

7th ADDENDUM TO THE SIERRA VISTA SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT (SCH #2008032115, ADOPTED ON MAY 5, 2010)

Project Title/File Number:	SVSP PCL KT-40A & KT-40B- Estia; File #PL21-0256
Project Location:	6350 and 6400 Baseline Road, Roseville, Placer County, CA (APN 499-010-014-000)
Project Description:	The proposed project will create 209 multi-family residential units within the Sierra Vista Specific Plan (SVSP). The proposed project is a Tentative Parcel Map to subdivide the 23-acre property into three parcels (KT-40A, KT-40B, and KT-40C), a Tree Permit to remove two native oak trees, and a Design Review Permit to allow construction of 209 multi-family residential units on parcel KT-40A. In addition, a Specific Plan Amendment is requested to reflect the subdivision of the site and to modify the applicable Commercial Mixed Use/Special Area (CMU/SA) description in the Sierra Vista Specific Plan. The two Development Agreements ("Baseline P&R" and "Baybrook") applicable to the property will be amended so that the property is covered under one Development Agreement ("Baseline P&R"). Approximately 7.5 acres of the site, which will be the resulting parcels KT-40B & KT-40C, will remain undeveloped and designated for future commercial uses.
Project Applicant:	Vanessa Humphrey, REY Engineers
Property Owner:	KV Sierra Vista, LLC
Lead Agency Contact:	Kinarik Shallow, Associate Planner; Phone (916) 746-1309

An Addendum to a previously certified and adopted negative declaration or environmental impact report may be prepared for a project if only minor technical changes or additions are necessary or none of the conditions calling for the preparation of a subsequent EIR or negative declaration have occurred (California Environmental Quality Act Guidelines [CEQA] Section 15164). Consistent with CEQA Guidelines Section 15164, the below analysis has been prepared in order to demonstrate that none of the conditions described in Section 15162 of the CEQA Guidelines calling for preparation of a subsequent EIR have occurred and that only minor technical changes or additions are necessary in order to deem the adopted negative declaration adequate to describe the impacts of the proposed project. CEQA Guidelines Section 15164 also states that an addendum need not be circulated for public review, but can be included in or attached to the adopted negative declaration for consideration by the hearing body. This Addendum focuses only on those aspects of the project or its impacts which require additional discussion.

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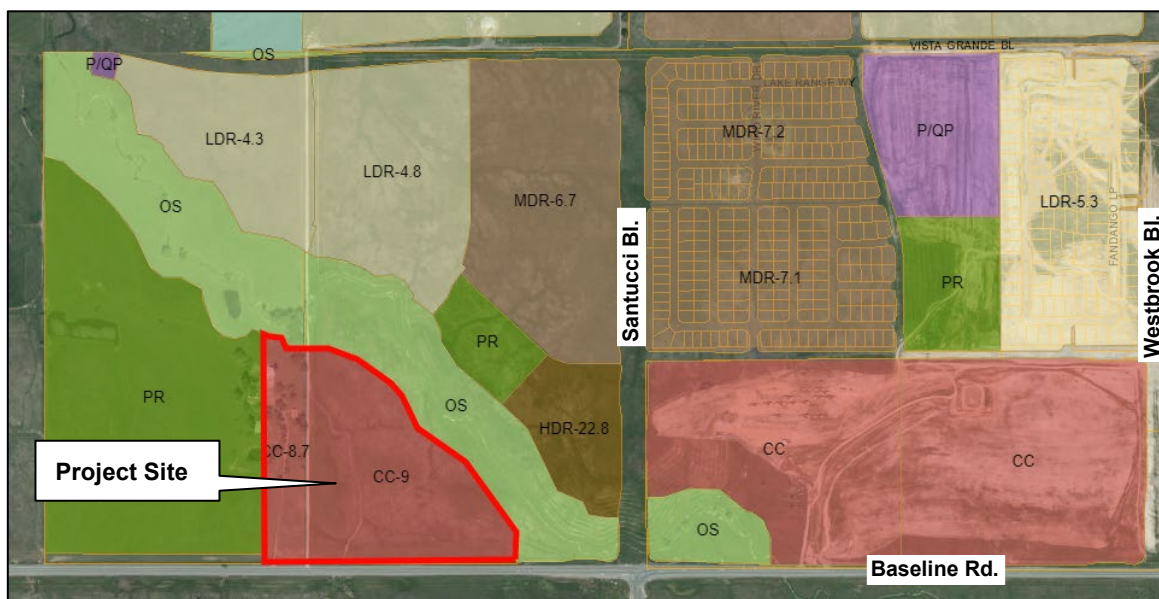
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PROJECT DESCRIPTION

Project Location

The 23-acre project site is located at 6350 Baseline Road (APN 499-010-014-000), on Parcel KT-40A and KT-40B within the Sierra Vista Specific Plan area (see Figure 1). The site is a single parcel with two large lot numbers.

Figure 1: Project Location



Background

The SVSP was approved by the City Council on May 5, 2010 (file #2007PL-044). An Environmental Impact Report (EIR) was certified on May 5, 2010 (SCH #2008032115) and a Mitigation Monitoring Program was adopted with the SVSP. The plan area includes 2,064 acres west of Fiddymont Road, north of Baseline Road. The SVSP at a program level anticipated development of the plan area with a mix of residential, commercial, parks and open space land uses. Additionally, Development Agreements with the property owners of the SVSP parcels and the City were entered into to outline development obligations within the SVSP.

Parcels KT-40A and KT-40B are designated as Community Commercial/Commercial Mixed Use (CC/CMU) parcels in the SVSP with a zoning designation of Commercial Mixed Use/Special Area (CMU/SA). The CMU/SA zone is described in the SVSP as intended for mixed-use centers that allow for a combination of commercial, office, and residential uses at a minimum density of 13 units per acre. The SVSP allocates a total of 209 residential units to the site.

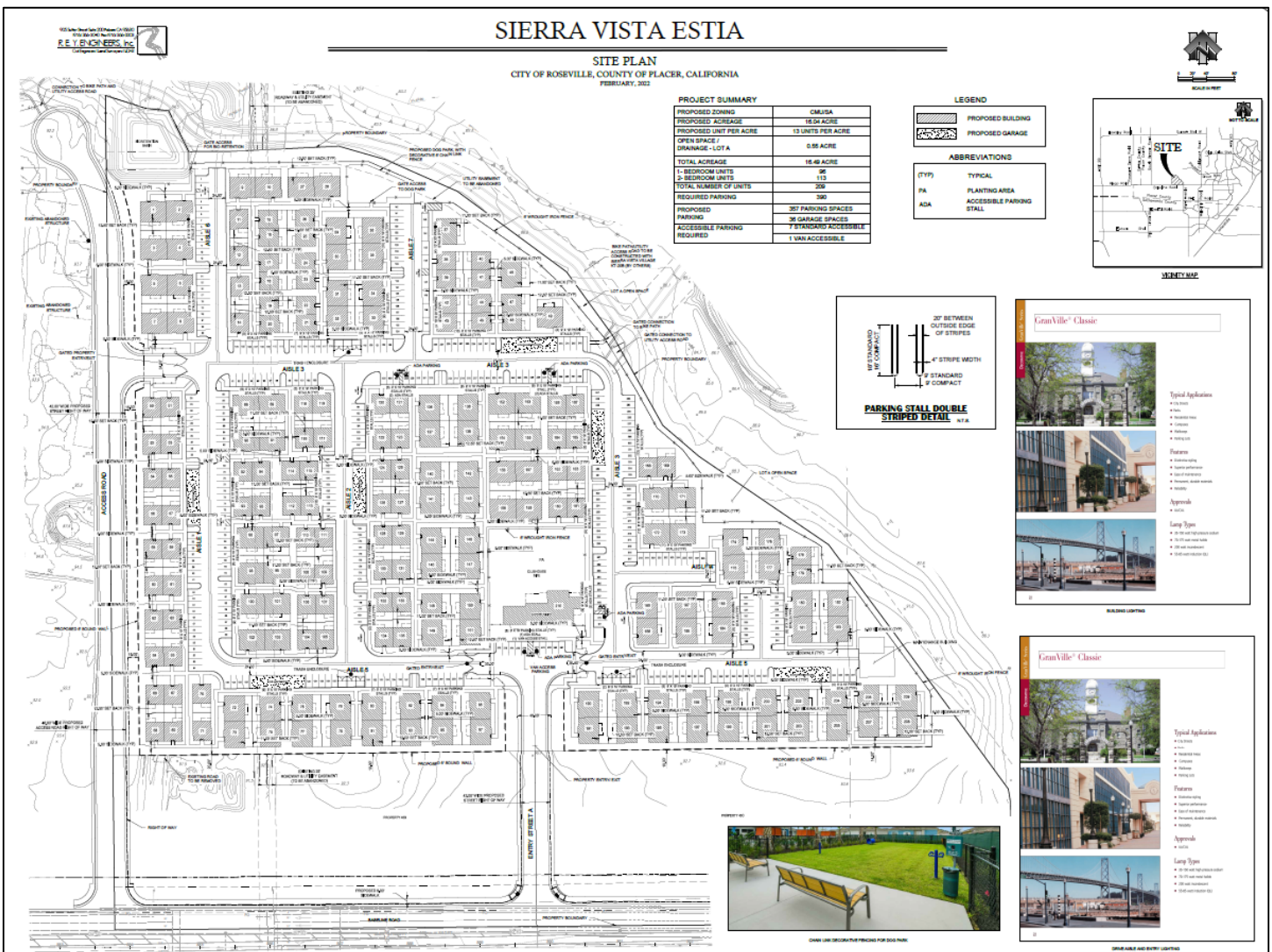
Environmental Setting

The project site is currently undeveloped and is comprised mostly of annual grasslands. The northwestern corner of the parcel consists of a mix of evergreen and deciduous trees as well as abandoned structures. A 25-foot-wide roadway and overhead power lines traverse the property in a north to south direction. Aerials of the site show evidence of previous ground disturbance due to construction of adjacent roadways. The parcel has frontage on Blue Oaks Boulevard to the south, and is adjacent to Curry Creek open space to the north and east, and an undeveloped Park and Recreation parcel to the west.

Table 1: Surrounding Zoning and Land Uses

Location	Zoning	General Plan Land Use	Actual Use of Property
Site	Commercial Mixed Use/Special Area (CMU/SA)	Community Commercial (CC-9)	Vacant
North	Open Space (OS)	Open Space (OS)	Curry Creek Open Space
South	Unincorporated Placer County	Unincorporated Placer County	Unincorporated Placer County
East	OS	OS	Open Space
West	Parks & Recreation (PR)	Parks & Recreation (PR)	Vacant

Figure 2: Preliminary Site Plan



Proposed Project

The preliminary site plan of the proposed project is shown in Figure 2 above. The proposed project is a Tentative Parcel Map to subdivide the 23-acre property into three parcels (KT-40A, KT-40B, and KT-40C), a Tree Permit to remove two native oak trees, and a Design Review Permit to allow construction of 209 multi-family residential units on parcel KT-40A. In addition, a Specific Plan Amendment is requested to reflect the subdivision of the site and to modify the applicable Commercial Mixed Use/Special Area (CMU/SA) description in the Sierra Vista Specific Plan. The two Development Agreements (“Baseline P&R” and “Baybrook”) applicable to the property will be amended so that the property is covered under one Development Agreement (“Baseline P&R”). Approximately 7.5 acres of the site, which will be the resulting parcels KT-40B and KT-40C, will remain undeveloped and will be designated for future commercial uses. A separate Design Review Permit will be required prior to development of parcels KT-40B and KT-40C.

PURPOSE AND SCOPE OF ADDENDUM

This Addendum has been prepared to identify and assess the anticipated environmental impacts of the above-described project. The document relies on previous environmental documents and site-specific studies prepared to address in detail the effects or impacts associated with the project as well as updated technical analyses, prepared by qualified consultants. This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

Where, as here, an EIR addressing an earlier version of the project has been previously prepared and certified, the lead agency considers the relevance of that prior EIR in light of the current modified version of the project and changed circumstances since the time of the preparation of the prior EIR. Pursuant to CEQA Guidelines §15162-15163, if the lead agency determines, based on substantial evidence, that new information of substantial importance, or changes to the project or surrounding circumstances will require major revisions to the previous EIR due either to a new significant effect or a substantial increase in the severity of a previously identified significant effect on the environment, the lead agency is required to prepare a Subsequent EIR or an EIR Supplement to analyze the project at hand. Pursuant to CEQA Guidelines §15164, if the agency finds no basis for requiring the preparation of either a Subsequent EIR or an EIR Supplement, but some changes or additions are necessary, an Addendum shall be prepared.

The Sierra Vista Specific Plan EIR was adopted by City Council on May 5, 2010. The document analyzed the impacts that would occur as a result of development of the SVSP area. A copy of the SVSP EIR is available for review online at www.roseville.ca.us/planning under Specific Plans and then the Sierra Vista Specific Plan page. The City Council adopted a Statement of Overriding Considerations when it certified the SVSP EIR. The EIR identified the following impacts associated with development of the SVSP area, including the buildout of the project area, as significant and unavoidable:

- Conversion of agricultural land to developed uses
- Inducement of substantial population growth
- Increased traffic on City of Roseville roadways
- Increased traffic on State Highways, including Interstate 80
- Increased traffic on Placer County roadways
- Increased emissions of fugitive dust and PM10 from grading and trenching activities (short term)
- Increased emissions of ozone precursors during construction (short-term)
- Increased emissions of air pollutants during operation
- Loss of oak trees of greater than 6 inches diameter breast height (dbh) (short-term)
- Removal of historically significant properties and/or loss of historic integrity of such resources

- Increased demand for solid waste services at the Western Regional Sanitary Landfill
- Increased demand for solid waste services at the Materials Recovery Facility (MRF)
- Construction debris demand for solid waste services
- Alteration of the visual character of the site and vicinity
- New sources of light and glare

For build out of the SVSP project area, the SVSP EIR also identified the following cumulative impacts as significant and unavoidable:

- Agricultural land conversion
- Air pollutant emissions from construction
- Air pollutant emissions from operation
- Contribution to greenhouse gas emissions/global warming
- On-site noise levels that exceed City standards
- Off-site noise levels that exceed City standards
- Traffic impacts to Roseville, Placer County, Sacramento County, Sutter County and State facilities
- Increased demand for water
- Increased demand for recycled water distribution system
- Increased generation of solid waste
- Change in visual character

The analyses below rely on the EIR analysis with minor supplements or technical updates where appropriate. Most of the project impacts remain identical to the impacts of the SVSP EIR, because the proposed project is consistent with the land uses anticipated for the site and does not change the development footprint or anticipated grading for the site. Impacts to physical resources (such as agricultural land, biological resources, etc.) are based on the grading and development of an area, not on the land use designation of the property. For other types of impacts which are affected by land use type, the project uses reduce or maintain the same level of potential impacts.

