44	4	3	21	5.3	Yes	No	None	None at this time
490	Quercus agrifolia	Coast Live Oak	7	7	18	20	4	3	7	1.8	Yes	No	None	None at this time
491	Quercus lobata	Valley Oak	9	9	30	24	4	3	9	2.3	Yes	No	None	None at this time
492	Quercus agrifolia	Coast Live Oak	6	6	14	12	4	3	6	1.5	Yes	No	None	None at this time
493	Quercus agrifolia	Coast Live Oak	6	6	14	12	4	3	6	1.5	Yes	No	None	None at this time
494	Quercus agrifolia	Coast Live Oak	6	6	15	12	4	3	6	1.5	Yes	No	LOT #9	None at this time
495	Quercus agrifolia	Coast Live Oak	12	12	30	36	4	3	12	3.0	Yes	No	In Road	Remove for Main Road
496	Quercus agrifolia	Coast Live Oak	7	7	18	20	4	3	7	1.8	Yes	No	Low	Protection Measures
497	Quercus agrifolia	Coast Live Oak	6+5	8	18	22	4	3	8	2.0	Yes	No	None	None at this time
498	Quercus agrifolia	Coast Live Oak	12	12	30	38	4	3	12	3.0	Yes	No	Significant	Remove for Main Road
499	Quercus agrifolia	Coast Live Oak	8	8	18	24	4	3	8	2.0	Yes	No	In Road	Remove for Main Road
500	Quercus agrifolia	Coast Live Oak	6	6	15	12	4	3	6	1.5	Yes	No	None	None at this time
501	Quercus agrifolia	Coast Live Oak	7+6	9	16	20	4	3	9	2.3	Yes	No	None	None at this time
502	Quercus agrifolia	Coast Live Oak	6	6	15	12	4	3	6	1.5	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
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Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
503	Quercus agrifolia	Coast Live Oak	6	6	14	15	4	3	6	1.5	Yes	No	None	None at this time
504	Quercus agrifolia	Coast Live Oak	6	6	14	14	4	3	6	1.5	Yes	No	None	None at this time
505	Quercus agrifolia	Coast Live Oak	6	6	15	14	4	3	6	1.5	Yes	No	None	None at this time
506	Quercus agrifolia	Coast Live Oak	7	7	15	16	4	3	7	1.8	Yes	No	None	None at this time
507	Quercus agrifolia	Coast Live Oak	7+5	9	25	24	4	3	9	2.3	Yes	No	Significant	Protection Measures
508	Quercus agrifolia	Coast Live Oak	6	6	14	15	4	3	6	1.5	Yes	No	None	None at this time
509	Quercus agrifolia	Coast Live Oak	6	6	15	12	4	3	6	1.5	Yes	No	LOT #9	None at this time
510	Quercus agrifolia	Coast Live Oak	6	6	14	14	4	3	6	1.5	Yes	No	LOT #9	None at this time
511	Quercus agrifolia	Coast Live Oak	8+13	15	30	24	4	3	15	3.8	Yes	No	None	None at this time
512	Quercus agrifolia	Coast Live Oak	5+6	9	25	24	4	3	9	2.3	Yes	No	None	None at this time
513	Quercus agrifolia	Coast Live Oak	6	6	18	14	4	3	6	1.5	Yes	No	None	None at this time
514	Quercus agrifolia	Coast Live Oak	8+8	11	25	24	4	3	11	2.8	Yes	No	None	None at this time
515	Quercus agrifolia	Coast Live Oak	8+7	11	25	24	4	3	11	2.8	Yes	No	None	None at this time
516	Quercus garryana	Oregon Oak	7	7	20	18	4	4	7	1.8	Yes	No	LOT #2	None at this time
517	Quercus agrifolia	Coast Live Oak	6	6	14	20	4	3	6	1.5	Yes	No	None	None at this time
518	Quercus agrifolia	Coast Live Oak	10	10	25	30	4	4	10	2.5	Yes	No	None	None at this time
519	Quercus agrifolia	Coast Live Oak	6	6	12	18	3	4	6	1.5	Yes	No	None	None at this time
520	Quercus agrifolia	Coast Live Oak	6	6	14	18	3	3	6	1.5	Yes	No	None	None at this time
521	Quercus garryana	Oregon Oak	10	10	21	24	4	4	10	2.5	Yes	No	None	None at this time
522	Quercus garryana	Oregon Oak	6	6	18	16	4	4	6	1.5	Yes	No	None	None at this time
523	Quercus agrifolia	Coast Live Oak	13	13	25	26	3	4	13	3.3	Yes	No	None	None at this time
524	Quercus agrifolia	Coast Live Oak	12+12+10+13	24	24	25	3	4	24	6.0	Yes	No	None	None at this time
526	Quercus agrifolia	Coast Live Oak	16+14	21	40	42	3	4	21	5.3	Yes	No	None	None at this time
527	Quercus agrifolia	Coast Live Oak	13	13	38	40	3	4	13	3.3	Yes	No	None	None at this time
528	Quercus agrifolia	Coast Live Oak	13	13	38	40	3	4	13	3.3	Yes	No	None	None at this time
529	Quercus agrifolia	Coast Live Oak	15	22	40	38	3	4	22	5.5	Yes	No	None	None at this time
530	Quercus agrifolia	Coast Live Oak	10+10	14	30	28	3	4	14	3.5	Yes	No	In Road	Remove for Main Road
531	Quercus agrifolia	Coast Live Oak	10+10	14	30	28	3	4	14	3.5	Yes	No	In Road	Remove for Main Road
532	Quercus agrifolia	Coast Live Oak	8	8	18	18	3	4	8	2.0	Yes	No	None	None at this time
533	Quercus agrifolia	Coast Live Oak	6+5	8	18	20	3	4	8	2.0	Yes	No	None	None at this time
534	Quercus agrifolia	Coast Live Oak	30	30	40	30	3	2	30	7.5	Yes	No	None	None at this time
535	Quercus agrifolia	Coast Live Oak	23	23	40	20	2	3	23	5.8	Yes	No	None	None at this time
536	Quercus agrifolia	Coast Live Oak	24	24	40	21	3	3	24	6.0	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
537	Umbellularia californica	Bay Laurel	14+16+14	25.5	40	25	4	3	25.5	6.4	Yes	No	Pyrophytic	Removal of Fuel
538	Quercus agrifolia	Coast Live Oak	21	21	40	28	4	3	21	5.3	Yes	No	None	None at this time
539	Quercus agrifolia	Coast Live Oak	11+9+7+12	20	40	25	4	3	20	5.0	Yes	No	None	None at this time
541	Quercus agrifolia	Coast Live Oak	19+16	27.5	40	20	3	3	27.5	6.9	Yes	No	None	None at this time
542	Quercus agrifolia	Coast Live Oak	20	20	40	20	4	3	20	5.0	Yes	No	None	None at this time
543	Quercus agrifolia	Coast Live Oak	18	18	40	30	4	2	18	4.5	Yes	No	None	None at this time
544	Quercus agrifolia	Coast Live Oak	20	20	40	20	3	3	20	5.0	Yes	No	None	None at this time
545	Quercus agrifolia	Coast Live Oak	21	21	40	22	3	3	21	5.3	Yes	No	None	None at this time
546	Arbutus menziesii	Madrone	20.5	20.5	40	21	3	3	20.5	5.1	Yes	No	None	None at this time
547	Umbellularia californica	Bay Laurel	19	19	40	24	3	3	19	4.8	Yes	No	Pyrophytic	Removal of Fuel
548	Quercus agrifolia	Coast Live Oak	4x8+9	18.5	40	25	4	2	18.5	4.6	Yes	No	None	None at this time
550	Quercu kelloggii	Black Oak	17+16	23.5	40	28	4	3	23.5	5.9	Yes	No	None	None at this time
551	Quercu kelloggii	Black Oak	23	23	40	30	4	3	23	5.8	Yes	No	Low	Protection Measures
552	Quercus lobata	Valley Oak	18	18	35	30	4	3	18	4.5	Yes	No	Moderate	Protection Measures
553	Quercus lobata	Valley Oak	11+17	20	35	22	4	3	20	5.0	Yes	No	LOT #10	None at this time
554	Quercus agrifolia	Coast Live Oak	6+6	8	14	16	4	3	8	2.0	Yes	No	None	None at this time
555	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	In Road	Remove for Lot 1/2 Access
556	Quercus agrifolia	Coast Live Oak	6	6	12	16	4	3	6	1.5	Yes	No	In Road	Remove for Lot 1/2 Access
557	Quercus agrifolia	Coast Live Oak	6	6	22	20	4	3	6	1.5	Yes	No	LOT #1	None at this time
558	Quercus agrifolia	Coast Live Oak	6	6	22	20	4	3	6	1.5	Yes	No	None	None at this time
559	Pinus radiata	Monterey Pine	6	6	22	20	4	3	6	1.5	Yes	No	LOT #2	None at this time
560	Quercus agrifolia	Coast Live Oak	7	7	15	28	4	3	6	1.8	Yes	No	LOT #2	None at this time
561	Quercus agrifolia	Coast Live Oak	7	7	12	28	4	3	6	1.8	Yes	No	None	None at this time
562	Quercus agrifolia	Coast Live Oak	6	6	13	20	4	3	6	1.5	Yes	No	LOT #2	None at this time
563	Quercus agrifolia	Coast Live Oak	8	8	12	16	4	3	6	2.0	Yes	No	None	None at this time
564	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	10	1.5	Yes	No	None	None at this time
565	Pinus radiata	Monterey Pine	7	7	30	24	4	3	7	1.8	Yes	No	In Road	Remove for Lot 3/4 Access
566	Quercus agrifolia	Coast Live Oak	6	6	14	24	4	3	6	1.5	Yes	No	In Road	Remove for Lot 3/4 Access
567	Quercus agrifolia	Coast Live Oak	10	10	35	28	4	3	10	2.5	Yes	No	None	None at this time

