



**CITY OF GRASS VALLEY
COMMUNITY DEVELOPMENT DEPARTMENT**

**Initial Study & Mitigated Negative Declaration – Habitat for Humanity Heritage
Oaks Phase II – Zoning Map Amendment and Tentative Subdivision Map**

(19PLN-28)

SCH#2019_____

November 18, 2019

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

Background Summary:

In accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15063 (Initial Study), the City of Grass Valley has prepared this Initial Study to assess the potential environmental impacts of a proposed Zoning Map Amendment and Tentative Subdivision Map for the Habitat for Humanity Heritage Oaks Phase II residential project located on Joyce Drive. On the basis of the Initial Study, the City finds that the proposed project will not have a significant adverse effect on the environment and will not require the preparation of an Environmental Impact Report. Therefore, this Mitigated Negative Declaration has been prepared as the appropriate level of environmental review in accordance with CEQA and the CEQA Guidelines Sections 15063 and 15070 et. seq.

Public and Agency Review:

This Initial Study/Mitigated Negative Declaration will be circulated for a **30-day** public and agency review commencing **November 18, 2019**. Copies of this Initial Study and cited references may be obtained at the City of Grass Valley Community Development Department at the address noted below. Written comments on this Initial Study/Mitigated Negative Declaration may also be addressed as noted below.

Project title: Habitat for Humanity Heritage Oaks Phase II - Zoning Map Amendment and Tentative Subdivision Map (19PLN-28)

Lead agency name and address:

City of Grass Valley Community Development Department
125 E. Main Street
Grass Valley, CA 95945

Contact person, phone number, and e-mail:

Lance E. Lowe, AICP, Principal Planner
125 E. Main Street
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Project Location and Site Description:

The project is located on the southside of Joyce Drive, east of the junction of Joyce Drive and Whiting Street (APNs: 029-280-016 & 029-270-033). The ±3.74 acre project site contains one legal parcel. An adjoining parcel of ±0.23 acres is proposed to be reconfigured via Lot Line Adjustment. The reconfigured properties will conform with proposed improvements along the project site and property to the west.

The project site is located in Section 34, Township 16N, Range 8E on City of Grass Valley 7.5-minute USA quadrangle (*Exhibit A – Vicinity Map and Exhibit B – Aerial Photograph*). Approximate coordinates of the center of the site are 39° 20' 50" north and -121° 06' 32" west).

The general environmental setting of the site is indicative of the Grass Valley Foothill habitat, such as annual Grassland, weedy shrubs (Armenian Blackberry), Ponderosa Pine, Black Oak, and Foothill Riparian habitat associated with Little Wolf Creek. The site slopes are generally minor, being less than 10% with some steeper slopes primarily where grading has occurred, such as Joyce Drive fill slopes. The portion of the property that adjoins Little Wolf Creek along the southwest portion of the property will remain undeveloped and is identified as Parcel C. Parcel C encompasses ±2.29 acres and is within the FEMA Flood Zone associated with Little Wolf Creek.

Surrounding Land Uses:

The project is in an area of residential and commercial uses to the north and south respectively followed by light industrial uses to the southeast. The project area is located adjacent to and on the eastern side of SR 49. The project is bound by Joyce Drive and existing Habitat for Humanity residential to the north, SR 49 along the western side, and commercial development to the south and east (*Exhibit C – Site Photographs*).

Project Objective:

The project is a residential infill site located adjoining the 16-unit Heritage Oaks Phase I residential project that recently built-out. Compatible with the Neighborhood General -Flex (NC-Flex) Zone designations, the Habitat for Humanity Heritage Oaks Phase II project proposes 14 single family lots ranging in size from ±2,885 (Lot 3) to ±4,772 square feet (Lot 5). The residential units proposed consist of 2 and 3-bedroom single family detached units in both 1 and 2 story configurations. Home styles and square footages are proposed from single story with one car garage at ±816 square feet and two story one car garage at ±1,202 square feet. The Habitat for Humanity project is anticipated to provide housing for the City's Very Low and Low-Income group in accordance with the City's adopted 2019-2027 Adopted *Housing Element* in which 126 units are required (Table II-29).