ENVIRONMENTAL CHECKLIST FOR ADDENDUM ENVIRONMENTAL REVIEW

The purpose of this checklist is to evaluate the categories in terms of any “changed condition” (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result. A “no” answer does not necessarily mean there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed in prior environmental documents.

EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

Where Impact was Analyzed

This column provides a cross-reference to the pages of the prior environmental documents where information and analysis may be found relative to the environmental issue listed under each topic.

Do Proposed Changes Involve New Significant Impacts?

Pursuant to Section 15162(a)(1) of the CEQA Guidelines, this column indicates whether the changes represented by the current project will result in new significant impacts that have not already been considered and mitigated by the prior environmental review documents and related approvals, or will result in a substantial increase in the severity of a previously identified impact.

Any new Circumstances Involving New Impacts?

Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been changes to the project site or the vicinity (circumstances under which the project is undertaken) which have

occurred subsequent to the certification or adoption of prior environmental documents, which would result in the current project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact.

Any new Information Requiring New Analysis or Verification?

Pursuant to Section 15162(a)(3)(A–D) of the CEQA Guidelines, this column indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified or adopted is available requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigation measures remain valid. Either “yes” or “no” will be answered to indicate whether there is new information showing that: (A) the project will have one or more significant effects not discussed in the prior environmental documents; (B) that significant effects previously examined will be substantially more severe than shown in the prior environmental documents; (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. If “no,” then no additional environmental documentation (supplemental or subsequent EIR) is required.

Mitigation Measures Implemented or Addressing Impacts

Pursuant to Section 15162(a)(3) of the CEQA Guidelines, this column indicates whether the prior environmental documents provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures have already been implemented. A “yes” response will be provided in any instance where mitigation was included, regardless of whether the mitigation has been completed at this time. If “none” is indicated, this environmental analysis concludes a significant impact does not occur with this project, no mitigation was previously included, and no mitigation is needed.

DISCUSSION AND MITIGATION SECTIONS**Discussion**

A discussion of the elements of the checklist is provided under each environmental category in order to clarify the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue and the status of any mitigation that may be required or has already been implemented.

Mitigation Measures

Applicable mitigation measures from the prior environmental review that apply to the project are listed under each environmental category.

Conclusions

A discussion of the conclusion relating to the analysis contained in each section.

OTHER CONSIDERATIONS

Since certification of the SVSP EIR, the Office of Planning and Research (OPR) has updated CEQA Guidelines Appendix G (Environmental Checklist Form), effective early 2019¹. These updates address legislative changes to CEQA, clarify language, and update language consistent with case law. None of the changes to the checklist require new analysis related to impacts which were not known or which could not have been known at the time the SVSP EIR was prepared. The majority of the checklist changes clarify language, reorganize existing language, or eliminate analysis requirements. For analysis requirements which have been eliminated, this is in response to case law affirming that analysis must focus on impacts caused by the project, not impacts to the project. An example of each of these types of changes is included below:

- Cultural Resources (a): Cause a substantial adverse change in the significance of an historic resource ~~as defined in~~ pursuant to Section 15064.5?

The replacement of “as defined in” with “pursuant to” is a phrasing change which has no impact on required analysis.

- Cultural Resources (c) has been moved to Geology and Soils (f).

Moving the topical section of this analysis requirement (which is related to paleontological resources) from Cultural Resources to Geology and Soils has no impact on required analysis.

- Noise (b): ~~Exposure of persons to or~~ Generation of excessive ground borne vibration of ground borne noise levels?

The above changes redirect the analysis from considering overall exposure of persons to ground borne vibration, and focus the analysis on any ground borne vibration generated by a project. This same change is reflected in all other checklist questions related to noise. Therefore, the EIR included more analysis than is currently required, because they included analysis related to exposing neighboring areas to noise, but also analyzed the effect of noise on the proposed uses; the latter analysis is no longer required.

The updated CEQA Guidelines Appendix G also includes three new sections (Tribal Cultural Resources, Energy, and Wildfire) and includes new and modified requirements as part of the Transportation/Traffic section. Although the Tribal Cultural Resources section is new, the analysis of this impact area was included in the SVSP EIR as part of the Cultural Resources section. The new Energy section was formerly included in CEQA Guidelines Appendix F, but has been moved into the Appendix G, so while it is new to the checklist it is not new to the CEQA Guidelines. The changes to the Transportation/Traffic section—which is now called simply Transportation—refocuses the analysis on vehicle miles traveled (VMT).

As evaluated below, none of the modifications to CEQA Guidelines Appendix G require new analysis related to impacts which were not known or which could not have been known at the time the SVSP EIR was prepared. Therefore, an Addendum is the appropriate environmental document to describe the impacts of the proposed project.

¹Although the older checklist could be used for this Addendum because of the date of publication of the original EIR, the updated checklist is used instead as part of a good-faith effort to provide the most up-to-date information to decision-makers and the public (Public Resources Code Section 21002.1(e); CEQA Guidelines Sections 15002(a)(1), 15003(c)).

CHECKLIST

I. Aesthetics

	Where Impact Was Analyzed in Prior Environmental Documents	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a. Have a substantial adverse effect on a scenic vista?	SVSP EIR Section 4.14	No	No	No	None
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Same	No	No	No	None
c. In non-urbanized area, 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 a 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?	Same	No	No	No	None
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	Same	No	No	No	SVSP EIR MM 4.13-1

Discussion: Impacts to visual and aesthetic resources were adequately addressed in the SVSP EIR as it relates to the proposed project, and were previously identified as significant and unavoidable. There is no significant change in the proposed project that would change the environmental impact for this section. The proposed land use change and subdivision map do not introduce development to properties not already planned for development. The proposed uses are substantially consistent with the build out assumptions and would not increase the severity of already identified significant impacts.

The project has been evaluated for compliance with the City's Community Design Guidelines (CDG) and the design guidelines established in the SVSP. The CDG establishes common design elements and expectations for development within the City. The CDG includes provisions related to architectural design, site design and landscape design, to enhance the visual character of the urban environment. The CDG recommends preserving, to the extent feasible, visual resources such as native oak trees and creek or wetland resources. The site does not contain any creek or wetland resources; however, the project will require the removal of one native oak tree on the project site, and therefore requires a Tree Permit. Consistent with the City's Tree Preservation ordinance (RMC Ch. 19.66), the Tree Permit would contain conditions of approval that require

compliance with mitigation measures. These measures include payment of in-lieu mitigation fees to compensate for oak tree removal. The project has been reviewed by City staff and was found to be consistent with the goals and policies of the CDG, the SVSP, and applicable zoning regulations.

As it relates to light and glare, Mitigation Measure (MM) 4.13-1 requires all light fixtures for commercial and office uses to have glare shields and all new buildings to be constructed with low-glare materials. While the project does not involve development of the commercial parcels at this time, MM 4.13-1 is still applicable. Given the project's proximity to the Curry Creek open space to the north, SVSP MM 4.14-3 will also apply, which ensures lighting would not adversely affect wildlife in open space areas and along Curry Creek. In addition, lighting is conditioned to comply with City standards (i.e., CDG) to limit the height of light standards and also require cut-off lenses and glare shields to minimize light and glare impacts. Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to aesthetic resources.

Mitigation Measures: SVSP EIR Mitigation Measures 4.13-1 (use low-glare materials) and 4.14-3 (avoid light spill over into Curry Creek open space) remain applicable to the proposed project. These mitigation measures can be found in the table of applicable mitigation measures included with this Addendum (see Attachment 1).

II. Agricultural & Forestry Resources

	Where Impact Was Analyzed in Prior Environmental Documents	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
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?	SVSP EIR Section 4.1	No	No	No	SVSP EIR MM 4.1-2
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Same	No	No	No	None
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))?	Same	No	No	No	None
d) Result in the loss of forest land or conversion of forest land to non-forest use?	Same	No	No	No	None
e) Involve other changes in the existing environment which, 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?	Same	No	No	No	None
Discussion: Agricultural resources were adequately addressed in the SVSP EIR as it relates to the proposed project. There is no significant change in the proposed project that would change the environmental impact for this section. The SVSP EIR concluded development of the project area would convert fallow grazing land to urbanized development. The proposed project will result in the same impact, as it falls within the planned development footprint of the SVSP. The project site is not used for agricultural purposes, does not include agricultural zoning, is not within or adjacent to one of the areas of the City designated as a protected farmland category on the Placer County Important Farmland map, is not within					

or adjacent to land within a Williamson Act Contract, and is not considered forest land. For these reasons, no subsequent or supplemental EIR is required for the project with respect to agricultural and forestry resources.

Mitigation Measures: SVSP EIR Mitigation Measure (MM) 4.1-2 required preservation of open space within Placer County in order to mitigate for the loss of open space in the SVSP. Though this measure remains applicable to the project, the measure has been completed via an established fee program that directs funds to the Placer Land Trust, which then sets aside land.

III. Air Quality

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Conflict with or obstruct implementation of the applicable air quality plan?	SVSP EIR Section 4.4	No	No	No	None
b) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Same	No	No	No	SVSP EIR MM 4.4-1, MM 4.5-1, and MM 4.5-2
c) Expose sensitive receptors to substantial pollutant concentrations?	Same	No	No	No	None
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Same	No	No	No	None
<p>Discussion: The SVSP EIR concluded that standard dust control and other construction measures would be sufficient to avoid particulate matter and ozone precursor construction impacts, but that reactive organic gases would remain significant. Construction activity associated with the proposed project remains consistent with the scale of activity and resulting scope of impacts anticipated in the SVSP EIR. The proposed project is consistent with the land use designation for the site and evaluated in the SVSP EIR, and is substantially consistent with the build out assumptions. Therefore, operational impacts of the proposed project remain consistent with the scope of impacts and mitigation already established in the SVSP EIR. Based on the foregoing, there would be no new significant impacts not previously identified in the SVSP EIR. Pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to air quality impacts.</p> <p>Mitigation Measures: Mitigation Measures 4.4-1 (construction emissions), 4.5-1 (operational emissions), 4.5-2 (greenhouse gas emissions) from the SVSP EIR remain applicable to the proposed project, and have been incorporated into the design of the project as appropriate. These mitigation measures can be found in the table of applicable mitigation measures included with this Addendum (see Attachment 1).</p>					

IV. Biological Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
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?	SVSP EIR Section 4.8	No	No	No	SVSP EIR MM 4.8-1 to 4.8-7
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 Wildlife or U.S. Fish and Wildlife Service?	Same	No	No	No	SVSP EIR MM 4.8-4 to 4.8-7
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Same	No	No	No	SVSP EIR MM 4.8-1 to 4.8-7
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?	Same	No	No	No	SVSP EIR MM 4.8-4 to 4.8-7
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Same	No	No	No	None

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?	Same	No	No	No	None
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Discussion: Biological Resources were adequately addressed in the SVSP EIR as it relates to the proposed project. Mitigation measures were adopted to reduce impacts to wetlands, vernal pool species, Swainson's hawk, burrowing owl, and other protected raptors nesting and foraging habitat to less-than-significant levels. There is no significant change in the proposed project that would change the environmental impact for this section and the proposed project is located on properties already anticipated for development.

An Arborist Report was prepared for the project by California Tree and Landscape Consulting, Inc. (see Attachment 2) that inventoried a total 41 trees on the site. The Tree Preservation Chapter (Chapter 19.66) of the City's Zoning Ordinance identifies a protected tree as any native oak tree equal to or greater than six inches diameter at breast height (DBH), and requires a Tree Permit for the removal of a protected tree. All trees on the site will be removed, however, only two are considered protected trees—Tree #8511 (31" DBH interior live oak) and Tree #8513 (23" DBH interior live oak). The trees could potentially provide habitat for nesting birds and construction activities could also have the potential to disrupt offsite nesting species. The SVSP EIR adopted MM 4.8-3 which requires pre-construction nesting surveys to ensure that nesting birds are not harmed during construction. Compliance with this measure was found to render potential impacts to nesting birds as less than significant. In addition, the SVSP EIR concluded that compliance with the City's Zoning Ordinance Tree Preservation Chapter 19.66 would ensure that removal of oak trees would be adequately replaced. Consistent with the Zoning Ordinance, the project includes a request for a Tree Permit to allow removal of the protected oak trees. The Tree Permit will have conditions of approval requiring compliance with the SVSP EIR mitigation measures. The SVSP EIR mitigation measures were found to render potential impacts less than significant.

The proposed project would not result in any new or modified impacts to biological resources beyond what was previously analyzed in the SVSP EIR. The project site is devoid of vernal pools and other water features. The site is primarily populated by non-native annual grasses and aerial photography shows evidence of previous ground disturbance on the site due to construction of the adjacent roadways. The mitigation measures adopted with certification of the SVSP EIR remain applicable and no additional impacts will occur. Impacts remain less than significant upon compliance with the applicable mitigation measures.

Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to impacts to biological resources.

Mitigation Measures: Mitigation Measure 4.8-1 (wetland permits and no net loss), 4.8-2 (relocate western spadefoot), 4.8-3 (protection for nesting birds), 4.8-4 (preservation of grassland habitat), 4.8-5 (wildlife movement protection), 4.8-6 (habitat restoration), 4.8-7 (off-site surveys for infrastructure), and 4.14-3 (avoid light spill over into Curry Creek open space) were identified to reduce the impacts to biological resources to less than significant. These measures also applicable to the proposed project.