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Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
568	Quercus agrifolia	Coast Live Oak	6	6	14	24	4	3	6	1.5	Yes	No	None	None at this time
569	Quercus agrifolia	Coast Live Oak	8	8	10	28	4	3	8	2.0	Yes	No	None	None at this time
570	Quercus agrifolia	Coast Live Oak	6	6	18	16	4	3	6	1.5	Yes	No	None	None at this time
571	Quercus agrifolia	Coast Live Oak	7	7	25	16	4	2	7	1.8	Yes	No	None	None at this time
572	Quercus agrifolia	Coast Live Oak	10	10	30	24	4	3	10	2.5	Yes	No	None	None at this time
573	Quercus agrifolia	Coast Live Oak	8	8	20	28	4	3	8	2.0	Yes	No	None	None at this time
574	Quercus lobata	Valley Oak	6	6	20	24	4	3	6	1.5	Yes	No	LOT #7	None at this time
575	Prunus domestica	Wild Plum	8	8	18	20	2	3	8	2.0	Yes	No	None	None at this time
576	Quercus agrifolia	Coast Live Oak	7	7	12	16	4	2	7	1.8	Yes	No	None	None at this time
577	Quercus agrifolia	Coast Live Oak	6	6	25	24	4	3	6	1.5	Yes	No	None	None at this time
578	Quercus agrifolia	Coast Live Oak	10	10	30	24	4	3	10	2.5	Yes	No	None	None at this time
579	Quercus agrifolia	Coast Live Oak	10	10	30	24	4	3	10	2.5	Yes	No	None	None at this time
580	Quercus agrifolia	Coast Live Oak	11	11	30	24	4	3	11	2.8	Yes	No	None	None at this time
581	Quercus agrifolia	Coast Live Oak	9	9	30	28	3	3	9	2.3	Yes	No	None	None at this time
582	Quercus agrifolia	Coast Live Oak	6+6	8	25	24	3	3	8	2.0	Yes	No	None	None at this time
583	Quercus agrifolia	Coast Live Oak	6+6	8	25	24	3	3	8	2.0	Yes	No	None	None at this time
584	Quercus agrifolia	Coast Live Oak	16+20+6	26	40	50	4	2	26	6.5	Yes	No	None	None at this time
585	Quercus agrifolia	Coast Live Oak	12+13	17	40	50	4	3	17	4.3	Yes	No	None	None at this time
586	Quercus agrifolia	Coast Live Oak	6	6	25	24	4	3	6	1.5	Yes	No	None	None at this time
587	Quercus agrifolia	Coast Live Oak	16+14	21	40	38	4	3	21	5.3	Yes	No	None	None at this time
588	Quercus agrifolia	Coast Live Oak	6+8+10	14	25	38	4	3	14	3.5	Yes	No	None	None at this time
589	Quercus agrifolia	Valley Oak	8	8	22	38	4	3	8	2.0	Yes	No	None	None at this time
590	Quercus lobata	Coast Live Oak	7	7	15	25	4	3	7	1.8	Yes	No	None	None at this time
591	Quercus agrifolia	Coast Live Oak	7	7	16	24	4	3	7	1.8	Yes	No	None	None at this time
592	Quercus agrifolia	Valley Oak	6	6	30	24	2	3	7	1.5	Yes	No	None	None at this time
593	Quercus agrifolia	Coast Live Oak	10+7+5	13	25	40	3	3	13	3.3	Yes	No	None	None at this time
594	Quercus agrifolia	Coast Live Oak	20	20	40	40	4	2	20	5.0	Yes	No	None	None at this time
595	Quercus agrifolia	Coast Live Oak	6	6	30	30	3	2	6	1.5	Yes	No	None	None at this time
596	Arbutus menziesii	Madrone	7	7	18	20	4	3	7	1.8	No	No	None	None at this time
597	Quercus agrifolia	Coast Live Oak	14	14	40	40	4	3	14	3.5	Yes	No	None	None at this time
598	Quercus agrifolia	Coast Live Oak	12	12	40	40	3	3	12	3.0	Yes	No	None	None at this time
599	Quercus agrifolia	Coast Live Oak	7	7	25	30	3	3	7	1.8	Yes	No	None	None at this time
600	Quercus agrifolia	Coast Live Oak	9	9	30	30	4	3	9	2.3	Yes	No	None	None at this time

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Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
601	Quercus agrifolia	Coast Live Oak	6	6	40	40	4	3	6	1.5	Yes	No	None	None at this time
602	Quercus agrifolia	Coast Live Oak	13	13	35	40	4	3	13	3.3	Yes	No	None	None at this time
603	Quercus agrifolia	Coast Live Oak	15+6	16	15	24	4	3	13	4.0	Yes	No	None	None at this time
604	Quercus agrifolia	Coast Live Oak	6	6	15	24	4	3	13	1.5	Yes	No	None	None at this time
605	Umbellularia californica	Bay Laurel	9	6	21	24	4	3	9	1.5	Yes	No	Pyrophytic	Removal of Fuel
606	Quercus agrifolia	Coast Live Oak	14	14	30	32	4	3	14	3.5	Yes	No	None	None at this time
607	Quercus agrifolia	Coast Live Oak	10	10	22	24	4	3	10	2.5	Yes	No	None	None at this time
608	Quercus lobata	Coast Live Oak	9	9	25	28	4	3	10	2.3	Yes	No	None	None at this time
609	Quercus agrifolia	Coast Live Oak	10	10	30	28	4	3	10	2.5	Yes	No	None	None at this time
610	Quercus lobata	Valley Oak	7	7	25	30	4	3	7	1.8	Yes	No	None	None at this time
611	Quercus agrifolia	Coast Live Oak	10	10	25	28	4	3	10	2.5	Yes	No	None	None at this time
612	Quercus lobata	Valley Oak	13	13	35	24	4	3	13	3.3	Yes	No	None	None at this time
613	Umbellularia californica	Bay Laurel	22	22	40	44	3	3	22	5.5	Yes	No	Pyrophytic	Removal of Fuel
614	Quercus agrifolia	Coast Live Oak	6	6	12	32	3	3	6	1.5	Yes	No	None	None at this time
615	Quercus agrifolia	Coast Live Oak	10	10	35	42	4	2	10	2.5	Yes	No	None	None at this time
616	Umbellularia californica	Bay Laurel	12	12	35	24	2	2	12	3.0	Yes	No	Pyrophytic	Removal of Fuel
617	Quercus agrifolia	Coast Live Oak	10	10	15	36	4	2	10	2.5	Yes	No	None	None at this time
618	Umbellularia californica	Bay Laurel	11+9+3x3+2	15	35	36	2	3	15	3.8	Yes	No	Pyrophytic	Removal of Fuel
619	Quercus agrifolia	Coast Live Oak	16	16	12	24	3	2	16	4.0	Yes	No	None	None at this time
620	Quercus agrifolia	Coast Live Oak	16	16	25	50	2	2	16	4.0	Yes	No	None	None at this time
621	Quercus agrifolia	Coast Live Oak	11	11	30	36	4	3	11	2.8	Yes	No	None	None at this time
622	Aesculus californica	California Buckeye	10	10	12	40	4	3	10	2.5	Yes	No	None	None at this time
623	Aesculus californica	California Buckeye	6	6	12	24	4	2	6	1.5	Yes	No	None	None at this time
624	Umbellularia californica	Bay Laurel	7+7	10	25	28	3	2	10	2.5	Yes	No	Pyrophytic	Removal of Fuel
625	Umbellularia californica	Bay Laurel	13	13	35	24	3	2	13	3.3	Yes	No	Pyrophytic	Removal of Fuel
626	Quercus agrifolia	Coast Live Oak	12	12	40	40	4	3	12	3.0	Yes	No	None	None at this time
627	Quercus agrifolia	Coast Live Oak	20	20	40	50	3	1	20	5.0	No	No	None	Remove due to Condition
628	Umbellularia californica	Bay Laurel	8+8	11	40	36	4	3	11	2.8	Yes	No	Pyrophytic	Removal of Fuel
629	Umbellularia californica	Bay Laurel	11	11	35	40	4	3	11	2.8	Yes	No	Pyrophytic	Removal of Fuel
630	Umbellularia californica	Madrone	6	6	25	30	4	3	6	1.5	Yes	No	None	None at this time
631	Umbellularia californica	Bay Laurel	7+6	9	25	30	4	3	9	2.3	Yes	No	Pyrophytic	Removal of Fuel
632	Umbellularia californica	Bay Laurel	6	6	25	24	4	3	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
633	Arbutus menziesii	Madrone	12	12	30	36	4	3	12	3.0	Yes	No	None	None at this time