Project sponsor's name and address:

SCO Planning, Engineering & Surveying
140 Litton Drive, Suite 240
Grass Valley, CA 95945
Martin Wood, PLS, Principal
(530) 272-5841

PROJECT DESCRIPTION:

Zoning Map Amendment – Consistent with Heritage Oaks Phase I project, the Zoning Map Amendment is proposed from the Heavy Commercial (C-3) to the Neighborhood Center Flex (NC-Flex) Zone to allow residential uses on the property. The intent of the NC-Flex zone is to allow for medium/high density housing near mixed-use centers to help support the centers and promote a walkable neighborhood (*Exhibit D – Heritage Oaks Phase II Zoning Map Amendment*).

Tentative Subdivision Map (TSM) – A Tentative Subdivision Map is proposed for the division of the ±3.74-acre parcel into 14 lots. The 14 lots range in size from ±2,885 (Lot 3) to ±4,772 (Lot 5) square feet. There is no minimum parcel size in the NC-Flex Zone; however, the lots shall be large enough to accommodate their intended use (i.e. residential use). As proposed, the home designs have been plotted so that they fit on all of the lots. Parcel sizes, parcel dimensions, areas, setbacks and building envelopes are conceptually shown on the Tentative Subdivision Map to illustrate building areas and lot coverages (**Exhibit E – Tentative Subdivision Map**).

In addition to the residential lots, several parcels-areas are designed as follows:

- Lot A – ±9,920 sq. ft. street to be dedicated to the City;
- Lot B – ±2,352 sq. ft. access lot serving Lots 13 and 14;
- Lot C – ±2.29 acres of common open space with the FEMA Flood Zone;
- Area A – 15-foot-wide sewer easement offered for dedication to the City.
- Area B – 10-foot-wide drainage easement offered for dedication to the City.

Residential Building Design – The applicant proposes two floor plans of ±816 and ±1,202 square feet in the following configurations (**Exhibit F – Home Designs/Floor Plans**):

Floor Plan	Type/Square Footage
Single-Story	Single story 816 square feet – 2 bedrooms; 1 bathroom; 1 - car garage.
Two Story Unit B	Two Story – 1,202 square feet – 3 - bedrooms; 2.5 bathrooms; 1 car garage.

The architectural detailing of the homes includes, but is not limited to:

- Slab on grade foundations;
- Front porches;
- Recessed garages;
- One car garage with windows on the garage doors;
- A combination of horizontal/vertical siding and board and batt siding;
- Gable roofs with 6/12 roof slopes

Access, Parking & Circulation – Primary ingress/egress is proposed via Joyce Drive, a city-maintained roadway constructed to city residential standards on the north side of the street. Joyce Drive was constructed to serve the Heritage Oaks Phase I project. Joyce Drive consists of two 10-foot travel lanes with 9-foot parking and sidewalk on the north side of the street within a 42-foot right-of-way. The southern side of the street will be constructed with curb and gutter with an earthen shoulder to serve the Heritage Oaks Phase II project (See Cross Section A – Existing Joyce Drive Residential Street).

Internal circulation consists of an unnamed roadway at the south end of the development identified as Lot A. Lot A consists of ±9,920 square feet of roadway and utilities to be dedicated to the City of Grass Valley. The roadway consists of two 10-foot travel lanes with 9-foot parking and sidewalk on the east side of the street (See Cross Section D – Residential Street).

Cross Section E – Residential Alley Road serves Lots 13 and 14 consists of two 9-foot travel lanes with a 2-foot valley gutter within a 20-foot right-of-way.

Except for Joyce Drive and Lot A serving Lots 1 – 12, the roads within the Heritage Oaks Phase II development are private roads and will be maintained by the Heritage Oaks Phase II Home Owners Association (HOA) for the project.

All residential driveways will be a minimum of 20 foot in depth to accommodate off-street parking. Street parking will be utilized for guests on the north side of the street. Additionally, a 13-stall $\pm 4,165$ sq. ft. parking lot is proposed at the west end of the site for guest and overflow parking. At the end of the parking lot a recreational basketball hoop is proposed. The parking lot will service both Heritage Oaks Phase I & II developments. The parking is located within a common areas and will be maintained by the HOA for both Phase I and II.

Landscaping – Typical front yard landscape plans will be prepared for the project. The landscaping will consist of ground cover, accent shrubs, flower shrubs and a small flowering tree in the front yard. Rear yard landscaping shall be the responsibility of the home purchaser. Landscaping shall also be installed in the common areas and surrounding the parking lot. The landscaping shall be in accordance with the City and State Model Water Efficiency Landscape requirements.