V. Cultural Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Cause a substantial adverse change in the significance of an historic resource pursuant to in Section 15064.5?	SVSP EIR Section 4.9	No	No	No	None
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Same	No	No	No	SVSP EIR MM 4.9-1 to 4.9-3
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Same	No	No	No	SVSP EIR MM 4.9-1 to 4.9-3
<p>Discussion: The SVSP EIR discussed the potential for subsurface remains or deposits to be found on the site, and included a mitigation measure requiring a cessation of work should any item of cultural interest be found. The mitigation was found to render potential impacts less than significant. The project will result in the same impact, and the mitigation remains applicable to the proposed project. Consistent with state law, notice of the proposed project was mailed on September 14, 2021 to tribes which had requested such notice pursuant to Assembly Bill 32 (AB32) and Senate Bill 18 (SB18). No request for consultation was received during the request for consultation period.</p> <p>Mitigation Measures: Mitigation Measure 4.9-1 (cease work and consult with archeologist), 4.9-2 (cease work and consult with paleontologist), and 4.9-3 (conduct appropriate studies) remain applicable to the proposed project.</p>					

VI. Energy

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	SVSP EIR Section 4.12.5	No	No	No	None
b) Conflict with or obstruct a state or local plan for renewable energy or energy inefficiency?	SVSP EIR Section 4.12.5	No	No	No	None
<p>Discussion: The SVSP EIR concluded that development and implementation of the SVSP would add land uses that would increase the demand for electrical services. However, Roseville Electric determined there were no constraints to providing a reliable energy source to serve the development proposed in the SVSP area. Electricity in the area is provided by Roseville Electric and natural gas is provided by Pacific Gas & Electric (PG&E). Impacts 4.12-5.1 and 4.12-5-2 in the SVSP EIR evaluated the potential for development of the SVSP to increase demands for electricity and natural gas and found these impacts to be less than significant.</p> <p>The project would allow for the development of 209 multi-family residential units. The project would consume energy both during project construction and during project operation. During construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. However, the energy consumed during construction would be temporary, and would not represent a significant demand on available resources. There are no unusual project characteristics that would necessitate the use of construction equipment or methods that would be less energy-efficient or which would be wasteful.</p> <p>The completed project would consume energy related to building operation, exterior lighting, landscape irrigation and maintenance, and vehicle trips to and from the use. In accordance with California Energy Code Title 24, the Project would be required to meet the Building Energy Efficiency Standards. This includes standards for water and space heating and cooling equipment; insulation for doors, pipes, walls, and ceilings; and appliances, to name a few. The project would also be eligible for rebates and other financial incentives from both the electric and gas providers for the purchase of energy-efficient appliances and systems, which would further reduce the operational energy demand of the project. The project was distributed to both PG&E and Roseville Electric for comments, and was found to conform to the standards of both providers; energy supplies are available to serve the project.</p> <p>The SVSP EIR included an assessment of energy impacts for the entire plan area. The analysis included consideration of transportation energy, and evaluated walkability, alternative transportation modes, and the degree to which the mix and location of uses would reduce vehicle miles</p>					

traveled in the plan area. The EIR also included a citywide assessment of energy demand based on the existing and proposed land uses within the City and Specific Plan. Impacts related to energy consumption were found to be less than significant. The proposed project is consistent with the existing land use designation, and therefore is consistent with the current citywide assessment of energy demand, and will not result in substantial unplanned, inefficient, wasteful, or unnecessary consumption of energy; impacts are less than significant.

Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to energy impacts.

Mitigation Measures: None required for this Project.

VII. Geology and Soils

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	SVSP EIR Section 4.7	No	No	No	None
i) Ruptures 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.)	Same	No	No	No	None
ii) Strong seismic ground shaking?	Same	No	No	No	None
iii) Seismic-related ground failure, including liquefaction?	Same	No	No	No	None
iv) Landslides?	Same	No	No	No	None
b) Result in substantial soil erosion or the loss of topsoil?	Same	No	No	No	None
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Same	No	No	No	None
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Same	No	No	No	None

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Same	No	No	No	None
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	SVSP EIR Section 4.7 and Section 4.9	No	No	No	SVSP EIR MM 4.9-2 to MM 4.9-3

Discussion: The project is not expected to expose people or structures to potential substantial adverse effects involving seismic shaking, ground failure or landslides. The project site is located in Roseville, which is in Placer County. The California Department of Mines and Geology classifies the South Placer area as a low severity earthquake zone. No active faults are known to exist within the County. The project site is considered to have low seismic risk with respect to faulting, ground shaking, seismically related ground failure and liquefaction.

The SVSP EIR indicated that compliance with existing regulations and permit requirements would be sufficient to avoid impacts related to these issues. This conclusion remains appropriate for the proposed project because there is no new information indicating that geologic conditions are different than previously understood. The SVSP EIR discussed the potential for paleontological resources to be found on the site, and included a mitigation measure requiring a cessation of work should any be found on site. The mitigation was found to render potential impacts less than significant. The project will result in the same impact, and the mitigation remains applicable to the proposed project.

Based on the reasons listed in this section, there would be no new significant impacts not previously identified in the SVSP EIR. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to geology and soil impacts.

Mitigation Measures: Mitigation Measure 4.9-2 (cease work and consult with paleontologist) and 4.9-3 (conduct appropriate studies) remain applicable to the proposed project.

VIII. Greenhouse Gases

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	SVSP EIR Section 4.4	No	No	No	SVSP EIR MM 4.4-1, 4.5-1 and 4.5-2
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Same	No	No	No	None
<p>Discussion: The SVSP EIR concluded that buildout of the project area would cause significant and unavoidable impacts with respect to greenhouse gases (GHG) emissions and mitigation measures were adopted to reduce the project's GHG emissions and resultant impacts. Construction activity associated with the proposed project remains consistent with the scale of activity and resulting scope of impacts anticipated in the SVSP EIR. The proposed project is consistent with the land use designation for the site and evaluated in the SVSP EIR, and is substantially consistent with the build out assumptions. Greenhouse gas emissions, from both the construction and operational phases, will result in impacts consistent with those analyzed in the SVSP EIR. The project will comply with the required mitigation in the SVSP EIR. Thus, pursuant to CEQA Guidelines Section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred" relative to GHG emissions.</p> <p>Mitigation Measures: Mitigation Measures 4.4-1 (construction emissions), 4.5-1 (operational emissions), and 4.5-2 (greenhouse gas emissions) from the SVSP EIR remain applicable to the proposed project, and have been incorporated into the design of the project as appropriate.</p>					

IX. Hazards and Hazardous Materials

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	SVSP EIR Section 4.10	No	No	No	None
b) Create a significant hazard to the public or the environment though reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Same	No	No	No	SVSP EIR MM 4.10-1
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Same	No	No	No	None
d) Be located on a site which 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?	Same	No	No	No	None
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Same	No	No	No	None
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Same	No	No	No	None

g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	Same	No	No	No	None
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Discussion: The SVSP EIR includes a brief overview for each impact topic, concluding that compliance with existing federal, state, and local regulations regarding the use, transport and disposal of hazardous materials would ensure most impacts will be less than significant. The exception was for unknown soil contamination, as land which was used for agricultural purposes may include undiscovered, underground storage tanks or other contamination issues; mitigation for this was included. The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The SVSP EIR analysis also found that there would be sufficient emergency services and facilities and that the area was not located within an airport land use plan or other aviation hazard area. These conclusions still fit for the proposed project, which is within the same development footprint.

Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints and paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public. The materials only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. a vehicle accident) or mishandling. In addition to construction use, the operational project would result in the use of common hazardous materials as well, including bleach, solvents, and herbicides. Regulations pertaining to the transport of materials are codified in 49 Code of Federal Regulations 171–180, and transport regulations are enforced and monitored by the California Department of Transportation and by the California Highway Patrol. Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. These same codes require that all hazardous materials be used and stored in the manner specified on the material packaging. Existing regulations and programs are sufficient to ensure that potential impacts as a result of the use or storage of hazardous materials are reduced to less than significant levels.

The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility. The project site is in an urban area, and therefore would not expose people to any risk from wildland fire.

The proposed uses are substantially consistent with the build out assumptions and would not increase the severity of already identified significant impacts; therefore, there would be no new significant impacts not previously identified in the SVSP EIR regarding hazardous materials. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to hazards and hazardous materials.

Mitigation Measures: The SVSP EIR included a mitigation measure to address the low possibility that some contamination of soils still lingered due to past use of the land for agricultural purposes. The measure, Mitigation Measure 4.10-1, indicates that if evidence of contamination is observed (stained soils, unearthing of a tank, etc.) then proper testing and remediation is required, in coordination with the appropriate City Departments. This measure remains applicable to the project.

X. Hydrology and Water Quality

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	SVSP EIR Section 4.13	No	No	No	None
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Same	No	No	No	None
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:	Same	No	No	No	None
i) result in substantial erosion or siltation on or off-site;	Same	No	No	No	None
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	Same	No	No	No	None
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater systems or provide substantial additional sources of polluted runoff; or	Same	No	No	No	None
iv) impede or redirect flood flows?	Same	No	No	No	None

d) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Same	No	No	No	None
e) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Same	No	No	No	None
f) In flood hazard, tsunami, or seiches zones, risk release of pollutants due to project inundation?	Same	No	No	No	None

Discussion: A Drainage and Storm water Master Plan was prepared and approved by the City as part of the SVSP EIR. As noted in the EIR, the Drainage and Storm water Master Plan demonstrated that the increases in impervious surfaces being caused by buildout of the SVSP would be offset by proposed drainage facilities and storm water improvements. The project would offset increases in peak flow, no development would occur within the 100-year floodplain area, and consistency with existing City regulations would ensure that all homes would be elevated at least two feet above the 100-year water surface elevation. With regard to storm water quality, the EIR notes that there are existing programs, regulations, and permits in place to ensure that the project would not have significant effects related to water pollution from construction or operation, though a mitigation measure is included to require compliance with this regulations.

The project is in an area of flat topography and is not near any large water bodies or dams/levees, so would not be subject to losses due to dam/levee failure, seiche, tsunami, or mudflow. The project falls within the development footprint of the SVSP, and does not result in any changes to the scope or scale of impacts, and the prior conclusions remain appropriate.

Mitigation Measures: Mitigation Measure 4.13-1 was included to require compliance with the City's stormwater quality standards, including preparation of a Storm Water Pollution Prevention Plan (SWPPP). This measure remains applicable to the proposed project.

XI. Land Use and Planning

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
a) Physically divide an established community?	SVSP EIR Section 4.1	No	No	No	None
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation of an agency adopted for the purpose of avoiding or mitigating an environmental effect?	Same	No	No	No	SVSP EIR MM 4.1-3, 4.6-1 and 4.6-2

Discussion: The SVSP EIR concluded that there were some potential land use incompatibilities, but that these could be addressed by a mix of mitigation and compliance with the City Noise Ordinance and Grading Ordinance. Land use issues discussed and addressed included noise from McClellan overflights, agricultural uses in Placer County next to urban uses in the SVSP, construction noise, and commercial land use noise. The overflight noise is a potential nuisance discussion requiring disclosure to future purchasers within the Project area; noise volumes do not exceed standards. It was concluded that the project would not physically divide an established community and that the project did not conflict with any land use policies or regulations, or with a Habitat Conservation Plan (or similar). The EIR concluded that all impacts of the SVSP could be reduced to less than significant levels with mitigation. The project involves the same use types within the same development footprint, and therefore the conclusions of SVSP EIR remain applicable to the proposed project. In addition, the project is consistent with the policies of the Zoning Ordinance, SVSP, and the General Plan which are adopted for the purpose of avoiding environmental effects.

The project area has been planned for development, including adequate roads, pedestrian paths, and bicycle paths to provide connections within the community. The project involves frontage improvements including new driveways, sidewalks, and pedestrian connections. As such, the project will not physically divide an established community.

As described above, changes introduced by the project and/or new circumstances relevant to the project would not, as compared to the SVSP EIR, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred” relative to land use and planning.

Mitigation Measures: Mitigation Measure 4.1-3 (McClellan overflight disclosure), 4.6-1 (construction noise) and 4.6-2 (commercial noise controls). The measure regarding disclosure ensure that people purchasing property within the project area which could be affected by overflight noise are aware of this potential affects. The disclosure measure is implemented by including a Condition of Approval requiring that the deed

disclosures are a component of the Covenants, Conditions, and Restrictions for all affected properties. The condition has been addressed in the Development Agreement for the project area, so the measures are already complete. The construction noise and commercial noise control measures are applied during construction, so remain applicable to the proposed project.

XII. Mineral Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
c) 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?	SVSP EIR Section 4.7	No	No	No	None
d) 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?	Same	No	No	No	None
<p>Discussion: The SVSP EIR indicated that there were no significant mineral resources in the area. Therefore, the project is not considered to have any impacts on mineral resources. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to mineral resources.</p> <p>Mitigation Measures: None required for this Project.</p>					

XIII. Noise

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents' Mitigation Measures Implemented or Addressing Impacts.
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?	SVSP EIR Section 4.6	No	No	No	SVSP EIR MM 4.1-3, 4.6-1 and 4.6-4
b) Generation of excessive ground borne vibration of ground borne noise levels?	Same	No	No	No	SVSP EIR MM 4.6-1 and 4.6-4
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Same	No	No	No	None
<p>Discussion: The SVSP EIR addressed construction noise, roadway noise, noise from non-residential land uses, and aircraft overflight noise. Overflight noise has already been addressed in the Land Use section of this Addendum. Construction noise in general was discussed, and addressed via mitigation. Noise was determined to be an issue for all of the major roadways in the SVSP area, including Baseline Road. Mitigation was found to reduce noise volumes to levels within General Plan standards, and so impacts were found to be less than significant.</p>					

The project will be subdividing the property into three lots—KT-40A, KT-40B, and KT-40C. The 209 units allocated to the property will be built on KT-40A, while the remaining KT-40B and KT-40C will be designated for commercial uses and developed in the future. Consistent with the SVSP noise reduction mitigation measures, a 6-foot tall masonry sound wall will be constructed along the shared property line between the residential and commercial uses. The sound wall will also help mitigate noise resulting from Baseline Road and ensure that noise volumes are consistent with City standards.