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Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
634	Quercus agrifolia	Coast Live Oak	14	14	25	44	4	3	14	3.5	Yes	No	None	None at this time
635	Quercus agrifolia	Coast Live Oak	6	6	18	30	3	3	6	1.5	Yes	No	None	None at this time
636	Umbellularia californica	Bay Laurel	8+8	11	25	14	4	3	11	2.8	Yes	No	Pyrophytic	Removal of Fuel
638	Quercus agrifolia	Coast Live Oak	6	6	22	24	4	2	6	1.5	Yes	No	None	None at this time
* 639	Quercus agrifolia	Coast Live Oak	9	9	25	32	4	3	9	2.3	Yes	No	None	None at this time
641	Quercus agrifolia	Coast Live Oak	10	10	30	30	2	3	10	2.5	Yes	No	None	None at this time
642	Quercus agrifolia	Coast Live Oak	6	6	22	24	4	2	6	1.5	Yes	No	None	None at this time
643	Quercus agrifolia	Coast Live Oak	17	17	40	50	4	3	17	4.3	Yes	No	None	None at this time
644	Quercus agrifolia	Coast Live Oak	14	14	40	42	3	3	14	3.5	Yes	No	None	None at this time
645	Quercus agrifolia	Coast Live Oak	16	16	40	50	4	3	16	4.0	Yes	No	None	None at this time
646	Quercus agrifolia	Coast Live Oak	6	6	15	16	2	3	6	1.5	Yes	No	None	None at this time
647	Quercus agrifolia	Coast Live Oak	8	8	18	24	3	2	8	2.0	Yes	No	None	None at this time
648	Umbellularia californica	Bay Laurel	9+10	13	22	40	4	3	13	3.3	Yes	No	Pyrophytic	Removal of Fuel
649	Quercus agrifolia	Coast Live Oak	13	13	35	42	4	2	13	3.3	Yes	No	None	None at this time
650	Quercus agrifolia	Coast Live Oak	14	14	40	60	4	3	14	3.5	Yes	No	None	None at this time
651	Arctostaphylos manzanita	Manzanita	7	7	25	20	3	3	7	1.8	Yes	No	None	None at this time
652	Quercus agrifolia	Coast Live Oak	11+11	16	35	40	4	3	16	4.0	Yes	No	None	None at this time
653	Quercus agrifolia	Coast Live Oak	9+5+5	11	25	30	4	3	11	2.8	Yes	No	None	None at this time
654	Quercus agrifolia	Coast Live Oak	10	10	22	36	4	3	10	2.5	Yes	No	None	None at this time
655	Quercus agrifolia	Coast Live Oak	8	8	25	36	3	3	8	2.0	Yes	No	None	None at this time
656	Quercus agrifolia	Coast Live Oak	9	9	25	40	3	3	9	2.3	Yes	No	None	None at this time
657	Quercus kelloggii	Black OaK	10	10	20	30	4	3	10	2.5	Yes	No	None	None at this time
658	Quercus agrifolia	Coast Live Oak	7	7	25	28	3	3	7	1.8	Yes	No	None	None at this time
659	Umbellularia californica	Bay Laurel	6	6	30	24	4	3	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
660	Quercus agrifolia	Coast Live Oak	12	12	20	32	4	3	12	3.0	Yes	No	None	None at this time
661	Quercus agrifolia	Coast Live Oak	9	9	35	30	4	3	9	2.3	Yes	No	None	None at this time
662	Quercus agrifolia	Coast Live Oak	14	14	25	50	4	3	14	3.5	Yes	No	None	None at this time
663	Quercus agrifolia	Coast Live Oak	14	14	25	40	4	3	14	3.5	Yes	No	None	None at this time
664	Quercus agrifolia	Coast Live Oak	13	13	30	42	4	3	13	3.3	Yes	No	None	None at this time
665	Quercus agrifolia	Coast Live Oak	16	16	35	40	4	3	16	4.0	Yes	No	None	None at this time
666	Quercus agrifolia	Coast Live Oak	16	16	40	36	4	3	16	4.0	Yes	No	LOT #8	None at this time
667	Quercus agrifolia	Coast Live Oak	8+9+5+4	14	30	32	4	3	14	3.5	Yes	No	LOT #8	None at this time
668	Quercus agrifolia	Coast Live Oak	10+10	14	15	50	4	3	14	3.5	Yes	No	LOT #8	None at this time

*** See End of Table A for Trees 640A&B**

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
669	Quercus agrifolia	Coast Live Oak	13	13	30	32	4	3	13	3.3	Yes	No	LOT #8	None at this time
670	Quercus agrifolia	Coast Live Oak	10+17	20	40	20	4	3	20	5.0	Yes	No	None	None at this time
671	Umbellularia californica	Bay Laurel	6	6	16	30	4	3	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
672	Umbellularia californica	Bay Laurel	6	6	25	24	4	3	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
673	Quercus agrifolia	Coast Live Oak	12	12	21	30	4	3	12	3.0	Yes	No	None	None at this time
674	Quercus agrifolia	Coast Live Oak	19	19	45	44	4	2	19	4.8	Yes	No	None	None at this time
675	Quercus agrifolia	Coast Live Oak	6+9+14	18	35	40	4	3	18	4.5	Yes	No	None	None at this time
676	Quercus agrifolia	Coast Live Oak	13+15+16	26	40	60	4	2	26	6.5	Yes	No	None	None at this time
677	Quercus agrifolia	Coast Live Oak	18+14	23	14	56	4	1	23	5.8	No	No	None	Remove due to Condition
678	Quercus agrifolia	Coast Live Oak	7+7+5	11	12	24	4	3	11	2.8	Yes	No	None	None at this time
679	Quercus agrifolia	Coast Live Oak	15	15	12	24	3	3	15	3.8	Yes	No	None	None at this time
680	Quercus agrifolia	Coast Live Oak	13+9	16	40	40	4	1	16	4.0	No	No	None	Remove due to Condition
681	Quercus agrifolia	Coast Live Oak	8	8	35	28	4	3	8	2.0	Yes	No	None	None at this time
682	Quercus agrifolia	Coast Live Oak	7+9+15	19	40	42	4	3	19	4.8	Yes	No	None	None at this time
683	Quercus agrifolia	Coast Live Oak	15	15	40	32	4	2	15	3.8	Yes	No	None	None at this time
684	Quercus agrifolia	Coast Live Oak	7	7	18	24	4	2	7	1.8	Yes	No	None	None at this time
685	Quercus agrifolia	Coast Live Oak	11	11	35	36	2	3	11	2.8	Yes	No	None	None at this time
686	Quercus agrifolia	Coast Live Oak	10	10	35	32	4	3	10	2.5	Yes	No	None	None at this time
687	Umbellularia californica	Bay Laurel	10	10	40	28	4	3	10	2.5	Yes	No	Pyrophytic	Removal of Fuel
688	Quercus agrifolia	Coast Live Oak	9	9	35	24	4	3	9	2.3	Yes	No	None	None at this time
689	Quercus agrifolia	Coast Live Oak	7	7	20	30	4	3	7	1.8	Yes	No	None	None at this time
690	Quercus kelloggii	Black Oak	14	14	35	30	4	3	14	3.5	Yes	No	None	None at this time
691	Quercus agrifolia	Coast Live Oak	10	10	25	28	4	3	10	2.5	Yes	No	None	None at this time
692	Quercus kelloggii	Black Oak	13	13	40	44	4	3	13	3.3	Yes	No	None	None at this time
693	Quercus agrifolia	Coast Live Oak	10+10	14	40	42	4	3	14	3.5	Yes	No	None	None at this time
694	Quercus agrifolia	Coast Live Oak	6	6	25	24	4	2	6	1.5	Yes	No	None	None at this time
695	Umbellularia californica	Bay Laurel	18	18	40	28	4	3	18	4.5	Yes	No	Pyrophytic	Removal of Fuel
696	Umbellularia californica	Bay Laurel	2+4+5+5+6+7	12	20	36	4	2	12	3.0	Yes	No	Pyrophytic	Removal of Fuel
697	Umbellularia californica	Bay Laurel	12	12	40	30	4	2	12	3.0	Yes	No	Pyrophytic	Removal of Fuel
698	Umbellularia californica	Bay Laurel	19+6+5+3	21	40	44	3	2	21	5.3	Yes	No	Pyrophytic	Removal of Fuel
699	Umbellularia californica	Bay Laurel	8	6	35	30	4	2	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
700	Umbellularia californica	Bay Laurel	6	6	25	24	4	2	6	1.5	Yes	No	Pyrophytic	Removal of Fuel
701	Quercus agrifolia	Coast Live Oak	16	16	35	40	4	3	16	4.0	Yes	No	None	None at this time