Lighting – Lighting consists of existing street lighting installed with Heritage Oaks Phase I as well as individual lighting for each of the respective homes. As required by the City's Development Code, the lighting will contain shields to direct lighting downward.

Fencing – 6-foot-high wood fencing will be constructed between the individual homes along the property lines. Fencing shall be the responsibility of the respective homeowners. A split rail fence will be installed around the perimeter of the open space flood zone area.

Sound walls – A sound wall is proposed along the west and north property lines of Lot 14. A detail of the sound wall is provided in the *Environmental Noise Assessment prepared by Bollard Acoustical Consultants, Inc., dated May 31, 2019*.

Tree Removal – According to the *Biological Resources Inventory prepared by Greg Matuzak, Biological Resources Consultant dated June 2019*, the project area does not contain any protected oak or other trees to be removed that would be subject to City of Grass Valley policies.

Grading/Retaining Walls – The site is relatively level with an elevation of 2,395 (MSL) at Joyce Drive and along Lot 14. The elevation at the center of the site is 2,388 or 7 feet below Joyce Drive. The elevation at southern end of the site is 2,397 at Lot 6 or 2 feet higher than Joyce Drive. The site slopes are generally minor, being less than 10% with some steeper slopes primarily where grading has occurred, such as Joyce Drive fill slopes. Some fill has been placed upon the existing site in the past.

The project will include the construction of roadways, sidewalks, 14 single family building pads and driveways. The project would require cut of ± 447 cubic yards and fill of $\pm 3,416$ cubic yards of fill. Considering the final topography, all the lots will be pad graded with slab on grade foundations.

No retaining walls are proposed with the Heritage Oaks Phase II development.

Drainage – On-site drainage will be collected in a new drainage system containing drainage inlets, storm drain, manholes, etc. Runoff from the proposed residences will exit roof downspouts into small infiltration trenches prior to discharge to the existing natural drainage course. Runoff from pavement areas is conveyed along curb and gutter to one of two storm drain inlets with deepened sumps for retention and infiltration. Storm water is further conveyed through new storm drain and ultimately will enter a “Stormceptor” manhole from removal of potential pollutants prior to discharge into new Bio-Swales south of the homes, then conveyed to a new retention pond allowing infiltration and removal of potential pollutants prior to discharge to the adjacent natural drainage course.

Utilities – Water Supply: The subject property will be connected to City of Grass Valley water lines along Joyce Drive that will be extended to serve the site.

Sanitary Sewer: The nearest sanitary sewer connection is located on Joyce Drive, which will be extended to serve the site.

Dry Utilities: The project will connect to dry utilities (i.e., natural gas, electrical supply, telephone, cable) that are located along Joyce Drive.

General Plan Land Use Designation

The project area has a General Plan land use designation of Commercial, according to the *City of Grass Valley 2020 General Plan*. The Commercial designation is a broad category intended to encompass all types of retail commercial and commercial service establishments in any one of a variety of locations.

The Heritage Oaks Phase II project at ±3.74 acres and 14 single family dwellings is at a density of ±3.74 units per acre.

Zoning Designation

The property is within the Heavy Commercial (C-3) Zone. The Heavy Commercial (C-3) Zone is proposed to be amended to the Neighborhood Flex (NC-Flex) Zone designation for the entirety of the 3.74-acre site. The NC-Flex Zone permits single family, multi-family Row-housing, multiple-family duplex, triplex and fourplex housing.

The project design shall be in accordance with the NC-Flex zone standards regarding height, setbacks, parking standards, etc.

Offsite Improvements

No offsite improvements are proposed or anticipated as part of the proposed Heritage Oaks Phase II project.