Based on the foregoing, the project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to noise.

Mitigation Measures: Mitigation Measures 4.1-3 (McClellan overflight disclosure), 4.6-1 (construction noise), and 4.6-4 (traffic noise attenuation) were applied in the SVSP EIR. Construction noise controls in the mitigation includes located fixed equipment away from noise sensitive uses and having a construction disturbance coordinator to address noise concerns. Traffic noise attenuation also calls for the use of masonry walls along major roadways. These mitigation measures remain applicable to the proposed project.

XIV. Population and Housing

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	SVSP EIR Section 4.2	No	No	No	None
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Same	No	No	No	None
<p>Discussion: The SVSP EIR indicated the SVSP would increase the number of housing units above those which had been anticipated in the General Plan, and analysis the effect on supporting services, infrastructure, and other issues related to environmental impacts. It was concluded that impacts would be significant and unavoidable. The project will construct 209 residential units, which is the total number of units allocated to the site. Given the project involves the same number of housing units as analyzed in the SVSP EIR, the project will result in the same previously identified impacts. No existing buildings or residents are present on the project site; therefore, no residences or communities would be displaced. The project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to population and housing impacts.</p> <p>Mitigation Measures: None required for this Project.</p>					

XV. Public Services

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 the public services:					
a) Fire protection?	SVSP EIR Section 4.11	No	No	No	None
b) Police protection?	Same	No	No	No	None
c) Schools?	Same	No	No	No	SVSP EIR MM 4.11-3
d) Parks?	Same	No	No	No	None
e) Other public facilities?	Same	No	No	No	None
<p>Discussion: The SVSP EIR concluded that fire and police protection services, and other public services would not be negatively affected by the project. Existing City codes and regulations require adequate water pressure in the water lines, and construction must comply with the Uniform Fire and Building Codes used by the City of Roseville. Additionally, the applicant is required to pay a fire service construction tax, which is used for purchasing capital facilities for the Fire Department. Sales taxes and property taxes resulting from development will add revenue to the General Fund, which provides funding for police services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.</p> <p>An analysis of impacts to schools was included in the SVSP EIR, which concluded that two new elementary schools and one new intermediate school would be required in the project area. The high school students generated from the SVSP were assumed in the nearby high schools located outside the plan area. A portion of the SVSP is located within the Center School District and a portion is located within the Roseville City School District, though the current project area is entirely within the Center School District. The project will not change the overall number of housing units in the SVSP; therefore, the conclusions of SVSP EIR remain applicable to the proposed project.</p>					

The project was routed to the School District for review, and no issues were identified. The project will be required to pay per-unit school fees to mitigate any impacts. Under state law, such payments are deemed to constitute “*full and complete mitigation*” of impacts to school facilities (Gov. Code, § 65995, subd. (h)). In addition, the developer is required to work with the School District to identify a Safe Routes to School program. Impacts to public services were determined to be less than significant, with mitigation.

The developer will be required to pay fees into a Community Facilities District, which provides funding for park services. Future park and recreation sites and facilities have already been identified as part of the Specific Plan process. The City charges fees for end-users for other services, such as garbage and greenwaste collection, in order to fund those services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

Based on the evaluation above, the project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to public services.

Mitigation Measures: Mitigation Measure 4.11-3 requires a Safe Routes to School program, which would be implemented at the time of school construction, and remains applicable to the proposed project.

XVI. Recreation

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?	SVSP EIR Section 4.11	No	No	No	None
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Same	No	No	No	None
<p>Discussion: The SVSP indicates that the required parkland dedication was met by dedication of parkland and through payment of park dedication in-lieu fees. As noted in the EIR, the payment of Citywide and neighborhood park fees will be required, and the payment of fees combined with the dedication of parkland will ensure that impacts to park services are less than significant. The project involves the construction of 209 units, which is consistent with the number of units allocated to the site by the General Plan and the SVSP. As such, the project will not increase the number of residents anticipated for the SVSP nor decrease the amount of area dedicated to park and recreation uses; therefore, this conclusion remains applicable to the proposed project. Given the foregoing, the project would not result in new or more severe impacts than described in the SVSP EIR, and the impact conclusions of the EIR are unchanged. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to recreation impacts.</p> <p>Mitigation Measures: None required for this Project.</p>					

XVII. Transportation

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	SVSP EIR Section 4.3	No	No	No	SVSP EIR MM 4.3-1 to 4.3-5
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	n/a	No	No	No	None
c) Substantially increase hazards due to a geometric design feature(s) (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	SVSP EIR Section 4.3	No	No	No	None
d) Result in inadequate emergency access?	Same	No	No	No	None
<p>Discussion: The SVSP EIR evaluated the traffic impacts to existing and future roadways from traffic being generated by the anticipated uses within the plan area. The EIR concluded that with mitigation, impacts to City roadways would be less than significant. Impacts to adjacent agency roadways was identified as a significant and unavoidable impact, and mitigation to lessen the impact was accepted. The proposed project is consistent with the Community Commercial/Commercial Mixed Use designation of the site and will be building the same number of units contemplated for the site. Therefore, the project would not cause new or more severe impacts than already described in the SVSP EIR.</p> <p>Checklist item b) focuses on Vehicle Miles Traveled (VMT). This was added to the checklist after publication of the SVSP EIR. However, the General Plan Update (GPU) EIR² used the Roseville travel forecasting model to estimate VMT for the City. The VMT data was then normalized to residents as a “per capita” rate. As described in the GPU EIR, and consistent with the VMT reductions in OPR’s <i>Technical Advisory on Evaluating Transportation Impacts in CEQA</i>, the City has adopted a VMT significance threshold of 12.8 VMT/capita. This threshold represents a 15 percent reduction to baseline per capita VMT. The GPU EIR concluded that buildout of the remaining undeveloped areas of the City, consistent with existing land use designations and existing development agreements, would exceed the City’s adopted threshold resulting in a</p>					

² General Plan Update EIR: www.roseville.ca.us/GeneralPlan

Significant Impact in both the constrained and unconstrained buildout scenarios; and that mitigation requiring land use changes was not feasible because of existing development agreements in place for the undeveloped areas of the City.

As stated in the GPU EIR and pursuant to the tiering provisions of CEQA, projects that are consistent with the General Plan do not require further VMT analysis. The proposed project is consistent with the General Plan land use and will allow the development of 209 residential units, which is consistent with the number of units allocated to the site in the General Plan and in the SVSP. The project does not change the total number of units anticipated for buildout of the SVSP and analyzed in the GPU EIR; therefore, it can be concluded that the project is consistent with the GPU EIR analysis as it relates to VMT, and the project does not require further VMT analysis.

The proposed project has no impact on air traffic patterns, and does not present substantial safety risks. The project design does not introduce hazards such as sharp curves or dangerous intersections. The project has been reviewed by the City Engineering Division and City Fire Department staff, and has been found to be consistent with the City's Design Standards. Furthermore, standard conditions of approval added to all City project require compliance with Fire Codes and other design standards. Compliance with existing regulations ensure that impacts are less than significant.

The proposed uses are substantially consistent with the build out assumptions and would not increase the severity of already identified significant impacts; therefore, there would be no new significant impacts not previously identified in the SVSP EIR relative to transportation. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that "none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred" relative to transportation.

Mitigation Measures: Mitigation was included for each impacted facility (see SVSP EIR MM 4.3-1 to 4.3-5), but these measures have already been incorporated into the City's Capital Improvement Program and fee programs. The measures are no longer necessary to impose on individual projects, as a mechanism for their funding and construction is already implemented.

XVIII. Tribal Cultural Resources

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	SVSP EIR Section 4.9	No	No	No	None
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 the lead agency shall consider the significance of the resource to a California Native American tribe.	Same	No	No	No	None

Discussion: In addition to archeological resources, tribal cultural resources are also given particular treatment. Tribal cultural resources are defined in Public Resources Code Section 21074, as either 1) a site, feature, place, geographically-defined cultural landscape, sacred place, or object with cultural value to a California Native American Tribe, that is listed or eligible for listing on the California Register or Historical Resources, or on a local register of historical resources or as 2) a resource determined by the lead agency, supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1(c), and considering the significance of the resource to a California Native American Tribe. This section was added to the CEQA Guidelines after the publication of the prior environmental document to which this Addendum is attached, but cultural resources were addressed in that document. The only item not completed was the required notice to tribes which have requested such notice pursuant to the Public Resources Code. As part of this Addendum, notice of the proposed project was mailed to tribes which had requested such notice, and no requests for consultation were received during the consultation period. Previously applied mitigation should be adequate to address potential impacts of the project, which require cessation of work should any item of cultural interest be found, to ensure the project will have a less than significant impact on cultural resources. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to Tribal Cultural Resources.

Mitigation Measures: Mitigation Measure 4.9-1 (cease work and consult with archeologist) and 4.9-2 (cease work and consult with paleontologist) remain applicable to the proposed project.

XIX. Utilities and Service Systems

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	SVS EIR Section 4.12.1 & 4.12.3	No	No	No	None
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	SVSP EIR Section 4.12.1	No	No	No	None
c) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?	SVSP EIR Section 4.12.3	No	No	No	None
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	SVSP EIR Section 4.12.4	No	No	No	None
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Same	No	No	No	None

Discussion: The SVSP EIR addressed water demand for the plan area and determined there was adequate supply to meet the anticipated water demands from development of the plan area. Water demand and supply is based on existing land use designations and population projections. Because the project is consistent with the existing land use designations and will be building the same number of units allocated to the site, the project is consistent with the prior analysis.

Development of the project area will require the construction of water lines and sewer lines and facilities, but these were previously identified through the infrastructure master plans developed for the SVSP. Additionally, the project will have no effect on wastewater generation beyond that previously analyzed in the SVSP EIR. Given the project is consistent with the existing land use designations, Environmental Utilities determined that the project falls within the scope of the prior assessment. The SVSP EIR concluded that the Pleasant Grove Wastewater Treatment Plan was sized to accommodate flow from the plan area and that impacts would be less than significant. This conclusion remains applicable to the proposed project.

The SVSP EIR indicated that the Western Placer Waste Management Authority facilities would be used to dispose of solid waste, and that there was sufficient capacity to accept solid waste from the SVSP. Solid waste generation is based on population, and as the project will not change the estimated population for the plan area, the project falls within the scope of the prior analysis, and does not result in any new or expanded impacts to this previously-identified significant and unavoidable impact.

As described above, changes introduced by the project and/or new circumstances relevant to the project would not, as compared to the SVSP EIR, result in a new significant impact or significant impacts that are substantially more severe than significant impacts previously disclosed. Therefore, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR or negative declaration have occurred.”

Mitigation Measures: Mitigation Measures 4.12.4-1 (expand the landfill) and 4.12.4-2 (diversion of construction debris) were included to require payment of fees to be used for landfill expansion and to require a 50% reduction in the construction waste stream. The landfill expansion measure has already been implemented, as fees are already in place that will apply to the proposed project. The remaining measure regarding diversion of construction debris remains applicable, as it is a project-level measure that applies during construction.

XX. Wildfire

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
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?	n/a	No	No	No	None
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?	n/a	No	No	No	None
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?	n/a	No	No	No	None
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?	n/a	No	No	No	None
Discussion: The Wildfire section was added to the CEQA Guidelines after the publication of the prior environmental document to which this Addendum is attached. The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local					

responsibility. Checklist questions a—d above do not apply, because the project site is not within a Very High Fire Hazard Severity Zone and is not in a CAL FIRE responsibility area. Therefore, there would be no impact to this criteria.

Mitigation Measures: None required for this Project.

XXI. Mandatory Findings of Significance

	Where Impact Was Analyzed in Prior Environmental Documents.	Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts?	Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information Requiring New Analysis or Verification?	Prior Environmental Documents Mitigation Measures Implemented or Addressing Impacts.
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 an endangered, threatened or rare species, or eliminate important examples of the major periods of California history or prehistory?	SVSP EIR	No	No	No	None
b) Does the project have impacts which 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.)	SVSP EIR	No	No	No	None
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	SVSP EIR	No	No	No	None
Discussion: Long term environmental goals are not impacted by the proposed project. The cumulative impacts do not deviate beyond what was contemplated in the SVSP EIR, and mitigation measures have already been incorporated. With implementation of the City’s Mitigating Ordinances, Guidelines, and Standards and best management practices, mitigation measures described in this chapter, and permit conditions, the proposed project will not have a significant impact on the habitat of any plant or animal species. Based on the foregoing, the project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of any wildlife species, or create adverse effects on human beings. Thus, pursuant to CEQA Guidelines section 15164, subdivision (a), the City finds that “none of the conditions described in Section 15162 calling for preparation of a subsequent FEIR have occurred” relative to the mandatory findings of significance.					

ENVIRONMENTAL DETERMINATION:

In reviewing the site specific information provided for this project and acting as Lead Agency, the City of Roseville, Development Services Department, Planning Division has analyzed the potential environmental impacts created by this project and determined that the findings of CEQA Section 15162 concerning the decision not to prepare a subsequent EIR or negative declaration and the findings of CEQA Section 15164 concerning the decision to prepare an Addendum can be made. As supported by substantial evidence within the Addendum to the Sierra Vista Specific Plan EIR (2008032115, adopted on May 5, 2010), the Lead Agency makes the following findings:

[X] No substantial changes are proposed in the project which would require major revisions of the previous EIR or Mitigated Negative Declaration.

[X] No substantial changes have occurred with respect to the circumstances under which the project is undertaken.

[X] There is no new information of substantial importance which was not known and could not have been known with the exercise of due diligence at the time the previous EIR was certified as complete or the Mitigated Negative Declaration was adopted.

[X] Only minor technical changes or additions are necessary in order to deem the adopted environmental document adequate.