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Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
702	Quercus kelloggii	Black Oak	14+8	16	25	50	4	3	16	4.0	Yes	No	None	None at this time
703	Quercus agrifolia	Coast Live Oak	12+12+13	21	14	50	4	3	21	5.3	Yes	No	None	None at this time
704	Quercus kelloggii	Black Oak	22	22	40	42	4	3	22	5.5	Yes	No	None	None at this time
705	Quercus kelloggii	Black Oak	17	17	40	50	4	3	17	4.3	Yes	No	None	None at this time
706	Quercus kelloggii	Black Oak	10	10	35	24	4	3	10	2.5	Yes	No	None	None at this time
707	Umbellularia californica	Bay Laurel	7+5	9	35	28	4	3	9	2.3	Yes	No	Pyrophytic	Removal of Fuel
708	Umbellularia californica	Bay Laurel	7	7	16	30	3	3	7	1.8	Yes	No	Pyrophytic	Removal of Fuel
709	Quercus kelloggii	Black Oak	10	10	35	36	4	1	10	2.5	No	No	None	Remove due to Condition
710	Quercus kelloggii	Black Oak	12	12	35	36	4	3	12	3.0	Yes	No	None	None at this time
711	Umbellularia californica	Bay Laurel	3+6+6+6+10	13	30	32	2	3	13	3.3	Yes	No	Pyrophytic	Removal of Fuel
712	Quercus kelloggii	Black Oak	17	17	40	40	4	2	17	4.3	Yes	No	None	None at this time
713	Umbellularia californica	Bay Laurel	8	8	35	36	4	3	8	2.0	Yes	No	Pyrophytic	Removal of Fuel
714	Umbellularia californica	Bay Laurel	10	10	20	32	2	3	10	2.5	Yes	No	Pyrophytic	Removal of Fuel
715	Quercus agrifolia	Coast Live Oak	15	15	35	50	3	1	15	3.8	No	No	None	Remove due to Condition
716	Quercus kelloggii	California Black Oak	8.5	8.5	38	36	3	3	8.5	2.1	Yes	No	None	None at this time
717	Umbellularia californica	Bay Laurel	6.5	6.5	35	40	3	3	6.5	1.6	Yes	No	Pyrophytic	Removal of Fuel
718	Umbellularia californica	Bay Laurel	7.5	7.5	38	36	3	3	7.5	1.9	Yes	No	Pyrophytic	Removal of Fuel
719	Quercus agrifolia	Coast Live Oak	18.5	18.5	35	40	3	3	18.5	4.6	Yes	No	None	None at this time
720	Quercus kelloggii	California Black Oak	13.5	13.5	40	36	2	3	13.5	3.4	Yes	No	None	None at this time
721	Quercus agrifolia	Coast Live Oak	12	12	35	40	2	2	12	3.0	Yes	No	None	None at this time
722	Umbellularia californica	Bay Laurel	11.5	11.5	30	40	2	2	11.5	2.9	Yes	No	Pyrophytic	Removal of Fuel
723	Umbellularia californica	Bay Laurel	10.5+9.5	14	35	32	3	2	14	3.5	Yes	No	Pyrophytic	Removal of Fuel
724	Arbutus menziesii	Madrone	13.5	13.5	30	48	3	2	13.5	3.4	Yes	No	None	None at this time
725	Quercus agrifolia	Coast Live Oak	14.5+17.5	23	35	48	3	3	23	5.8	Yes	No	None	None at this time
726	Quercus agrifolia	Coast Live Oak	7+9+4.5	12	30	28	3	2	12	3.0	Yes	No	None	None at this time
727	Quercus garryana	Oregon White Oak	10.5	10.5	30	28	2	3	10.5	2.6	Yes	No	None	None at this time
728	Arbutus menziesii	Madrone	17	17	30	32	3	3	17	4.3	Yes	No	None	None at this time
729	Quercus garryana	Oregon White Oak	14	14	35	32	2	3	14	3.5	Yes	No	None	None at this time
730	Umbellularia californica	Bay Laurel	15	15	50	36	4	2	15	3.8	No	No	Pyrophytic	Removal of Fuel
731	Arbutus menziesii	Madrone	15	15	35	32	3	3	15	3.8	Yes	No	None	None at this time
732	Quercus agrifolia	Coast Live Oak	6	6	20	20	3	3	6	1.5	Yes	No	None	None at this time
733	Arbutus menziesii	Madrone	11.5	11.5	25	28	3	3	11.5	2.9	Yes	No	None	None at this time
734	Quercus garryana	Oregon White Oak	7.5	7.5	15	16	2	3	7.5	1.9	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
735	Quercus agrifolia	Coast Live Oak	6	6	15	10	3	2	6	1.5	Yes	No	None	None at this time
736	Quercus agrifolia	Coast Live Oak	10.5+7	13	22	28	3	3	13	3.3	Yes	No	None	None at this time
737	Quercus agrifolia	Coast Live Oak	9.5	9.5	20	28	4	3	9.5	2.4	Yes	No	None	None at this time
738	Quercus agrifolia	Coast Live Oak	15	15	30	40	4	3	15	3.8	Yes	No	None	None at this time
739	Quercus garryana	Oregon White Oak	16	16	40	36	2	3	16	4.0	Yes	No	None	None at this time
740	Quercus garryana	Oregon White Oak	8	8	10	28	2	3	8	2.0	Yes	No	None	None at this time
741	Quercus garryana	Oregon White Oak	7+7	10	25	28	2	2	10	2.5	No	No	None	None at this time
742	Quercus garryana	Oregon White Oak	12.5	12.5	28	32	3	1	12.5	3.1	No	No	None	Remove due to Condition
743	Quercus agrifolia	Coast Live Oak	11.5	11.5	28	32	4	3	11.5	2.9	Yes	No	None	None at this time
744	Quercus agrifolia	Coast Live Oak	12	12	25	24	4	3	12	3.0	Yes	No	LOT #10	None at this time
745	Quercus agrifolia	Coast Live Oak	11	11	25	24	3	3	11	2.8	Yes	No	In Road	Remove for Main Road
746	Quercus garryana	Oregon White Oak	8	8	25	24	2	3	8	2.0	Yes	No	None	None at this time
748	Quercus garryana	Oregon White Oak	6.5	6.5	30	24	2	2	6.5	1.6	Yes	No	In Road	Remove for Main Road
749	Quercus agrifolia	Coast Live Oak	17	17	45	48	3	2	17	4.3	Yes	No	In Road	Remove for Main Road
750	Quercus garryana	Oregon White Oak	12	12	45	36	3	2	12	3.0	Yes	No	In Road	Remove for Main Road
751	Quercus garryana	Oregon White Oak	22	22	40	36	2	3	22	5.5	Yes	No	Moderate	Protection Measures
752	Quercus agrifolia	Coast Live Oak	19.5	19.5	50	54	3	3	19.5	4.9	Yes	No	None	None at this time
753	Quercus garryana	Oregon White Oak	14	14	40	36	2	3	14	3.5	Yes	No	None	None at this time
754	Quercus garryana	Oregon White Oak	9.5	9.5	30	40	3	2	9.5	2.4	No	No	None	None at this time
755	Quercus garryana	Oregon White Oak	25	25	50	36	2	3	25	6.3	Yes	No	None	None at this time
756	Quercus garryana	Oregon White Oak	9	9	25	50	3	3	9	2.3	Yes	No	None	None at this time
757	Quercus agrifolia	Coast Live Oak	13.5+9	16	35	40	3	3	16	4.0	Yes	No	None	None at this time
758	Quercus garryana	Oregon White Oak	19.5+11	22	45	50	3	3	22	5.5	Yes	No	None	None at this time
759	Quercus garryana	Oregon White Oak	14	14	30	40	3	3	14	3.5	Yes	No	None	None at this time
760	Quercus garryana	Oregon White Oak	17	17	45	40	3	3	17	4.3	Yes	No	None	None at this time
761	Quercus garryana	Oregon White Oak	7	7	15	30	2	3	7	1.8	Yes	No	None	None at this time
762	Quercus garryana	Oregon White Oak	11	11	20	36	2	3	11	2.8	Yes	No	None	None at this time
763	Quercus garryana	Oregon White Oak	6+7.5	10	30	40	3	3	10	2.5	Yes	No	None	None at this time
764	Quercus garryana	Oregon White Oak	10+12	16	40	36	2	2	16	4.0	Yes	No	None	None at this time
765	Quercus agrifolia	Oregon White Oak	14.5+9.5+7	19	35	36	3	3	19	4.8	Yes	No	None	None at this time
766	Quercus garryana	Oregon White Oak	7	7	18	32	3	3	7	1.8	Yes	No	None	None at this time
767	Quercus garryana	Oregon White Oak	6.5+6	9	28	18	2	3	9	2.3	Yes	No	None	None at this time
768	Quercus agrifolia	Coast Live Oak	6+16	17	40	40	3	2	17	4.3	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
769	Quercus garryana	Oregon White Oak	6.5	6.5	28	20	3	3	6.5	1.6	Yes	No	None	None at this time
770	Quercus agrifolia	Coast Live Oak	7.5	7.5	35	28	3	4	7.5	1.9	Yes	No	None	None at this time
771	Quercus garryana	Oregon White Oak	8	8	28	24	3	4	8	2.0	Yes	No	None	None at this time
772	Quercus garryana	Oregon White Oak	6.5+6.5	9	28	50	2	4	9	2.3	Yes	No	None	None at this time
773	Quercus garryana	Oregon White Oak	7+9.5	12	30	50	2	3	12	3.0	Yes	No	None	None at this time
774	Quercus agrifolia	Coast Live Oak	14.5	14.5	35	50	3	2	14.5	3.6	Yes	No	None	None at this time
775	Quercus garryana	Oregon White Oak	6	6	15	24	2	2	6	1.5	Yes	No	None	None at this time
776	Quercus garryana	Oregon White Oak	6.5+6	9	25	20	2	4	9	2.3	Yes	No	Low	Protection Measures
777	Quercus garryana	Oregon White Oak	8.5	8.5	30	32	2	3	8.5	2.1	Yes	No	Moderate	Protection Measures
778	Quercus agrifolia	Coast Live Oak	13	13	30	36	4	3	13	3.3	Yes	No	Significant	Protection Measures
779	Quercus agrifolia	Coast Live Oak	11.5+9.5	15	30	40	3	3	15	3.8	Yes	No	None	None at this time
780	Quercus agrifolia	Coast Live Oak	9+4.5	10	25	32	3	3	10	2.5	Yes	No	None	None at this time
781	Quercus garryana	Oregon White Oak	7	7	25	20	2	3	7	1.8	Yes	No	None	None at this time
782	Quercus garryana	Oregon White Oak	6.5	6.5	28	24	3	2	6.5	1.6	No	No	CRZ	Probable Removal
783	Quercus agrifolia	Coast Live Oak	17+7	18	35	40	3	3	18	4.5	Yes	No	CRZ	Probable Removal
784	Quercus agrifolia	Coast Live Oak	6.5	6.5	15	12	4	3	6.5	1.6	Yes	No	In Road	Remove for Main Road
785	Quercus agrifolia	Coast Live Oak	6	6	14	8	4	3	6	1.5	Yes	No	In Road	Remove for Main Road
786	Quercus agrifolia	Coast Live Oak	12	12	28	36	4	3	12	3.0	Yes	No	CRZ	Probable Removal
787	Quercus agrifolia	Coast Live Oak	13	13	15	20	3	3	13	3.3	Yes	No	In Road	Remove for Main Road
788	Quercus agrifolia	Coast Live Oak	8.5	8.5	20	24	4	1	8.5	2.1	Yes	No	Low	Remove due to Condition
789	Quercus agrifolia	Coast Live Oak	19.5	19.5	35	40	3	3	19.5	4.9	Yes	No	Low	Protection Measures
790	Quercus agrifolia	Coast Live Oak	12	12	35	36	3	3	12	3.0	Yes	No	None	None at this time
791	Quercus agrifolia	Coast Live Oak	18.5	18.5	35	60	2	3	18.5	4.6	Yes	No	None	None at this time
792	Quercus agrifolia	Coast Live Oak	13	13	30	36	3	2	13	3.3	Yes	No	None	None at this time
793	Quercus agrifolia	Coast Live Oak	11	11	30	40	3	3	11	2.8	Yes	No	None	None at this time
794	Quercus agrifolia	Coast Live Oak	11.5	11.5	25	44	3	3	11.5	2.9	Yes	No	None	None at this time
795	Quercus lobata	Valley Oak	16	16	40	44	3	3	16	4.0	Yes	No	None	None at this time
796	Quercus agrifolia	Coast Live Oak	12	12	30	24	4	3	12	3.0	Yes	No	None	None at this time
797	Quercus garryana	Oregon White Oak	8+5	9	25	28	4	3	9	2.3	Yes	No	None	None at this time
798	Quercus lobata	Valley Oak	23	23	40	40	3	3	23	5.8	Yes	No	None	None at this time
799	Quercus agrifolia	Coast Live Oak	6.5	6.5	25	24	3	2	6.5	1.6	Yes	No	None	None at this time
800	Quercus lobata	Valley Oak	7	7	18	16	4	3	7	1.8	Yes	No	None	None at this time
801	Quercus agrifolia	Coast Live Oak	6.5	6.5	14	16	4	3	6.5	1.6	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
802	Quercus agrifolia	Coast Live Oak	6.5+6.5	9	18	18	4	3	9	2.3	Yes	No	None	None at this time
803	Quercus agrifolia	Coast Live Oak	7	7	15	12	4	3	7	1.8	Yes	No	None	None at this time
804	Quercus agrifolia	Coast Live Oak	11	11	30	28	4	3	11	2.8	Yes	No	None	None at this time
805	Quercus kelloggii	Black Oak	9	9	35	32	4	3	9	2.3	Yes	No	None	None at this time
806	Quercus lobata	Valley Oak	7+6	9	15	20	3	3	9	2.3	Yes	No	None	None at this time
807	Quercus kelloggii	Black Oak	11	11	30	48	3	3	11	2.8	Yes	No	None	None at this time
809	Quercus agrifolia	Coast Live Oak	12.5	12.5	28	24	1	2	12.5	3.1	Yes	No	None	Remove due to Condition
810	Quercus agrifolia	Coast Live Oak	11.5	11.5	28	28	3	1	11.5	2.9	Yes	No	None	Remove due to Condition
811	Quercus agrifolia	Coast Live Oak	16	16	28	28	3	3	16	4.0	Yes	No	None	None at this time
812	Quercus agrifolia	Coast Live Oak	16.5	16.5	20	32	3	3	16.5	4.1	Yes	No	None	None at this time
813	Quercus agrifolia	Coast Live Oak	15.5	15.5	30	2	3	3	15.5	3.9	Yes	No	None	None at this time
814	Quercus agrifolia	Coast Live Oak	16	16	35	32	3	3	16	4.0	Yes	No	None	None at this time
815	Quercus lobata	Valley Oak	7.5	7.5	20	28	2	3	7.5	1.9	Yes	No	None	None at this time
816	Quercus agrifolia	Coast Live Oak	16.5	16.5	35	36	3	3	16.5	4.1	Yes	No	Moderate	Protection Measures
817	Arbutus menziesii	Madrone	9.5	9.5	20	40	4	3	9.5	2.4	Yes	No	None	None at this time
818	Quercus agrifolia	Coast Live Oak	11.5+12	17	25	32	3	3	17	4.3	Yes	No	None	None at this time
819	Arbutus menziesii	Madrone	8	8	22	16	4	3	8	2.0	Yes	No	None	None at this time
820	Quercus agrifolia	Coast Live Oak	11+4	12	25	28	3	3	12	3.0	Yes	No	None	None at this time
821	Arbutus menziesii	Madrone	8	8	18	16	4	3	8	2.0	Yes	No	None	None at this time
822	Quercus agrifolia	Coast Live Oak	6	6	12	12	4	3	6	1.5	Yes	No	None	None at this time
823	Arbutus menziesii	Madrone	9.5	9.5	18	16	4	3	9.5	2.4	Yes	No	None	None at this time
824	Quercus agrifolia	Coast Live Oak	9.5	9.5	25	24	4	3	9.5	2.4	Yes	No	None	None at this time
825	Quercus agrifolia	Coast Live Oak	13.5	13.5	28	28	3	3	13.5	3.4	Yes	No	None	None at this time
826	Arbutus menziesii	Madrone	8	8	20	16	4	3	8	2.0	Yes	No	None	None at this time
827	Arctostaphylos sp.	Manzanita	7+5.5	9	18	12	2	3	9	2.3	Yes	No	None	None at this time
828	Quercus agrifolia	Coast Live Oak	14.5	14.5	30	32	3	3	14.5	3.6	Yes	No	None	None at this time
829	Arbutus menziesii	Madrone	7	7	18	32	4	3	7	1.8	Yes	No	None	None at this time
830	Arbutus menziesii	Madrone	8+4.5	9	25	24	4	3	9	2.3	Yes	No	None	None at this time
831	Arbutus menziesii	Madrone	6.5+6	9	20	24	4	3	9	2.3	Yes	No	None	None at this time
832	Quercus agrifolia	Coast Live Oak	9	9	25	24	4	3	9	2.3	Yes	No	None	None at this time
833	Quercus lobata	Valley Oak	9	9	32	24	3	3	9	2.3	Yes	No	None	None at this time
835	Quercus lobata	Valley Oak	28	28	50	60	3	2	28	7.0	Yes	No	None	None at this time
836	Umbellularia californica	Bay Laurel	8+9+5+5+8+8+7+6.5+5+8	22	30	32	3	2	22	5.5	Yes	No	Pyrophytic	Removal of Fuel