Exhibit A - Vicinity Map

Heritage Oaks Phase II

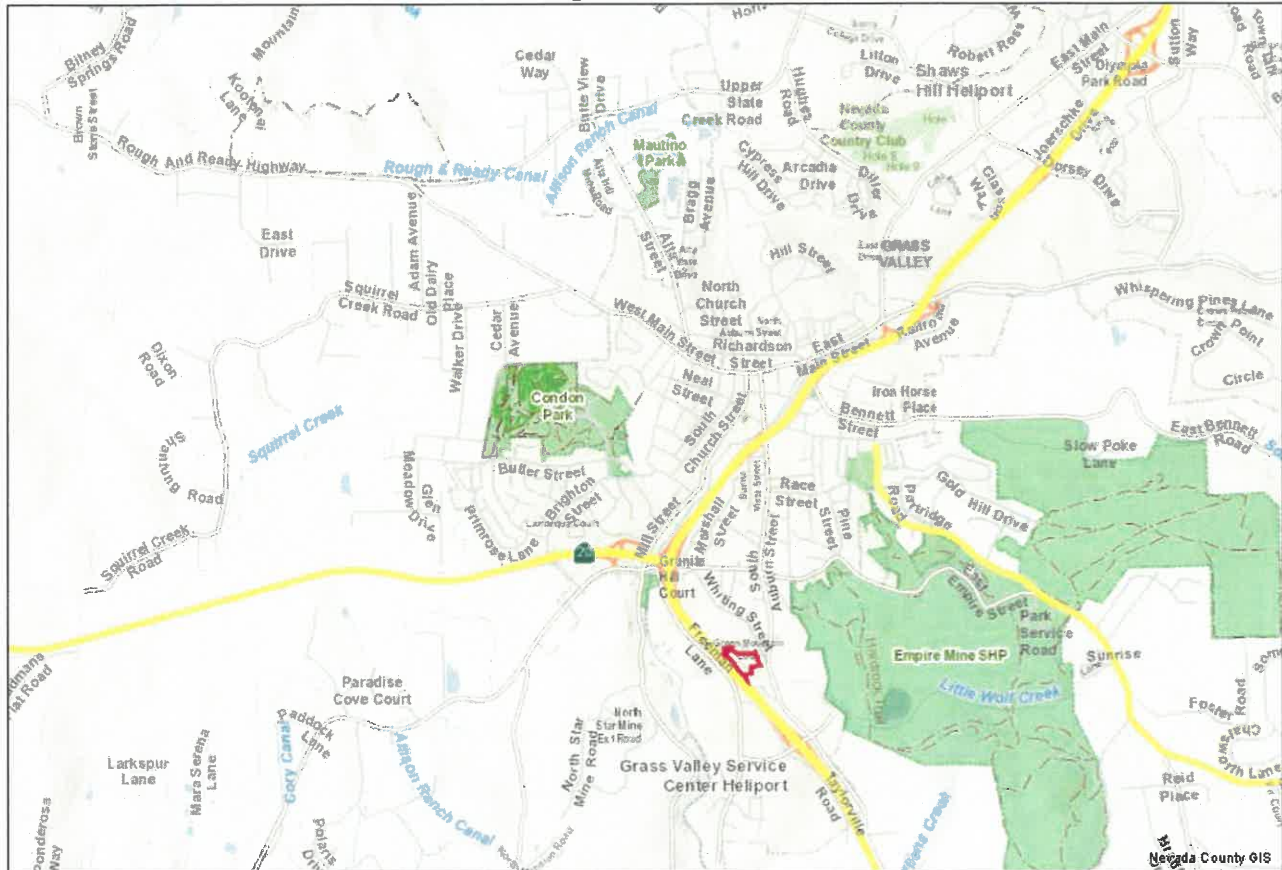


Exhibit B - Aerial Photograph

Heritage Oaks Phase II



Exhibit C - Site Photographs

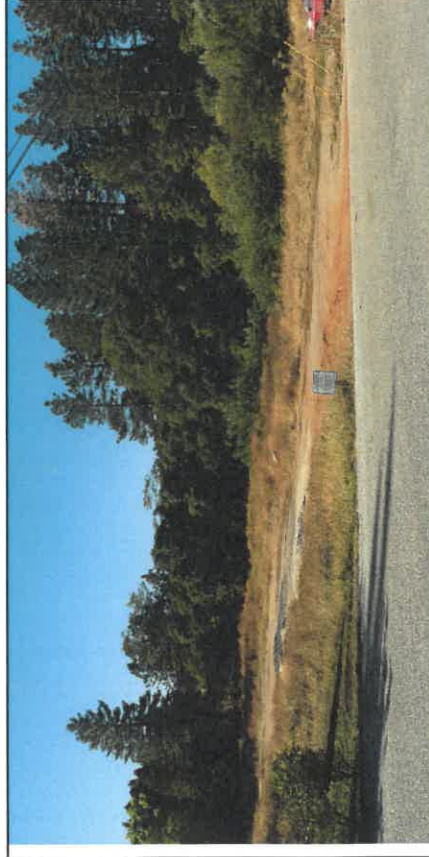
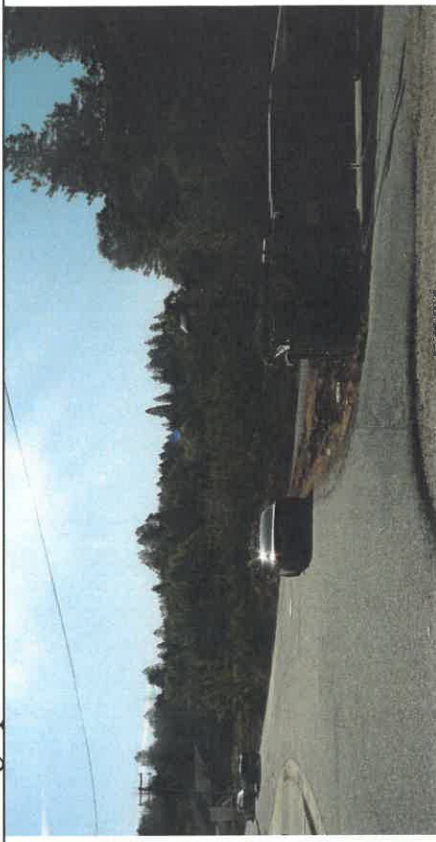