Addendum Prepared by:

Kinarik Shallow

Kinarik Shallow, Associate Planner
City of Roseville, Development Services–Planning Division

Attachments:

1. SVSP Applicable Mitigation Measures
2. Arborist Report

TABLE OF APPLICABLE MITIGATION MEASURES

Mitigation Measure	Implementation	Timing	Reviewing Party	Documents to be Submitted to City	Staff Use Only
<p>MM 4.4-1 Dust and Construction Control Measures</p> <p>In accordance with the PCAPCD, the applicant shall comply with all applicable rules and regulations as listed above (e.g., Rule 202, 218 and 228). In addition, at the time of tentative map the applicant(s) shall implement a minimum of five (5) of the following measures unless superseded by state or other more stringent standards:</p> <p>The following mitigation measures shall be implemented to reduce short-term construction-related air quality impacts. In addition, dust control measures are required to be implemented by all projects in accordance with the City of Roseville Grading Ordinance, and the PCAPCD Fugitive Dust Rule 228.</p> <ul style="list-style-type: none"> Applicant shall submit to PCAPCD a Construction Emission / Dust Control Plan within 30 days prior to groundbreaking. If the PCAPCD does not respond within 20 days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower (HP) or greater) that will be used an aggregate of 40 or more hours for the construction project. If any new equipment is added after submission of the inventory, the prime contractor shall the prime contractor shall contact the APCD prior to the new equipment being utilized. The project representative shall provide PCAPCD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 HP) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_x reduction and 45% particulate reduction compared to the most recent ARB fleet average. PCAPCD shall be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure (http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls). <p>The following measures are also included to reduce construction-related ROG, NO_x, PM10 and PM2.5 emissions:</p> <ul style="list-style-type: none"> All construction equipment shall be maintained in good operating condition. Contractor shall ensure that all construction equipment is being properly serviced and maintained as per the manufacturer's specifications. Maintenance records shall be available at the construction site for verification. This measure will reduce combustion emissions of all criteria air pollutants. Prior to the issuance of any grading permits, all applicants shall submit construction plans denoting the proposed schedule and projected equipment use. Construction contractors shall provide evidence that low emission mobile construction will be used, or that their use was investigated and found to be infeasible for the project. Low emission equipment is defined as meeting the California Air Resources Board's Tier III standards. Contractors shall also conform to any construction measures imposed by the PCAPCD as well as City Planning Staff. This measure will primarily reduce ROG, NO_x, PM10, and PM2.5 exhaust emissions. Paints and coating shall be applied either by hand or by high volume, low-pressure spray. This measure will reduce evaporative ROG emissions. All construction shall comply with the following measures to reduce fugitive dust related emissions of PM10 and PM2.5: <ul style="list-style-type: none"> Maintain a minimum 24-inch freeboard on soil haul trucks or cover payloads using tarps or other suitable means. Suspend grading operations during high winds (greater than 15 mph). Sweep streets as necessary if silt is carried off-site to adjacent public thoroughfares or occurs as a result of hauling. 	<p>The applicants shall submit construction management plans as part of the Grading Permit application.</p> <p>Engineering will review plans for inclusion of these measures prior to issuance of permits or approval of plans.</p>	<p><i>Pre-Construction:</i> Prior to issuance of Grading Permits or Improvement Plans.</p> <p>Add as note on Improvement Plans.</p>	Engineering	Dust Control Plan and proof of submittal to PCAPCD	

<div><ul style="list-style-type: none">○ Dispose of surplus excavated material in accordance with local ordinances and use sound engineering practices.○ Schedule activities to minimize the amounts of exposed excavated soil during and after the end of work periods.○ Phase grading into smaller areas to prevent the susceptibility of larger areas to erosion over extended periods of time.○ Pave or apply gravel to any on-site haul roads.○ Reestablish ground cover on the construction site through seeding and water.○ Clean earth moving construction equipment with water or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with National Pollutant Discharge Elimination System Best Management Practices and the Roseville Grading Ordinance. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site.○ Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturers' specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours).○ Minimize diesel idling time to a maximum of five minutes.○ Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible.○ An applicant representative, ARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely (i.e., once per week) evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement for projects grading more than 20 acres in size, regardless of how many acres are to be disturbed daily.○ Construction equipment exhaust emissions shall not exceed the PCAPCD Visible Emissions Rule 202. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified and the equipment must be repaired within 72 hours.</div> <div><p>The following measures will be required:</p><ol style="list-style-type: none">1. Include the following standard note on the Improvement/Grading Plan: <i>If required by the Public Works Department, the contractor shall hold a pre-construction meeting prior to grading activities. The contractor shall invite the Placer County APCD to the pre-construction meeting in order to discuss the construction emission/dust control plan with employees and/or contractors.</i>2. Prior to building permit approval, the applicant shall show, on the plans submitted to the Building Department, that electrical outlets shall be installed on the exterior walls of both the front and back of all residences or all commercial buildings to promote the use of electric landscape maintenance equipment.3. Prior to building permit approval, the applicant shall show, on the plans submitted to the Building Department, provisions for construction of new residences, and where natural gas is available, the installation of a gas outlet for use with outdoor cooking appliances, such as a gas barbecue or outdoor recreational fire pits.4. Prior to building permit approval, in accordance with District Rule 225, only U.S. EPA Phase II certified wood burning devices shall be allowed in single-family residences. The emission potential from each residence shall not exceed a cumulative total of 7.5 grams per hour for all devices. Masonry fireplaces shall have either an EPA certified Phase II wood burning device or shall be a U.L. Listed Decorative Gas Appliance. (Rule 225)5. Wood burning or Pellet appliances shall not be permitted in multi-family developments. Only natural gas or propane fired fireplace appliances are permitted. These appliances shall be clearly delineated on the Floor Plans submitted in conjunction with the Building Permit application. (Rule 225 / section 302.2)6. Prior to the issuance of a Building Permit, the applicant shall show that all flat roofs with parapets shall include a white or silver cap sheet to reduce energy demands.7. Diesel trucks shall be prohibited from idling more than five minutes. Prior to the issuance of a Building Permit, the applicant shall show that all truck loading and unloading docks shall be</div>					
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<p>equipped with one 110/208 volt power outlet for every two dock doors. Diesel Trucks idling for more than five minutes shall be required to connect to the 110/208 volt power to run any auxiliary equipment. 2'x3' signage which indicates "Diesel engine Idling Limited to a Maximum of 5 Minutes" shall be shown on the building elevations and shall be submitted to the Placer County APCD prior to the issuance of Building Permits for the project.</p> <p>8. Prior to approval of Improvement Plans, an enforcement plan shall be established, and submitted to the APCD for review, in order to evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities on a weekly basis, using standards as defined in California Code of Regulations, Title 13, Sections 2180 – 2194. An Environmental Coordinator, hired by the prime contractor or property owner, and who is CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified by APCD and the equipment must be repaired within 72 hours. (California Code of Regulations, Title 13, Sections 2180 – 2194)</p> <p><i>The project shall comply with all applicable Placer County Air Pollution Control District rules and regulations, and shall obtain applicable permits and/or clearances from the District prior to the start of construction.</i></p> <ul style="list-style-type: none">• The contractor shall use CARB ultra-low sulfur diesel fuel for all diesel-powered equipment. In addition, low sulfur fuel shall be utilized for all stationary equipment. (California Standards for Motor Vehicle Diesel Fuel, title 13, article 4.8, chapter 9, California Code of Regulations).• Processes that discharge 2 pounds per day or more of air contaminants, as defined by Health and Safety Code Section 39013, to the atmosphere may require a permit. Permits are required for both construction and operation. Developers/contractors should contact the District prior to construction and obtain any necessary permits prior to the issuance of a Building Permit. (Rule 501)• Pursuant to the Placer County Air Pollution Control District Rule 501, General Permit Requirements, the proposed project may need a permit from the District prior to construction. In general, any engine greater than 50 brake horsepower or any boiler with heat greater than 1,000,000 Btu per hour shall require a permit issued by the District. (Rule 501)• All on-site stationary equipment which is classified as 50 hp or greater shall either obtain a state issued portable equipment permit or a Placer County APCD issued portable equipment permit. (California Portable Equipment Registration Program, Section 2452).• The contractor shall utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators if feasible.• During construction, the contractor shall minimize idling time to a maximum of 5 minutes for all diesel powered equipment.• During construction, traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less. (Rule 228 / section 401.2)					
<p>MM 4.6-2 & 4.4-1 Commercial Noise Controls</p> <p>For all commercial uses within 150 feet of residential uses, the developer shall implement the following or equally effective measures:</p> <ul style="list-style-type: none">• In general, where commercial land uses adjoin residential property lines, the following measures should be included in the design of the commercial use. If the primary noise sources are parking lot noise, HVAC equipment and light truck deliveries, then 6-7 foot tall masonry walls shall be constructed to provide adequate isolation of parking lot and delivery truck activities. HVAC equipment shall be located either at ground level, or when located on roof-tops the building facades shall include parapets for shielding.• Where commercial uses adjoin common residential property lines, and loading docks or truck circulation routes face the residential areas, the following mitigation measures shall be included in the project design:<ul style="list-style-type: none">○ Loading docks and truck delivery areas shall maintain a minimum distance of 30 feet from residential property lines;○ Property line barriers shall be 6 to 8 feet in height. Circulation routes for trucks should be located a minimum of 30-feet from residential property lines;	Project plans will be reviewed for compliance.	<i>Pre-Construction:</i> Prior to issuance of Improvement Plans and/or Building Permits Add as note on Improvement Plans and Building Plans	<u>Engineering</u> will review Improvement Plans for compliance with wall requirements. <u>Building</u> will review Building Plans for compliance with HVAC requirements.	Acoustical Study if loading docks or truck delivery routes are less than 100 feet from residential property lines	

<ul style="list-style-type: none"> ○ All heating, cooling and ventilation equipment shall be located within mechanical rooms where possible; ○ All heating, cooling and ventilation equipment shall be shielded from view with solid barriers; ○ Emergency generators shall comply with the local noise criteria at the nearest noise-sensitive receivers; <p>In cases where loading docks or truck delivery circulation routes are located less than 100 feet from residential property lines, an acoustical evaluation shall be submitted to verify compliance with the City of Roseville Noise Level Performance Standards.</p>					
<p>MM 4.6- 4: Traffic Noise Attenuation</p> <p>MM 4.6-4(a): Masonry walls and/or landscaped berms shall be constructed along the major project-area roadways adjacent to proposed residential uses if acoustical studies warrant sound attenuation, otherwise standard wood fencing is acceptable. Draft EIR Table 4.6-10 data shall be consulted to determine appropriate barrier heights. If the assumptions shown in Table 4.6-10 vary considerably, a detailed analysis of exterior and interior mitigation measures should be conducted when tentative maps become available.</p> <p>MM 4.6-4(b): In areas requiring sound attenuation, noise barrier walls shall be constructed of concrete panels, concrete masonry units, earthen berms, or any combination of these materials. Wood is not recommended for construction due to eventual warping and degradation of acoustical performance.</p> <p>MM 4.6-4c: Tentative map applications for residential uses located along Fiddymont Road would be required to include an analysis of interior noise levels. The report shall be conducted by a qualified acoustical engineer and shall specify the measures required to achieve compliance with the City of Roseville 45 dB Ldn interior noise level standard.</p>	<p>The developer shall construct walls in locations consistent with the walls exhibit of the Specific Plan, which shall be a minimum of six feet tall per the Draft EIR. The developer shall include wall and/or landscaped berm details as part of Improvement Plans which demonstrate consistency with the design requirements of the measure.</p>	<p><i>Pre-Construction:</i> Prior to issuance of Improvement Plans.</p> <p>Add as note on Improvement Plans and Building Plans</p>	<p>Engineering to review plans for consistency with measure.</p>	<p>An acoustical Study, if conditions or plans deviate from Specific Plan or EIR.</p>	
<p>WMM 4.7-13 Riparian Habitat Policies</p> <p>To protect riparian vegetation within the SOI Amendment Area SVSP and Urban Reserve areas, the following policies shall be implemented:</p> <p>a) The project applicant shall provide for temporary fencing along the top of the bank during construction of those areas of the proposed project adjacent to riparian habitat to discourage access to the riparian habitat by humans and pets.</p> <p>b) The project applicant shall provide for permanent fencing and/or a landscape barrier to discourage access to the riparian habitat by humans and pets. The fencing and/or landscape barrier shall be placed at the top of the bank of the creeks along those portions of the site adjacent to riparian habitat. The proposed recreation trail shall be on the project site side of the fence/landscape barrier. The fencing and/or landscape barrier shall be constructed of wood or other natural materials and shall allow for the viewing of the riparian habitat while discouraging access.</p> <p>c) Interpretive signs and displays shall be posted along the border of the riparian area to educate the public and route access away from sensitive areas. These informative signs will be posted at intervals determined appropriate by the City of Roseville Parks and Recreation Director along the border with information regarding the objectives of creek and riparian habitat protection. Signs should also include information regarding the importance of restricting access to the riparian area by household pets. Such signs will be made of wood or similar natural material, and be maintained by the Applicant.</p> <p>d) Lighting adjacent to riparian buffers should be shielded away from the riparian areas.</p>	<p>The applicants shall design the project to avoid and preserve riparian vegetation.</p>	<p><i>Pre-Construction:</i> Temporary fencing shall be installed prior to construction. Permanent measures shall be shown on Improvement Plans.</p> <p>Add as note on Improvement Plans.</p>	<p>Engineering and Parks</p>	<p>None</p>	
<p>Use Low-Glare Materials for New Development</p> <p>In order to reduce the effects of daytime glare from development of commercial or office uses within the SVSP Area, building developers should make use, when feasible, of low-glare materials.</p> <p>MM 4.14-3 Avoid Light Spill Over into Curry Creek and Open Space Areas</p> <p>Outdoor lighting shall be placed, designed and directed so as to avoid light spillover into the habitat of Curry Creek and the Open Space Preserve areas located immediately adjacent to the open space, as shown on the Land Use Map as parcels KT-1, KT-40, KT-30, KT-41, DF-1, DF-2, DF-40, CG-1, CG-82m JM-21, JM-3, and JM-4.</p>	<p>Comply with the measure</p>	<p><i>Pre-Construction:</i> Ensure fixtures shown on Improvement Plans and Building Plans comply with the measure.</p> <p>Add as note on Improvement Plans and Building Plans</p>	<p>Engineering and Building</p>	<p>None</p>	