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Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
837	Quercus lobata	Valley Oak	13+17	21	32	28	3	3	21	5.3	Yes	No	None	None at this time
838	Quercus lobata	Valley Oak	13.5	13.5	35	36	3	3	13.5	3.4	Yes	No	None	None at this time
839	Arbutus menziesii	Madrone	7+3	8	20	24	4	3	8	2.0	Yes	No	None	None at this time
840	Quercus agrifolia	Coast Live Oak	6	6	14	12	4	3	6	1.5	Yes	No	None	None at this time
841	Quercus agrifolia	Coast Live Oak	11	11	22	32	3	3	11	2.8	Yes	No	None	None at this time
842	Quercus agrifolia	Coast Live Oak	17+17+9	26	35	65	3	3	26	6.5	Yes	No	None	None at this time
843	Quercus lobata	Valley Oak	10+13	16	40	48	2	3	16	4.0	Yes	No	None	None at this time
844	Quercus lobata	Valley Oak	9.5	9.5	30	28	2	2	9.5	2.4	Yes	No	None	None at this time
845	Quercus lobata	Valley Oak	17	17	40	40	2	3	17	4.3	Yes	No	None	None at this time
846	Quercus lobata	Valley Oak	12.5	12.5	30	40	2	3	12.5	3.1	Yes	No	None	None at this time
847	Quercus lobata	Valley Oak	7.5	7.5	25	20	2	3	7.5	1.9	Yes	No	None	None at this time
848	Quercus agrifolia	Coast Live Oak	6+11.5	13	35	40	3	2	13	3.3	Yes	No	None	None at this time
849	Arbutus menziesii	Madrone	12.5+10	16	40	48	4	3	16	4.0	Yes	No	None	None at this time
850	Arbutus menziesii	Madrone	11.5	11.5	25	32	4	3	11.5	2.9	Yes	No	None	None at this time
851	Quercus lobata	Valley Oak	13+14	19	40	40	3	3	19	4.8	Yes	No	None	None at this time
852	Arbutus menziesii	Madrone	7	7	14	20	4	3	7	1.8	Yes	No	None	None at this time
853	Arbutus menziesii	Madrone	10.5	10.5	10	16	4	3	10.5	2.6	Yes	No	None	None at this time
854	Quercus agrifolia	Coast Live Oak	14	14	25	52	2	3	14	3.5	Yes	No	None	None at this time
855	Quercus kelloggii	Black Oak	8	8	25	44	3	3	8	2.0	Yes	No	None	None at this time
856	Quercus agrifolia	Coast Live Oak	11	11	12	28	2	3	11	2.8	Yes	No	None	None at this time
857	Quercus agrifolia	Coast Live Oak	14	14	35	32	3	2	14	3.5	Yes	No	None	None at this time
858	Quercus agrifolia	Coast Live Oak	14.5+18	23	28	52	3	3	23	5.8	Yes	No	None	None at this time
859	Quercus kelloggii	Black Oak	7	7	18	32	4	3	7	1.8	Yes	No	None	None at this time
860	Quercus agrifolia	Coast Live Oak	9.5+7+5.5	13	25	32	3	3	13	3.3	Yes	No	None	None at this time
861	Quercus agrifolia	Coast Live Oak	7.5	7.5	20	24	4	3	7.5	1.9	Yes	No	None	None at this time
862	Quercus agrifolia	Coast Live Oak	7	7	18	18	3	3	7	1.8	Yes	No	None	None at this time
863	Quercus agrifolia	Coast Live Oak	8	8	25	20	3	3	8	2.0	Yes	No	Significant	Protection Measures
864	Quercus agrifolia	Coast Live Oak	7	7	20	20	3	3	7	1.8	Yes	No	None	None at this time
865	Quercus agrifolia	Coast Live Oak	7	7	15	12	4	3	7	1.8	Yes	No	None	None at this time
866	Quercus agrifolia	Coast Live Oak	6	6	14	12	4	3	6	1.5	Yes	No	LOT #9	None at this time
867	Quercus agrifolia	Coast Live Oak	12	12	25	28	3	3	12	3.0	Yes	No	CRZ	Probable Removal
868	Quercus agrifolia	Coast Live Oak	8.5+6	10	16	24	2	3	10	2.5	Yes	No	None	None at this time
869	Quercus agrifolia	Coast Live Oak	14.5	14.5	30	28	3	3	14.5	3.6	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
870	Arbutus menziesii	Madrone	7.5+3.5	8	16	24	3	3	8	2.0	Yes	No	None	None at this time
871	Quercus agrifolia	Coast Live Oak	13	13	26	28	3	3	13	3.3	Yes	No	None	None at this time
872	Quercus agrifolia	Coast Live Oak	7	7	18	24	4	3	7	1.8	Yes	No	None	None at this time
873	Quercus agrifolia	Coast Live Oak	6	6	14	16	4	3	6	1.5	Yes	No	None	None at this time
874	Quercus agrifolia	Coast Live Oak	8.5	8.5	16	20	3	3	8.5	2.1	Yes	No	None	None at this time
875	Quercus agrifolia	Coast Live Oak	8	8	18	28	3	3	8	2.0	Yes	No	None	None at this time
876	Arbutus menziesii	Madrone	7.5	7.5	18	24	4	3	7.5	1.9	Yes	No	None	None at this time
877	Quercus kelloggii	Black Oak	6.5	6.5	18	18	4	3	6.5	1.6	Yes	No	None	None at this time
878	Quercus agrifolia	Coast Live Oak	6+6+3.5	9	15	22	3	3	9	2.3	Yes	No	None	None at this time
879	Quercus lobata	Valley Oak	6	6	28	24	2	3	6	1.5	Yes	No	None	None at this time
880	Quercus kelloggii	Black Oak	6.5	6.5	12	22	4	3	6.5	1.6	Yes	No	None	None at this time
881	Arbutus menziesii	Madrone	7+3.5	8	15	24	3	3	8	2.0	Yes	No	None	None at this time
882	Quercus kelloggii	Black Oak	20	20	35	36	3	3	20	5.0	Yes	No	None	None at this time
883	Quercus agrifolia	Coast Live Oak	6.5	6.5	20	24	3	3	6.5	1.6	Yes	No	None	None at this time
884	Quercus lobata	Valley Oak	17+21	27	36	50	3	3	27	6.8	Yes	No	None	None at this time
885	Quercus agrifolia	Coast Live Oak	14.5+14	20	30	36	3	2	20	5.0	Yes	No	None	None at this time
886	Quercus agrifolia	Coast Live Oak	11.5	11.5	35	40	3	2	11.5	2.9	Yes	No	None	None at this time
887	Quercus agrifolia	Coast Live Oak	14	14	30	32	3	3	14	3.5	Yes	No	None	None at this time
888	Quercus agrifolia	Coast Live Oak	12.5+10.5+5+11+9.5	22	30	48	3	3	22	5.5	Yes	No	None	None at this time
889	Quercus agrifolia	Coast Live Oak	11	11	20	20	4	2	11	2.8	No	No	None	None at this time
890	Quercus agrifolia	Coast Live Oak	6	6	14	20	4	3	6	1.5	Yes	No	None	None at this time
891	Arctostaphylos sp.	Manzanita	7+4+3	9	12	24	4	3	9	2.3	Yes	No	Significant	Protection Measures
892	Arctostaphylos sp.	Manzanita	8.5+4	9	16	26	4	3	9	2.3	Yes	No	None	None at this time
893	Quercus agrifolia	Coast Live Oak	12	12	30	32	4	4	12	3.0	Yes	No	None	None at this time
894	Quercus kelloggii	Black Oak	6.5	6.5	18	28	3	3	6.5	1.6	Yes	No	In Road	Remove for Main Road
895	Umbellularia californica	Bay Laurel	9	9	25	24	3	3	9	2.3	Yes	No	Pyrophytic	Removal of Fuel
896	Quercus agrifolia	Coast Live Oak	7	7	25	36	3	3	7	1.8	Yes	No	None	None at this time
897	Arbutus menziesii	Madrone	7	7	20	40	4	3	7	1.8	Yes	No	None	None at this time
898	Quercus agrifolia	Coast Live Oak	7.5	7.5	16	24	2	3	7.5	1.9	Yes	No	None	None at this time
899	Quercus agrifolia	Coast Live Oak	11.5+11+11.5	20	35	36	3	3	20	5.0	Yes	No	None	None at this time
900	Quercus kelloggii	Black Oak	6.5+5.5+8.5	12	25	32	2	3	12	3.0	Yes	No	None	None at this time
901	Quercus kelloggii	Black Oak	12+11	16	25	32	2	3	16	4.0	Yes	No	None	None at this time
902	Quercus agrifolia	Coast Live Oak	18+10+4	21	35	36	2	2	21	5.3	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