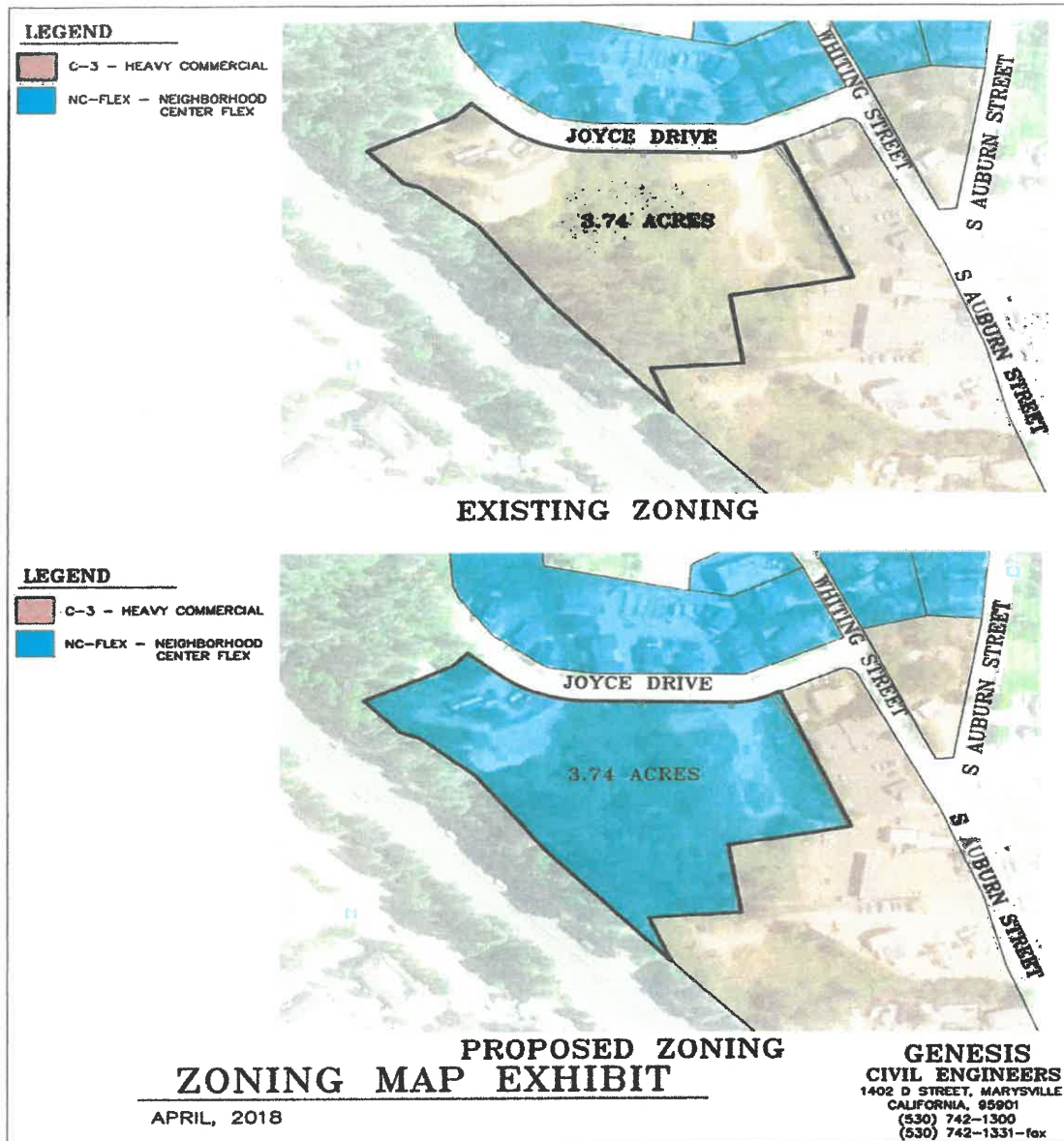
Exhibit C - Site Photographs



Habitat for Humanity Heritage Oaks Phase II
Initial Study/Mitigated Negative Declaration

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Exhibit D - Heritage Oaks Phase II Zoning Map Amendment









Regulatory Setting and Required Agency Approvals

The following City of Grass Valley, Responsible and/or Trustee Agency permits are required prior to construction of the Heritage Oaks Phase II project:

- City of Grass Valley Department of Public Works – Improvement Plan, Grading Plan, Encroachment Permit and Tree Permit approvals.
- City of Grass Valley Community Development Department – Site Plan and Building Plan Approvals and Conditions of Approval/Mitigation Measure compliance verification.
- City of Grass Valley Building Department – Building, Plumbing, Mechanical, and Electrical Permits in accordance with the California Codes.
- City of Grass Valley Fire Department – Site Plan, Improvement Plan and Building Plan Approvals.
- A Storm Water Pollution Prevention Plan (SWPPP) shall be approved by the Regional Water Quality Control Board in accordance with the Clean Water Act.
- A Dust Mitigation Plan shall be approved by the Northern Sierra Air Quality Management District.
- Timber Harvest Permit Exemption (for less than 3-acre conversion) from the California Department of Forestry and Fire Protection, if applicable.
- State Department of Fish and Wildlife (1600 permits) – A Stream Alternation Agreement is required for encroachment into the bed and bank or existing blackberry bushes associated with the intermittent drainage area or within the bed and bank of the perennial spring fed stream, if disturbed.

Evaluation of Environmental Impacts:

- 1) A brief explanation is required for all answers except “NO Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to a project like the one involved (e.g. the project falls outside a fault rupture zone). A “NO Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) **“Potentially Significant Impact”** is appropriate if there is substantial evidence that an effect is significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required.