<p>MM 4.6-1 Construction Noise Reduction</p> <p>MM 4.6-1(a): Construction activities shall comply with the requirements of the City of Roseville Noise Ordinance.</p> <p>MM4.6-1(b): Locate fixed construction equipment such as compressors and generators as far as possible from sensitive receptors. Shroud or shield all impact tools, and muffle or shield all in-take and exhaust ports on power construction equipment.</p> <p>MM 4.6-1(c): Designate a construction disturbance coordinator and conspicuously post the Coordinator’s contact information around the project site and in adjacent public spaces. The disturbance coordinator will receive all public complaints about construction noise disturbances, and will be responsible for determining the cause of the complaint, and implementing any feasible measures to be taken to alleviate the problem.</p> <p>MM 4.6-1(d): Well drilling shall occur prior to construction of the adjacent subdivision, to the extent feasible. If construction timing for the wells occurs after subdivision construction, then measures to reduce noise shall include; hanging flexible sound control curtains around the drilling apparatus, and the drill rig, to the degree feasible, as determined by the Environmental Utilities Director, if located within 1,000-feet of an occupied residence.</p>	<p>Discuss during pre-construction meeting and comply with the measure.</p>	<p><i>Pre-Construction and Construction:</i> During construction for MM 4.6-1(d), and prior to issuance of Improvement Plans and/or Building Permits for all others.</p> <p>Add as note on Improvement Plans and Building Plans</p>	<p>Engineering staff to discuss this measure during pre-construction meeting and ensure posting has occurred.</p> <p>Environmental Utilities to address well drilling.</p>	<p>None</p>	
<p>MM 4.8-3 Avoid Nesting Sites</p> <p>To ensure that fully protected bird and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures:</p> <p><i>Raptors</i></p> <p>a) When feasible, all tree removal shall occur between August 30th and February 15th to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area.</p> <p>b) For Swainson’s hawk, if avoidance of tree removal outside the breeding season is not feasible, and a nest is present, the applicants would be required to obtain a 2081 permit from CDFG to mitigate for potential “take” under CESA. If no nesting is occurring, a take permit would not be required.</p> <p>c) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15th and August 30th, all trees and potential burrowing owl habitat within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or burrows by a qualified biologist no more than 30-days prior to disturbance. If active raptor nests or burrows are found, and the site is within 350-feet of potential construction activity, a highly visible temporary fence shall be erected around the tree or burrow(s) at a distance of up to 350-feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area.</p> <p>d) Preconstruction and non-breeding season exclusion measures shall be developed in consultation with CDFG, and shall preclude burrowing owl occupation of the portions of the project site subject to disturbance such as grading. Burrowing owls may be passively excluded from burrows in construction areas by placing one-way doors in the burrows according to CDFG protocol. The one-way doors must be in place for a minimum of three days. All burrows that may be occupied by burrowing owls regardless of whether they exhibit signs of occupation must be cleared with the one way doors. Burrows that have been cleared through the use of the one-way doors shall then be closed or backfilled to prevent owls from entering the burrow.</p> <p>e) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zones) unless directly related to the management or protection of the legally protected species.</p> <p>f) If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30th or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist.</p> <p><i>Black Rails and Tri-colored Blackbirds</i></p> <p>Prior to earth moving that would disturb marsh habitat, a qualified biologist shall conduct surveys to determine the presence of the California black rail. If either of these species is found, all earth moving within 250 feet shall stop and measures, including establishing nest protection buffers along both sides of Curry Creek during the nesting season (generally February 1 through August 31st) shall be implemented.</p> <p><i>Rookeries</i></p> <p>No heron rookeries are present within the plan area. Prior to earthmoving that would disturb marsh habitat or tree removal of the eucalyptus grove, pre-construction surveys should be conducted to verify</p>	<p>Results of preconstruction surveys shall be submitted prior to the issuance of a grading permit or Improvement Plans. Applicable construction restrictions shall be reflected within plans. The applicants shall prepare annual reports on the status and success of mitigation and shall submit these reports to USFWS and CDFG. The applicants shall coordinate with USFWS and CDFG to modify as necessary any mitigation plans in an effort to attain mitigation success.</p>	<p><i>Pre-Construction and Construction:</i> Surveys required prior to construction. If surveys are positive for birds, then remainder of mitigation steps are required prior to construction.</p> <p>Add as note on Improvement Plans.</p>	<p>Engineering</p>	<p>Nesting bird surveys</p>	

that no rookeries have been established. If rookeries are present all earth moving within 250-feet shall stop, during the breeding season.					
MM 4.13-1 Implementation of construction activity stormwater protection standards Prior to the issuance of a City grading permit and the commencement of construction activities, compliance with the State’s General Construction permit, the City of Roseville’s Construction Standards, and the City’s Stormwater BMP Guidance Manual will be met. This includes the creation of a Storm Water Pollution Prevention Plan (SWPPP) that will identify the site, the location of sensitive habitats or watercourses, drainage areas, discharge locations, soil disturbance areas, and the locations of all runoff, erosion control, and sediment control Best Management Practices (BMPs). On-going monitoring and adjustments to the SWPPP will occur when needed to address changes in the field as construction activities evolve.	The developer shall create a SWPPP, submit it to the City, and comply with its provisions.	<i>Pre-Construction and Construction:</i> Submit SWPPP and ensure that BMPs remain in place during construction. Add as note on Improvement Plans and Building Plans.	Engineering	SWPPP	
MM 4.9-1 Cease Work and Consult with Qualified Archaeologist Should any cultural resources, such as structural features, any amount of bone or shell, artifacts, human remains, or architectural remains, be encountered during any subsurface development activities, work shall be suspended within 100-feet of the find. The City of Roseville Planning and Public Works Staff shall be immediately notified. At that time, the City of Roseville shall coordinate any necessary investigation of the site with qualified archaeologists as needed, to assess the resource (i.e., whether it is an “historical resource” or a “unique archaeological resource”) and provide proper management recommendations should potential impacts to the resources be found to be significant. Possible management recommendations for important resources could include resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, data recovery excavations. The contractor shall implement any measures deemed feasible and necessary by City staff, in consultation with the archaeologists, to be to avoid or minimize significant effects to the cultural resources. In addition, pursuant to Section 5097.98 or the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	This condition shall be reflected in all construction and building plans, and construction site workers shall be advised by the site manager of this measure.	<i>Construction:</i> Measure applies if resources are discovered during construction. Add as note on Improvement Plans and Building Plans.	Engineering and Building	None	
Mitigation Measure 4.9-3 Cease Work and Consult with Qualified Paleontologist Should any evidence of paleontological resources (e.g. fossils) be encountered during grading or excavation, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance, if feasible in light of project design or layout, or data recovery excavations. The contractor shall implement any measures deemed feasible and necessary by City staff in consultation with the paleontologist for the protection of the paleontological resources.	This condition shall be reflected in all construction and building plans, and construction site workers shall be advised by the site manager of this measure.	<i>Construction:</i> Measure applies if resources are discovered during construction. Add as note on Improvement Plans and Building Plans.	Engineering and Building	None	
MM 4.10-1 Identify Potential Hazardous Materials (soil contamination, tank or well sites, lead based paint and/or asbestos) Prior to site development in the SVSP, recommended testing and remediation, if needed shall occur. Groundwater wells shall be properly closed. If evidence of soil contamination, septic tanks, or other underground storage tanks are encountered in previously unidentified locations in the SVSP area, work shall cease until the area can be tested, and if necessary remediated and/or properly removed or closed. Remediation activities could include removal of contaminated soil, and/or onsite treatment. As part of the process, the City shall ensure that any necessary investigation and/or remediation activities are coordinated with the Roseville Fire Department, Placer County Division of Environmental Health, and if needed, other appropriate federal, state and local agencies. Once a site is remediated, construction can continue.	The applicants shall be responsible for conducting soil testing and and/or recommendation of the Phase I environmental site assessments, if conditions are encountered which warrant such studies.	<i>Construction:</i> Applies if conditions found which warrant assessment (e.g. stained soils, underground tanks). Add as note on Improvement Plans.	Engineering and Fire	Phase I environmental assessment, if conditions warrant	
MM 4.12.4-2 Divert Construction Debris The applicants shall ensure a 50% reduction in the construction waste stream generated from development within the SVSP. In Developer contracts with construction contractors and their sub-contractors, the Developer shall require that construction waste be reduced by 50%. The Developer shall further require that contractors and sub-contractors submit records of diversion and disposal to the City’s Environmental Utilities Department in order to verify compliance with this requirement.	Comply with the measure	<i>Construction:</i> Contractor to ensure diversion occurs during construction. Add as note on Improvement Plans and Building Plans.	Environmental Utilities	Records of diversion	

NOTE: This table is provided as a courtesy to the developer, to highlight the text of measures which are required to be placed on Improvement Plans and/or Building Plans. Refer to the applicable environmental document (e.g. Environmental Impact Report) for a full list of measures, and for context. Other measures may be applicable, but are not included here because they have already been completed or they are addressed via other mechanisms (e.g. development fees).



California Tree and Landscape Consulting, Inc.

June 4, 2021

Laura Zuckerman
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Via Email: lzuckerman@tcsplanning.com

PRELIMINARY ARBORIST REPORT & TREE INVENTORY

RE: Sierra Vista, 6400 Baseline Road, APN 499-010-014, City of Roseville Jurisdiction

Executive Summary

Towne Development of Sacramento contacted California Tree and Landscape Consulting, Inc. to inventory and evaluate the trees on the site for purposes of providing preliminary tree information for planning for development of the parcel. The property is located at 6400 Baseline Road, in the City of Roseville, California, and is subject to the jurisdiction of Roseville. See Supporting Information Appendix 1 – Tree Inventory Map.

Edwin E. Stirtz, ISA Certified Arborist #WE-0510A, and Thomas M. Stein, ISA Certified Arborist WE-12854A, were on the site on May 5, 2021, to provide species identification, measurements of diameter and canopy, field condition notes, and arborist ratings. A total of 41 trees were included in the inventory, 9 of which are protected by the City of Roseville Tree Preservation Municipal Code 19.66.

Tree Species	Trees Inven- to- ried	Trees on the Site ¹	Protected Trees	Trees Proposed for Removal	Trees impacted by the proposed development and requiring special protection measures	Predicted Impact	Diameter Inches Proposed for Removal or Impact
Interior Live Oak	2	2	2	1	n/a	n/a	n/a
Non-Protected: Aleppo Pine, Almond, American Elm, Arizona Cypress, Black Locust, Black Walnut, Casuarina, Eucalyptus, European Olive, Honey Locust, Interior Live Oak, Mulberry, Oregon Ash, Unknown	39	39	0	13	n/a	n/a	n/a
Totals	41	41	2	14	n/a	n/a	n/a

See Appendices for specific information on each tree and preservation requirements and/or restrictions.

¹ CalTLC is not a licensed land surveyor. Tree locations are approximate and we do not determine tree ownership. Trees which appear to be on another parcel are listed as off-site and treated as the property of that parcel.

Methods

Appendix 2 in this report is the detailed inventory of the trees. The following terms will further explain our methods and findings.

The protected trees evaluated as part of this report have a numbered tag that was placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: CalTLC, Auburn, CA with 1/4" pre-stamped tree number and Tree Tag. They are attached with a natural-colored aluminum 10d nail, installed at approximately 6 feet above ground level on the approximate north side of the tree. The tag should last ~10-20+ years depending on the species, before it is enveloped by the trees' normal growth cycle.

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Location: The GPS location of each tree was collected using the ESRI's ArcGIS collector application on an Apple iPhone or Samsung. The data was then processed in ESRI's ArcMap by Julie McNamara, M.S. GISci, to produce the Tree Location Map.

Tree Measurements: DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted. A steel diameter tape was used to measure the diameter. A Stanley laser distance meter was used to measure distances. Canopy radius measurements may also have been estimated due to obstructions, such as steep slopes, fences, or other trees.

Terms

Field Tag #	The pre-stamped tree number on the tag which is installed at approximately 6 feet above ground level on the north side of the tree.
Old Tag #	If additional field tags are found on the trees and are legible, they are listed here.
Species	The species of a tree is listed by our local and correct common name and botanical name by genus (capitalized) and species (lower case). Oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.
DBH	Diameter breast high' is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted in the next column "measured at"
Measured at	Height above average ground level where the measurement of DBH was taken.
Canopy Radius	The farthest extent of the crown composed of leaves and small twigs. Most trees are not evenly balanced. This measurement represents the longest extension from the trunk to the outer canopy. The dripline measurement is from the center point of the tree and is shown on the Tree Location Map as a circle. This measurement further defines the protection zone if specified in the local ordinance as such or can indicate if pruning may be required for development
Protected Root Zone	The radius of the protected root zone is a circle equal to the trunk diameter inches converted to feet and factored by tree age, condition and health pursuant to the industry standard. Best Management Practices: Managing Trees During Construction, the companion publication to the Approved American National Standard, provides guidance regarding minimum tree root protection zones for long term survival. In instances where a tree is multi-stemmed, the protected root zone is equal to the extrapolated diameter (sum of the area of each stem converted to a single stem) factored by tree age, condition and health.

Arborist Rating Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection.

No problem(s)	Excellent	5	No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect
No apparent problem(s)	Good or Fair to Good	4	The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.
Minor problem(s)	Fair	3	The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated and/or health can be improved.
Major or uncorrectable problems (2)	Fair to Poor	2	The tree has major problems. If the option is taken to preserve the tree, additional evaluation to identify if health or structure can be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. Additionally, risk should be evaluated as a tree rated 2 may have structural conditions which indicate there is a high likelihood of some type of failure. Tree rated 2 should be removed if these additional evaluations will not be performed.
Extreme problem(s)	Poor	1	The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.
Dead	Dead	0	This indicates the tree has no significant sign of life.

Notes: Provide notable details about each tree which are factors considered in the determination of the tree rating including: (a) condition of root crown and/or roots; (b) condition of trunk; (c) condition of limbs and structure; (d) growth history and twig condition; (e) leaf appearance; and (f) dripline environment. Notes also indicate if the standard tree evaluation procedure was not followed (for example - why DBH may have been measured at a location other than the standard 54"). Additionally, notes will list any evaluation limiting factors such as debris at the base of a tree.

Actions Recommended actions to increase health and longevity.