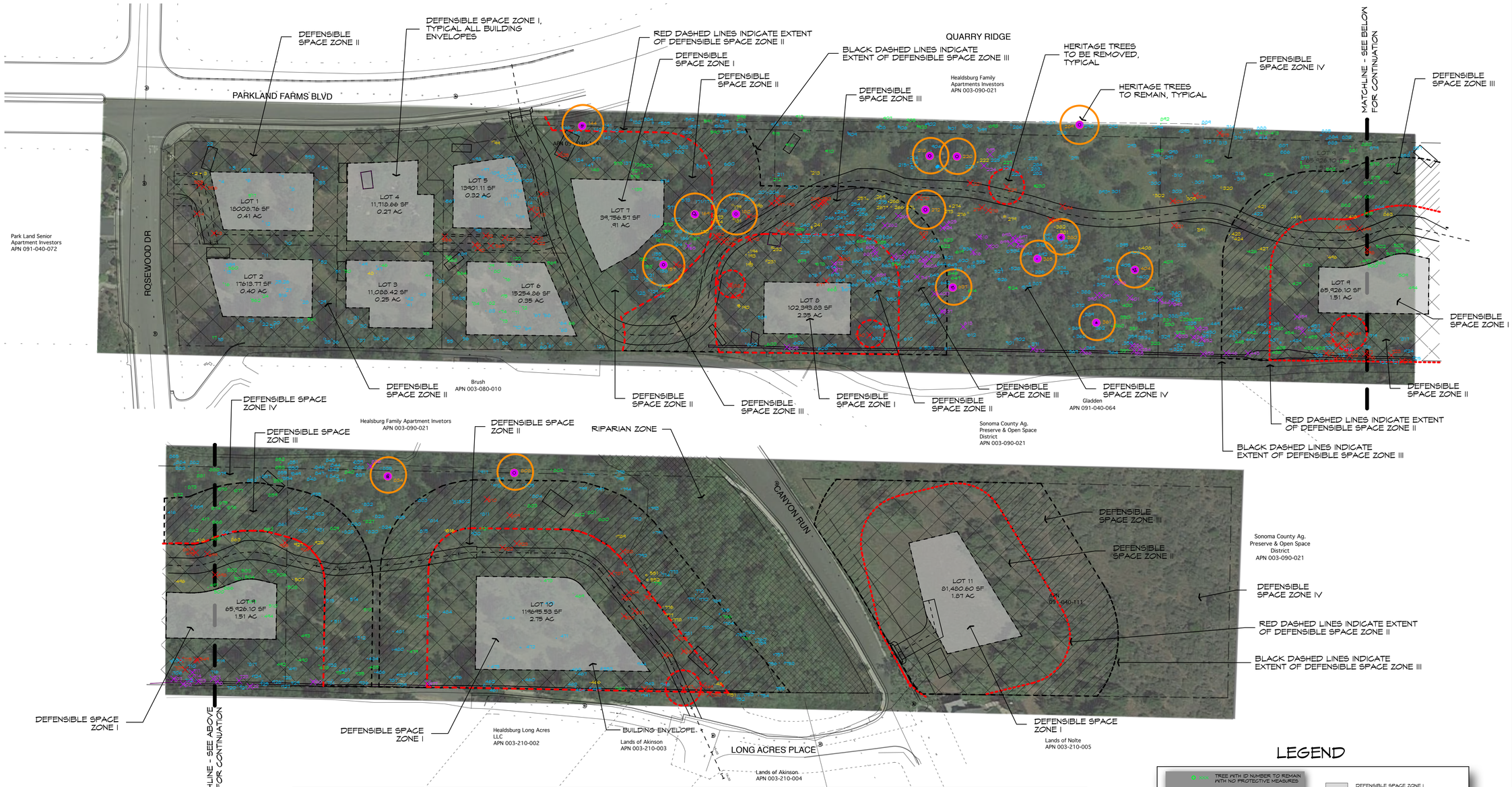
Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
903	Quercus agrifolia	Coast Live Oak	11.5+9+9.5+7.5	19	35	36	2	2	19	4.8	Yes	No	None	None at this time
904	Quercus kelloggii	Black Oak	11	11	28	44	2	3	11	2.8	Yes	No	None	None at this time
905	Quercus kelloggii	Black Oak	9+5+7	12	18	32	2	2	12	3.0	Yes	No	None	None at this time
906	Quercus kelloggii	Black Oak	10+11+4	15	25	28	3	3	15	3.8	Yes	No	None	None at this time
907	Quercus agrifolia	Coast Live Oak	8	8	18	32	3	3	8	2.0	Yes	No	None	None at this time
908	Quercus kelloggii	Black Oak	13.5+12	18	22	32	2	3	18	4.5	Yes	No	None	None at this time
909	Quercus agrifolia	Coast Live Oak	12+10	16	20	28	3	2	16	4.0	Yes	No	None	None at this time
910	Quercus agrifolia	Coast Live Oak	5+7+5.5+6.5	12	14	18	3	3	12	3.0	Yes	No	None	None at this time
911	Quercus agrifolia	Coast Live Oak	7	7	12	20	3	3	7	1.8	Yes	No	None	None at this time
912	Quercus agrifolia	Coast Live Oak	8	8	15	24	3	3	8	2.0	Yes	No	None	None at this time
913	Quercus agrifolia	Coast Live Oak	28+8	29	28	36	2	3	29	7.3	Yes	No	None	None at this time
914	Quercus agrifolia	Coast Live Oak	13+5.5	14	25	36	3	3	14	3.5	No	No	None	None at this time
915	Quercus agrifolia	Coast Live Oak	8.5	8.5	16	20	3	3	8.5	2.1	Yes	No	None	None at this time
916	Quercus agrifolia	Coast Live Oak	8+6	10	15	28	3	3	10	2.5	Yes	No	None	None at this time
917	Quercus lobata	Valley Oak	24	24	48	55	3	3	24	6.0	Yes	No	None	None at this time
918	Quercus kelloggii	Black Oak	7	7	25	26	4	3	7	1.8	Yes	No	None	None at this time
919	Quercus kelloggii	Black Oak	6	6	22	24	4	3	6	1.5	Yes	No	None	None at this time
920	Quercus agrifolia	Coast Live Oak	11	11	25	28	4	3	11	2.8	Yes	No	None	None at this time
921	Quercus agrifolia	Coast Live Oak	6	6	18	16	3	3	6	1.5	Yes	No	None	None at this time
922	Quercus kelloggii	Black Oak	8	8	25	24	4	3	8	2.0	Yes	No	In Road	Remove for Main Road
923	Quercus agrifolia	Coast Live Oak	6.5	6.5	20	22	4	3	6.5	1.6	Yes	No	In Road	Remove for Main Road
924	Quercus kelloggii	Black Oak	7.5	7.5	16	24	4	3	7.5	1.9	Yes	No	None	None at this time
925	Quercus agrifolia	Coast Live Oak	6.5	6.5	14	24	4	3	6.5	1.6	Yes	No	None	None at this time
926	Quercus agrifolia	Coast Live Oak	9.5	9.5	18	30	3	3	9.5	2.4	Yes	No	In Road	Remove for Main Road
927	Quercus kelloggii	Black Oak	8.5	8.5	20	28	4	3	8.5	2.1	Yes	No	Significant	Protection Measures
928	Quercus kelloggii	Black Oak	7	7	20	24	4	3	7	1.8	Yes	No	Significant	Protection Measures
929	Quercus agrifolia	Coast Live Oak	11+10	15	25	28	3	3	15	3.8	Yes	No	CRZ	Probable Removal
930	Quercus agrifolia	Coast Live Oak	9	9	20	28	3	3	9	2.3	Yes	No	None	None at this time
931	Arbutus menziesii	Madrone	7	7	15	24	4	3	7	1.8	Yes	No	None	None at this time
932	Quercus agrifolia	Coast Live Oak	12.5+7	14	30	32	2	3	14	3.5	Yes	No	None	None at this time
933	Arbutus menziesii	Madrone	6.5	6.5	24	24	4	3	6.5	1.6	Yes	No	None	None at this time
934	Arbutus menziesii	Madrone	5.5+6.5	9	24	24	4	3	9	2.3	Yes	No	None	None at this time
935	Arbutus menziesii	Madrone	11.5+7	13	32	28	4	3	13	3.3	Yes	No	None	None at this time