Development Impacts Projected development impacts are based solely on distance relationships between tree location and grading. Field inspections and findings during the project at the time of grading and trenching can change relative impacts. Closely followed guidelines and requirements can result in a higher chance of survival, while requirements that are overlooked can result in a dramatically lower chance of survival. Impacts are measured as follows:

Impact Term:**Long Term Result of Impact:**

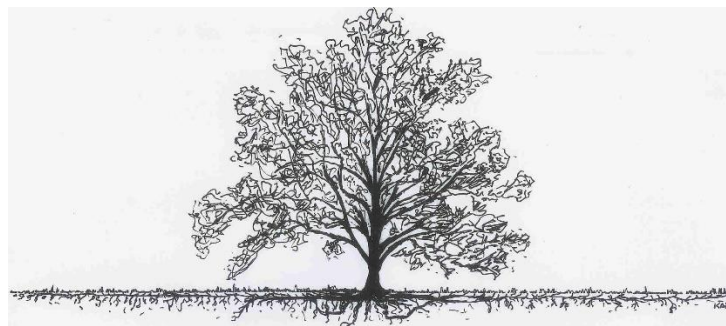
Negligible	Tree is unlikely to show any symptoms. Chance of survival post development is excellent. Impacts to the Protected Root Zone are less than 5%.
Minor	Tree is likely to show minor symptoms. Chance of survival post development is good. Impacts to the Protected Root Zone are less than 15% and species tolerance is good.
Moderate	Tree is likely to show moderate symptoms. Chance of survival post development is fair. Impacts to the Protected Root Zone are less than 35% and species tolerance is good or moderate.
Severe	Tree is likely to show moderate symptoms annually and a pattern of decline. Chance of long-term survival post development is low. Impacts to the Protected Root Zone are up to 50% and species tolerance is moderate to poor.
Critical	Tree is likely to show moderate to severe symptoms annually and a pattern of decline. Chance of long-term survival post development is negligible. Impacts to the Protected Root Zone are up to 80%.

Discussion

Trees need to be protected from normal construction practices if they are to remain on the site and are expected to survive long term. While construction damage in the root zone is often the death of a tree, the time from when the damage occurs to when the symptoms begin and/or the tree dies can be years. Our recommendations are based on experience and the local ordinance requirements to enhance tree longevity. It requires the calculated root zone must remain intact as an underground ecosystem despite the use of heavy equipment to install foundations, driveways, underground utilities, and landscape irrigation systems. Simply walking and driving on soil can have serious consequences to tree health. The Tree Preservation Requirements and General Development Guidelines should be incorporated into the site plans and enforced onsite. The project arborist should be included in the development team during construction to provide expertise and make additional recommendations if additional impacts occur or tree response is poor.

Root Structure

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy. The correct root structure of a tree is in the drawing below. All plants' roots need both water and air for survival. Poor canopy development or canopy decline in mature trees after development is often the result of inadequate root space and/or soil compaction.



The reality of where roots are generally located

Pruning Mature Trees for Risk Reduction and/or Development Clearance

There are few good reasons to prune mature trees. Removal of deadwood, directional pruning, removal of decayed or damaged wood, and end-weight reduction as a method of mitigation for structural faults are the only reasons a mature tree should be pruned. Live wood over 3" should not be pruned unless absolutely necessary. Pruning cuts should be clean and correctly placed. Pruning should be done in accordance with the American National Standards Institute (ANSI) A300 standards.

Pruning causes an open wound in the tree. Trees do not "heal" they compartmentalize. It is far better to use more small cuts than a few large cuts as small pruning wounds reduce risk while large wounds increase risk. Any wound made today will always remain, but a healthy tree, in the absence of decay in the wound, will 'cover it' with callus tissue. Large, old pruning wounds which did not close with callous tissue often have advanced decay. These wounds are a likely failure point. Mature trees with large wounds have a high risk of failure.

Overweight limbs are a common structural fault in suppressed trees. There are two remedial actions for over-weight limbs (1) prune the limb to reduce the extension of the canopy, or (2) cable the limb to reduce movement. Cables do not hold weight they only stabilize the limb and additionally require annual inspection.

Arborist Classifications

There are different types of Arborists:

Tree Removal and/or Pruning Companies: These companies may be licensed by the State of California to do business as a tree removal company, but they do not necessarily know anything about trees biology.

Arborists: Arborist is a broad term intended to mean someone with specialized knowledge of trees, but it is often used to imply knowledge that is not there.

ISA Certified Arborist: An International Society of Arboriculture Certified Arborist is someone who has trained, met the qualifications for application, and been tested to have specialized knowledge of trees. You can look up certified arborists at the International Society of Arboriculture website: isa-arbor.org.

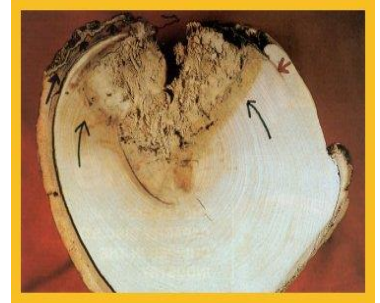
Consulting Arborist: An American Society of Consulting Arborists Registered Consulting Arborist is someone who has been trained and then tested to have specialized knowledge of trees; and trained and tested to provide high quality reports and documentation. You can look up registered consulting arborists at the American Society of Consulting Arborists website: ASCA-consultants.org.

Decay in Trees

Decay (in General): Fungi cause all decay of living trees. Decay is considered a disease because cell walls are altered, wood strength is affected, and living sapwood cells may be killed. Fungi decay wood by secreting enzymes. Different types of fungi cause different types of decay through the secretion of different chemical enzymes. Some decays, such as white rot, cause less wood strength loss than others because they first attack the lignin (causes cell walls to thicken and reduces susceptibility to decay and pest damage) secondarily the cellulose (another structural component in a cell walls). Others, such as soft rot, attack the cellulose chain and cause substantial losses in wood strength even in the initial stages of decay. Brown rot causes wood to become brittle and fractures easily with tension. Identification of internal decay in a tree is difficult because visible evidence may not be present.



According to Evaluation of Hazard Trees in Urban Areas (Matheny, 1994) decay is a critical factor in the stability of the tree. As decay progresses in the trunk, the stem becomes a hollow tube or cylinder rather than a solid rod. This change is not readily apparent to the casual observer. Trees require only a small amount of bark and wood to transport water, minerals and sugars. Interior heartwood can be eliminated (or degraded) to a great degree without compromising the transport process. Therefore, trees can contain significant amounts of decay without showing decline symptoms in the crown. Compartmentalization of decay in trees is a biological process in which the cellular tissue around wounds is changed to inhibit fungal growth and provide a barrier against the spread of decay agents into additional cells. The weakest of the barrier zones is the formation of the vertical wall. Accordingly, while a tree may be able to limit decay progression inward at large pruning cuts, in the event that there are more than one pruning cut located vertically along the main trunk of the tree, the likelihood of decay progression and the associated structural loss of integrity of the internal wood is high.



Oak Tree Impacts

Our native oak trees are easily damaged or killed by having the soil within the Protected Root Zone (PRZ) disturbed or compacted. All of the work initially performed around protected trees that will be saved should be done by people rather than by wheeled or track type tractors. Oaks are fragile giants that can take little change in soil grade, compaction, or warm season watering. Don't be fooled into believing that warm season watering has no adverse effects on native oaks. Decline and eventual death can take as long as 5-20 years with poor care and inappropriate watering. Oaks can live hundreds of years if treated properly during construction, as well as later with proper pruning, and the appropriate landscape/irrigation design.

RECOMMENDATIONS: Summary of Tree Protection Measures

The Owner and/or Developer should ensure the project arborist's protection measures are incorporated into the site plans and followed. Tree specific protection measures can be found in Appendix 2 – Tree Data.

- The project arborist should inspect the fencing prior to grading and/or grubbing for compliance with the recommended protection zones.
- All stumps within the root zone of trees to be preserved shall be ground out using a stump router or left in place. **No trunk within the root zone of other trees shall be removed using a backhoe or other piece of grading equipment.**
- Prior to any grading, or other work on the site that will come within 50' of any tree to be preserved, irrigation will be required from April through September and placement of a 4-6" layer of chip mulch over the protected root zone of all trees that will be impacted. Chips should be obtained from onsite materials and trees to be removed.
- Clearance pruning should include removal of all the lower foliage that may interfere with equipment PRIOR to having grading or other equipment on site. The Project Arborist should approve the extent of foliage elevation and oversee the pruning to be performed by a contractor who is an ISA Certified Arborist.

- Clearly designate an area on the site outside the drip line of all trees where construction materials may be stored, and parking can take place. No materials or parking shall take place within the root zones of protected trees.
- Any and all work to be performed inside the protected root zone fencing shall be supervised by the project arborist.
- Trenching inside the protected root zone shall be by a hydraulic or air spade, placing pipes underneath the roots, or boring deeper trenches underneath the roots.
- Follow all of the General Development Guidelines, Appendix 3, for all trees.

Report Prepared by:



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Certified Arborist WE-0510A
ISA Tree Risk Assessment Qualified
Member, American Society of Consulting Arborists

Enc.: Appendix 1 – Tree Inventory Map
Appendix 2 – Tree Data
Appendix 3 – General Development Guidelines

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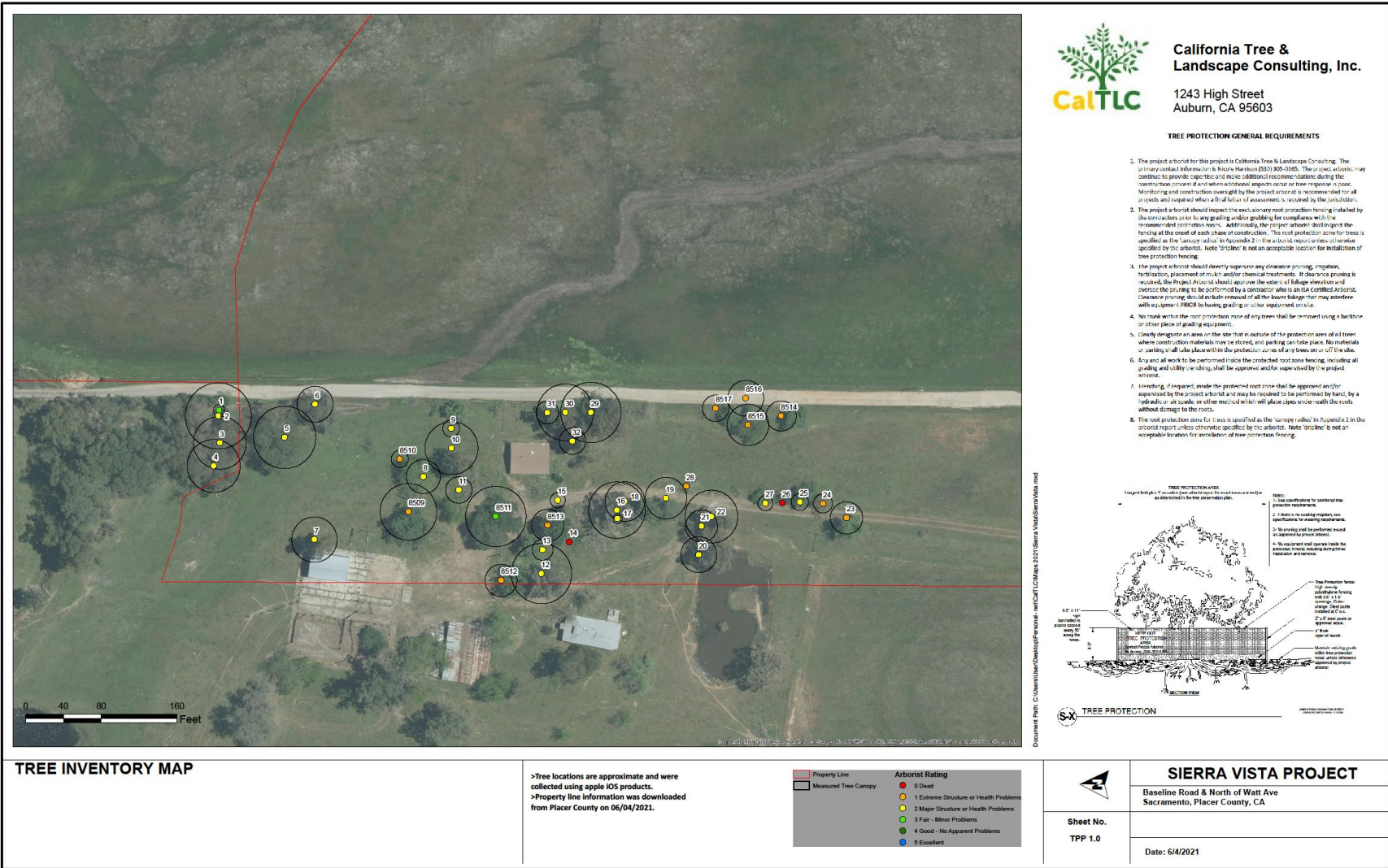
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APPENDIX 1 – TREE INVENTORY MAP



APPENDIX 2 – TREE DATA

Tag #	Old Tag #	Protected By Code	Offsite	Common Name	Botanical Name	Multi-Stems	DBH	Measured At	Measured Canopy Radius	Arborist Rating	Notes	Recommendations
Non-Protected Trees*												
1		No	No	Interior Live Oak	<i>Quercus wislizeni</i>		5	54	6	3 Fair - Minor Problems	Substandard size tree adjacent to the gravel road. 3" Live Oak 3' south.	None at this time.
2		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		45	54	35	2 Major Structure or Health Problems	Large Eucalyptus forks 4.5' above grade with weak attachments.	None at this time.
3		No	No	Eucalyptus	<i>Eucalyptus globulus</i>	14,17	31	54	28	2 Major Structure or Health Problems	Forks 1' above grade with weak attachments. Above average amount of dead branches.	None at this time.
4		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		16	54	28	2 Major Structure or Health Problems		None at this time.
5		No	No	Eucalyptus	<i>Eucalyptus globulus</i>	29,33	62	54	33	2 Major Structure or Health Problems	Two smaller Eucalyptus trees directly north of this tree.	None at this time.
6		No	No	Eucalyptus	<i>Eucalyptus globulus</i>	12,12	24	54	19	2 Major Structure or Health Problems	Forks at grade. One 12" Eucalyptus to the north. Two trees to the south (one 13" and one 10,11,12").	None at this time.
7		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		24	54	24	2 Major Structure or Health Problems	Growing adjacent to old barn. Reaction growth over concrete slab.	None at this time.
8		No	No	Black Locust	<i>Robinia pseudoacacia</i>		15	54	18	2 Major Structure or Health Problems	Single stem. Poor condition. Excessive deadwood and sparse foliage.	None at this time.
9		No	No	Unknown	<i>Unknown</i>		10	54	9	2 Major Structure or Health Problems		None at this time.
10		No	No	Eucalyptus	<i>Eucalyptus globulus</i>	12,13,28	53	54	28	2 Major Structure or Health Problems	One-sided south. Smaller Eucalyptus directly north with stems 12,14".	None at this time.
11		No	No	Honey Locust	<i>Gleditsia triacanthos</i>		8	54	14	2 Major Structure or Health Problems	One stem surrounded by 4 volunteers, 4-5" each. Poor condition.	None at this time.
12		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		47	54	32	2 Major Structure or Health Problems	Forks 4.5' above grade into 2 large stems, both leaning northwest.	Recommend removal due to nature and extent of defects.

Tag #	Old Tag #	Protected By Code	Offsite	Common Name	Botanical Name	Multi-Stems	DBH	Measured At	Measured Canopy Radius	Arborist Rating	Notes	Recommendations
13		No	No	Almond	<i>Prunus dulcis</i>		12	54	11	2 Major Structure or Health Problems	Tree is 95% dead.	None at this time.
14		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		25	54		0 Dead	Tree is dead	Recommend removal due to nature and extent of defects.
15		No	No	Arizona Cypress	<i>Cupressus arizonica</i>		12	54	8	2 Major Structure or Health Problems		None at this time.
16		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		25	54	30	2 Major Structure or Health Problems	Dead branches, leans.	None at this time.
17		No	No	Arizona Cypress	<i>Cupressus arizonica</i>		7	54	5	2 Major Structure or Health Problems		None at this time.
18		No	No	Aleppo Pine	<i>Pinus halepensis</i>		23	54	21	2 Major Structure or Health Problems	Trunk leans south and bends east.	None at this time.
19		No	No	Casuarina	<i>Casuarina equisetifolia</i>		17	54	22	2 Major Structure or Health Problems		None at this time.
20		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		25	36	19	2 Major Structure or Health Problems		None at this time.
21		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		15	54	17	2 Major Structure or Health Problems		None at this time.
22		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		17	54	28	2 Major Structure or Health Problems		None at this time.
23		No	No	American Elm	<i>Ulmus americana</i>		26	54	17	1 Extreme Structure or Health Problems	Poor condition. Forks into codominant stems 5' above grade. Northerly stem broken 9' above grade. Tree is 90% dead.	Recommend removal due to nature and extent of defects.
24		No	No	Almond	<i>Prunus dulcis</i>	5,6,8,12	31	54	10	1 Extreme Structure or Health Problems	Above average dead branches.	Recommend removal due to nature and extent of defects.
25		No	No	Almond	<i>Prunus dulcis</i>	8,8	16	54	9	2 Major Structure or Health Problems		None at this time.

Tag #	Old Tag #	Protected By Code	Offsite	Common Name	Botanical Name	Multi-Stems	DBH	Measured At	Measured Canopy Radius	Arborist Rating	Notes	Recommendations
26		No	No	Almond	<i>Prunus dulcis</i>	5,6	11	54	3	0 Dead	Tree is dead.	Recommend removal due to nature and extent of defects.
27		No	No	Almond	<i>Prunus dulcis</i>	4,4,5,5,5	23	54	8	2 Major Structure or Health Problems	Poor condition.	None at this time.
28		No	No	Mulberry	<i>Morus</i>		16	36	2	1 Extreme Structure or Health Problems	Tree is 90% dead.	Recommend removal due to nature and extent of defects.
29		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		30	54	32	2 Major Structure or Health Problems		None at this time.
30		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		34	54	30	2 Major Structure or Health Problems	5 small Eucalyptus 3-4" beneath this tree and the previous tree.	None at this time.
31		No	No	European Olive	<i>Olea europaea</i>	3,4,5,7	19	54	12	2 Major Structure or Health Problems	Poor structure.	None at this time.
32		No	No	Eucalyptus	<i>Eucalyptus globulus</i>		13	54	14	2 Major Structure or Health Problems		None at this time.
8509	1509	Yes	No	Black Walnut	<i>Juglans nigra</i>	10,11,13,19	53	54	30	1 Extreme Structure or Health Problems	Branches 1' above grade. Large basal cavity. Moderate decay. Canopy ~50% dead.	Recommend removal due to nature and extent of defects.
8510		Yes	No	Oregon Ash	<i>Fraxinus latifolia</i>		8	54	9	1 Extreme Structure or Health Problems	Trunk split from grade to 12' above grade. Half missing with extreme decay.	Recommend removal due to nature and extent of defects.
8512	1589	Yes	No	Black Walnut	<i>Juglans nigra</i>		17	54	17	1 Extreme Structure or Health Problems	Trunk leans slightly south. Codominant branching at 5' above grade with included bark. Canopy is 70% dead.	Recommend removal due to nature and extent of defects.
8514		Yes	No	Black Walnut	<i>Juglans nigra</i>		18	12	16	1 Extreme Structure or Health Problems	Branches 2-3' above grade. Canopy ~50% dead.	Recommend removal due to nature and extent of defects.
8515	1579	Yes	No	Black Walnut	<i>Juglans nigra</i>		18	54	22	1 Extreme Structure or Health Problems	Codominant branching 6' above grade with included bark. Canopy ~30% dead. Moderate lean north.	Recommend removal due to nature and extent of defects.

Tag #	Old Tag #	Protected By Code	Offsite	Common Name	Botanical Name	Multi-Stems	DBH	Measured At	Measured Canopy Radius	Arborist Rating	Notes	Recommendations
8516	1581	Yes	No	Black Walnut	<i>Juglans nigra</i>	4,5,6	15	54	19	1 Extreme Structure or Health Problems	Branches at grade. Canopy ~50% dead. Broken branches throughout.	Recommend removal due to nature and extent of defects.
8517	1582	Yes	No	Black Walnut	<i>Juglans nigra</i>	6,6	12	54	14	1 Extreme Structure or Health Problems	Branches 1' above grade. Canopy ~45% dead.	Recommend removal due to nature and extent of defects.
Protected Trees**												
8511	1587	Yes	No	Interior Live Oak	<i>Quercus wislizeni</i>		31	54	32	3 Fair - Minor Problems	Moderate lean west from grade to 8' above grade. One-sided east.	Canopy raise on east side.
8513	1586	Yes	No	Interior Live Oak	<i>Quercus wislizeni</i>		23	54	17	1 Extreme Structure or Health Problems	Mechanical wound south side from grade to 7' above grade. Partially callused. Extreme decay. Fruiting bodies. Extremely sparse canopy.	Recommend removal due to nature and extent of defects.

TOTAL INVENTORIED TREES = 41 trees (932 aggregate diameter inches)
TOTAL RECOMMENDED REMOVALS = 14 trees (320 aggregate diameter inches)
Rating (0-5, where 0 is Dead) = 0=2 trees; 1=11 trees; 2=26 trees; 3=2 trees
Total Non-Protected Trees = 39 trees (878 aggregate diameter inches)
Total Protected Trees = 2 trees (54 aggregate diameter inches)

*Non-Protected Trees for identification purposes, not numbered in the field.

**Protected Trees tagged in the field.

APPENDIX 3 – GENERAL PRACTICES FOR TREE PROTECTION

Definitions

Root zone: The roots of trees grow fairly close to the surface of the soil, and spread out in a radial direction from the trunk of tree. A general rule of thumb is that they spread 2 to 3 times the radius of the canopy, or 1 to 1 ½ times the height of the tree. It is generally accepted that disturbance to root zones should be kept as far as possible from the trunk of a tree.

Inner Bark: The bark on large valley oaks and coast live oaks is quite thick, usually 1" to 2". If the bark is knocked off a tree, the inner bark, or cambial region, is exposed or removed. The cambial zone is the area of tissue responsible for adding new layers to the tree each year, so by removing it, the tree can only grow new tissue from the edges of the wound. In addition, the wood of the tree is exposed to decay fungi, so the trunk present at the time of the injury becomes susceptible to decay. Tree protection measures require that no activities occur which can knock the bark off the trees.

Methods Used in Tree Protection:

No matter how detailed Tree Protection Measures are in the initial Arborist Report, they will not accomplish their stated purpose unless they are applied to individual trees and a Project Arborist is hired to oversee the construction. The Project Arborist should have the ability to enforce the Protection Measures. The Project Arborist should be hired as soon as possible to assist in design and to become familiar with the project. He must be able to read and understand the project drawings and interpret the specifications. He should also have the ability to cooperate with the contractor, incorporating the contractor's ideas on how to accomplish the protection measures, wherever possible. It is advisable for the Project Arborist to be present at the Pre-Bid tour of the site, to answer questions the contractors may have about Tree Protection Measures. This also lets the contractors know how important tree preservation is to the developer.

Root Protection Zone (RPZ): Since in most construction projects it is not possible to protect the entire root zone of a tree, a Root Protection Zone is established for each tree to be preserved. The minimum Root Protection Zone is the area underneath the tree's canopy (out to the dripline, or edge of the canopy), plus 10'. The Project Arborist must approve work within the RPZ.

Irrigate, Fertilize, Mulch: Prior to grading on the site near any tree, the area within the Tree Protection fence should be fertilized with 4 pounds of nitrogen per 1000 square feet, and the fertilizer irrigated in. The irrigation should percolate at least 24 inches into the soil. This should be done no less than 2 weeks prior to grading or other root disturbing activities. After irrigating, cover the RPZ with at least 12" of leaf and twig mulch. Such mulch can be obtained from chipping or grinding the limbs of any trees removed on the site. Acceptable mulches can be obtained from nurseries or other commercial sources. Fibrous or shredded redwood or cedar bark mulch shall not be used anywhere on site.

Fence: Fence around the Root Protection Zone and restrict activity therein to prevent soil compaction by vehicles, foot traffic or material storage. The fenced area shall be off limits to all construction equipment, unless there is express written notification provided by the Project Arborist, and impacts are discussed and mitigated prior to work commencing.

No storage or cleaning of equipment or materials, or parking of any equipment can take place within the fenced off area, known as the RPZ.

The fence should be highly visible, and stout enough to keep vehicles and other equipment out. I recommend the fence be made of orange plastic protective fencing, kept in place by t-posts set no farther apart than 6'.

In areas of intense impact, a 6' chain link fence is preferred.

In areas with many trees, the RPZ can be fenced as one unit, rather than separately for each tree.

Where tree trunks are within 3' of the construction area, place 2" by 4" boards vertically against the tree trunks, even if fenced off. Hold the boards in place with wire. Do not nail them directly to the tree. The purpose of the boards is to protect the trunk, should any equipment stray into the RPZ.

Elevate Foliage: Where indicated, remove lower foliage from a tree to prevent limb breakage by equipment. Low foliage can usually be removed without harming the tree, unless more than 25% of the foliage is removed. Branches need to be removed at the anatomically correct location in order to prevent decay organisms from entering the trunk. For this reason, a contractor who is an ISA Certified Arborist should perform all pruning on protected trees.²

Expose and Cut Roots: Breaking roots with a backhoe, or crushing them with a grader, causes significant injury, which may subject the roots to decay. Ripping roots may cause them to splinter toward the base of the tree, creating much more injury than a clean cut would make. At any location where the root zone of a tree will be impacted by a trench or a cut (including a cut required for a fill and compaction), the roots shall be exposed with either a backhoe digging radially to the trunk, by hand digging, or by a hydraulic air spade, and then cut cleanly with a sharp instrument, such as chainsaw with a carbide chain. Once the roots are severed, the area behind the cut should be moistened and mulched. A root protection fence should also be erected to protect the remaining roots, if it is not already in place. Further grading or backhoe work required outside the established RPZ can then continue without further protection measures.

Protect Roots in Deeper Trenches: The location of utilities on the site can be very detrimental to trees. Design the project to use as few trenches as possible, and to keep them away from the major trees to be protected. Wherever possible, in areas where trenches will be very deep, consider boring under the roots of the trees, rather than digging the trench through the roots. This technique can be quite useful for utility trenches and pipelines.

Protect Roots in Small Trenches: After all construction is complete on a site, it is not unusual for the landscape contractor to come in and sever a large number of "preserved" roots during the installation of irrigation systems. The Project Arborist must therefore approve the landscape and irrigation plans. The irrigation system needs to be designed so the main lines are located outside the root zone of major trees, and the secondary lines are either laid on the surface (drip systems), or carefully dug with a hydraulic or air spade, and the flexible pipe fed underneath the major roots.

Design the irrigation system so it can slowly apply water (no more than ¼" to ½" of water per hour) over a longer period of time. This allows deep soaking of root zones. The system also needs to accommodate infrequent irrigation settings of once or twice a month, rather than several times a week.

Monitoring Tree Health During and After Construction: The Project Arborist should visit the site at least twice a month during construction to be certain the tree protection measures are being followed, to monitor the health of impacted trees, and make recommendations as to irrigation or other needs. After construction is complete, the arborist should monitor the site monthly for one year and make recommendations for care where needed.

Chemical Treatments: The owner or developer shall be responsible to contact an arborist with a pesticide applicators license to arrange for an application of a root enhancing hormone, such as Paclobutrazol, to mitigate the stress produced by the development **prior to grading**. Additionally, at the discretion of the project arborist, an insect infestation preventative for both boring insects and leaf feeding insects and/or fungal preventative for leaf surfaces may be required. Roots pruned during the course of performing a cut may be required to be treated with a biofungicide such as Bio-Tam.

² International Society of Arboriculture (ISA), maintains a program of Certifying individuals. Each Certified Arborist has a number and must maintain continuing education credits to remain Certified.