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table A (All Trees except Heritage Trees)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
936	Quercus kelloggii	Black Oak	6	6	18	24	4	3	6	1.5	Yes	No	None	None at this time
640A	Umbellularia californica	Bay Laurel	10	10	30	32	4	3	10	2.5	Yes	No	Pyrophytic	Removal of Fuel
640B	Umbellularia californica	Bay Laurel	10	10	30	32	4	3	10	2.5	Yes	No	Pyrophytic	Removal of Fuel

Parkland Farms Subdivision, Phase 11
Vegetation Management and Enhancement Plan
Table B (Heritage Trees Only)

Tree #	Species	Common Name	Trunk (dbh ± inches)	Equivalent Single Trunk Diameter (Inches)	Crown Height ± Feet	Crown Diameter ± Feet	Health Rating (1-5)	Structure Rating (1-4)	Tree Protection Zone (TPZ) (Radius in Feet)	Critical Root Zone (CRZ) (Feet)	Suitable To Be Preserved?	Heritage Tree?	Construction Impact?	Recommendations
144	Quercus agrifolia	Coast Live Oak	14+18+21	31	40	60	4	3	31	7.75	Yes	Yes	None	None at this time
157	Quercus agrifolia	Coast Live Oak	32	32	40	60	4	3	32	8	Yes	Yes	Significant	Observation
169	Quercus agrifolia	Coast Live Oak	38+21	43	40	60	4	3	43	10.8	Yes	Yes	Significant	Observation
180	Quercus agrifolia	Coast Live Oak	32	32	40	50	4	3	32	8	Yes	Yes	Significant	Observation
188	Quercus agrifolia	Coast Live Oak	13+38	40	40	60	4	3	40	10	Yes	Yes	CRZ	Probable Removal
218	Quercus agrifolia	Coast Live Oak	31	31	35	60	4	3	31	5.25	Yes	Yes	Moderate	Observation
220	Quercus agrifolia	Coast Live Oak	36	36	30	60	4	3	36	9	Yes	Yes	Moderate	Observation
229	Quercus agrifolia	Coast Live Oak	15+16+22	31	40	60	4	3	31	5.25	Yes	Yes	In Road	Remove for Main Road
272	Quercus agrifolia	Coast Live Oak	38	38	35	50	4	3	38	9.5	Yes	Yes	Significant	Observation
289	Quercus kellogii	Black Oak	35	35	40	40	4	3	35	8.75	Yes	Yes	None	None at this time
361	Quercus kellogii	Black Oak	540	31	40	50	4	3	31	5.25	Yes	Yes	None	None at this time
380	Quercus agrifolia	Coast Live Oak	16+20+20	33	40	50	4	3	33	8.25	Yes	Yes	Significant	Observation
385	Quercus kellogii	Black Oak	16+20+20	33	49	55	4	3	33	8.25	Yes	Yes	None	None at this time
404	Quercus agrifolia	Coast Live Oak	12+12+15+24+18	38	40	55	4	3	38	9.5	Yes	Yes	None	None at this time
540	Quercus agrifolia	Coast Live Oak	9+17+18+13	34	40	30	3	2	34	8.5	Yes	Yes	None	Remove due to Condition
549	Umbellularia californica	Bay Laurel	23+13+11+16	33	40	30	2	*1*	33	8.25	No	Yes	None	Remove due to Condition
637	Arbutus menziesii	Madrone	10+14+28	33	35	60	2	3	33	8.25	Yes	Yes	None	None at this time
747	Quercus agrifolia	Coast Live Oak	9+11+28	31	40	40	3	3	31	7.75	Yes	Yes	In Road	Remove for Main Road
808	Quercus kelloggii	Black Oak	36	36	50	60	3	3	36	9	Yes	Yes	None	None at this time
834	Quercus agrifolia	Coast Live Oak	22+15+15+14+7	34	25	48	2	3	34	8.5	Yes	Yes	None	None at this time



VEGETATION MANAGEMENT AND ENHANCEMENT PLAN

OVERALL PROPERTY: Performance of the following general vegetation management measures related to the overall property shall be performed and verified as complete prior to final of the grading permit.

1. Identify biological elements and protected plants and implement measures as defined in the Healdsburg Area A Specific Plan EIR.
2. Assess presence of invasive plants, eliminate as required.
3. Assess and remove ground fuels, ladder fuels, provide canopy separation.
4. Identify and remove trees dead, dying, or with structural issues.

LOT SPECIFIC ZONES : Prior to issuance of building permit, individual lot assessments of vegetation shall be performed to evaluate impacts related to a proposed custom building footprint, and findings consistent with this VMEP, shall be provided to and accepted by the City of Healdsburg prior to issuance of any building permit.

Implementation of vegetation management measures identified in the individual assessment of vegetation including fire management requirements shall be completed prior to occupancy of any structure.

In addition to overall management measures, the following supplemental management measures shall be applied to each specific zone within each lot. Deferred measures to be completed at the time of individual lot development are noted.

Defensible Space Zone I, Building Envelope: Subject to overall site vegetation management plan measures; implementation of lot specific measures to be deferred to lot development and completed prior to occupancy.

1. Inventory all trees 6"dbh and above by type, size.
2. Tag and survey tree locations.
3. Evaluate tree condition, health, and structural integrity.
4. Identify and remove trees dead, dying or with structural issues.
5. Identify and locate all heritage trees by type, size. Define heritage tree protection zones within each building envelope.
6. All trees located in Defensible Space Zone 1 except heritage trees, are not protected and subject to removal as a result of building placement and associated site improvements.

Defensible Space Zone II, 50' Beyond Building Envelope: Subject to overall site vegetation management plan measures; implementation of lot specific measures to be deferred to lot development completed prior to occupancy.

1. All trees, 6" diameter and above, shall be identified and surveyed by type, size at time of individual lot development.
2. Evaluate condition, health, and structural integrity of all trees in Defensible Space Zone II.
3. Identify and remove trees dead, dying or with structural issues.
4. Identify and locate all heritage trees by type, size. Define heritage tree protection zones within Defensible Space Zone II.
5. All trees located in Defensible Space Zone II except heritage trees are not protected and subject to removal as a result of proximity to building placement and associated improvements.

Defensible Space Zone III, 50' to 100' Building Envelope

1. Identify and locate all heritage trees by type, size.
2. Provide description and nature of existing vegetation.
3. Vegetation management per overall property measures.

Defensible Space Zone IV, 100' Plus Beyond Building Envelope

1. Identify and locate all heritage trees by type, size.
2. Provide description and nature of existing vegetation.
3. Vegetation management per overall property measures.

Riparian Area

1. Identify biological elements and protected plants defined in the Healdsburg Area A Specific Plan EIR
2. Assess presence of invasive non-native plants, eliminate as required.
3. All trees including dead, dying trees shall remain undisturbed as wildlife habitat (subject to arborist approval).

LEGEND

- XXX — TREE WITH ID NUMBER TO REMAIN WITH NO PROTECTIVE MEASURES
- XXX — TREE WITH ID NUMBER TO REMAIN WITH PROTECTIVE MEASURES
- XXX — TREE WITH ID NUMBER 20" OR GREATER TO REMAIN
- XXX — TREE WITH ID NUMBER TO BE REMOVED
- XXX — EPIPHYTYC TREE WITH ID NUMBER TO BE REMOVED
- XXX — HERITAGE TREE WITH ID NUMBER TO REMAIN
- XXX — HERITAGE TREE WITH ID NUMBER TO BE REMOVED

- DEFENSIBLE SPACE ZONE I, BUILDING ENVELOPE
- DEFENSIBLE SPACE ZONE II, 50' AREA BEYOND THE BUILDING ENVELOPE
- DEFENSIBLE SPACE ZONE III 50' TO 100' AREA BEYOND THE BUILDING ENVELOPE
- DEFENSIBLE SPACE ZONE IV, 100' PLUS AREA BEYOND THE BUILDING ENVELOPE, WOODLAND
- RIPARIAN ZONE

REFER TO TREE INVENTORY CHART FOR TREE IDENTIFICATION

VEGETATION MANAGEMENT AND ENHANCEMENT PLAN

50' 25' 0 25' 50' 100' 150'

Graphic Scale: 1" = 50'

7/16/18	REVISE PER CITY COMMENTS	DM
9/12/18	CATEGORIZE TREES BY COLOR	DM
10/5/18	CORRECTIONS AND COORDINATION	DM
6/12/19	ADDITIONAL TREE REMOVAL	DM

REGISTERED LANDSCAPE ARCHITECT — DONALD G. MACNAIR — No. 2800 — Exp. 8-31-17 — STATE OF CALIFORNIA

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PARKLAND FARMS SUBDIVISION

120 PARKLAND FARMS BLVD
HEALDSBURG, CALIFORNIA
APN 091-040-111 & 114

DATE: 4/19/18
JOB: 2015-28
SCALE: 1" = 20'
DRAWN: DM

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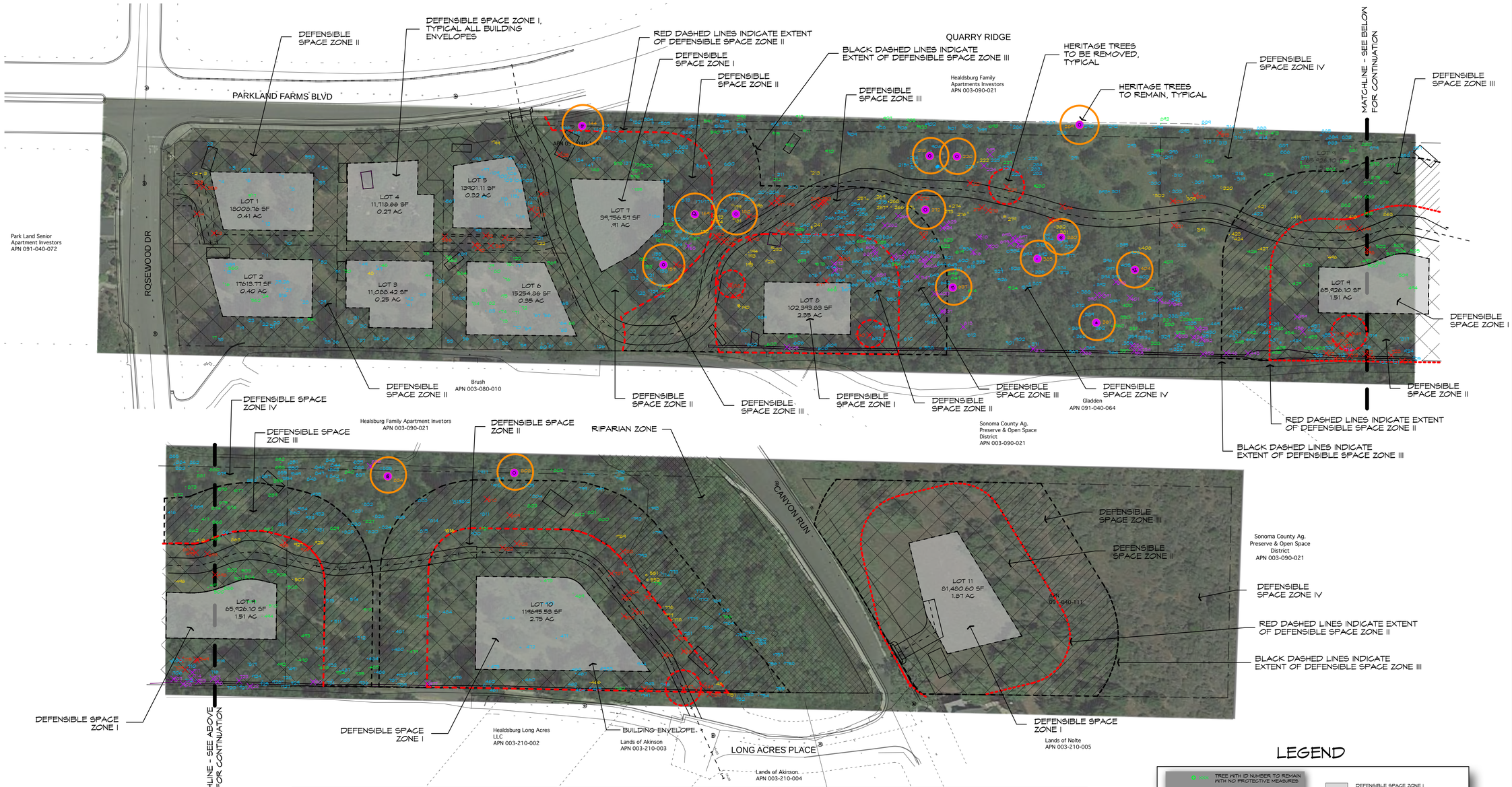
SHEET 1 OF 1



VEGETATION MANAGEMENT AND ENHANCEMENT PLAN

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1. All trees, 6" diameter and above, shall be identified and surveyed by type, size at time of individual lot development.
2. Evaluate condition, health, and structural integrity of all trees in Defensible Space Zone II.
3. Identify and remove trees dead, dying or with structural issues.
4. Identify and locate all heritage trees by type, size. Define heritage tree protection zones within Defensible Space Zone II.
5. All trees located in Defensible Space Zone II except heritage trees are not protected and subject to removal as a result of proximity to building placement and associated improvements.

Defensible Space Zone III, 50' to 100' Building Envelope

1. Identify and locate all heritage trees by type, size.
2. Provide description and nature of existing vegetation.
3. Vegetation management per overall property measures.

Defensible Space Zone IV, 100' Plus Beyond Building Envelope

1. Identify and locate all heritage trees by type, size.
2. Provide description and nature of existing vegetation.
3. Vegetation management per overall property measures.

Riparian Area

1. Identify biological elements and protected plants defined in the Healdsburg Area A Specific Plan EIR
2. Assess presence of invasive non-native plants, eliminate as required.
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LEGEND

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- XXX TREE WITH ID NUMBER 20" OR GREATER TO REMAIN
- XXX TREE WITH ID NUMBER TO BE REMOVED
- XXX EPIPHYTIC TREE WITH ID NUMBER TO BE REMOVED
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- XXX HERITAGE TREE WITH ID NUMBER TO BE REMOVED

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VEGETATION MANANGEMENT AND ENHANCEMENT PLAN

50' 25' 0 25' 50' 100' 150'

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VEGETATION MANANGEMENT AND ENHANCEMENT PLAN

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SHEET 1 OF 1