- 4) **“Potentially Significant Unless Mitigation Incorporated”** applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
- 5) **“Less-Than-significant Impact:”** Any impact that is expected to occur with implementation of the project, but to a less than significant level because it would not violate existing standards.
- 6) **“No Impact:”** The project would not have an impact to the environment.
- 7) Earlier analyses may be used where, pursuant to Tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration.
- 8) Lead agencies are encouraged to incorporate into the checklist reference to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gases | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydro/Water Quality |
| <input type="checkbox"/> Land Use/Planning Housing | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> None |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

DETERMINATION: (To be completed by the Lead Agency) On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Lance E. Lowe, AICP, Principal Planner

Date 11/15/19

EVALUATION OF ENVIRONMENTAL IMPACTS:

I. AESTHETICS –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area (*Federal Highway Administration, 1983*). The visual quality component can best be described as the overall impression that an individual viewer retains from residing in, driving through, walking through, or flying over an area. Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, the number of views seen, the distance of the viewers, and the viewing duration. Viewer sensitivity relates to the extent of the public's concern for a particular view shed (*U.S. Bureau of Land Management, 1980*).

The *City of Grass Valley 2020 General Plan* notes that the City does not contain any designed scenic highways or vistas, but generally acknowledges the City and its surroundings as having a wide range of landscapes, scenic vistas and visual resources.

The project site has ±660 feet of frontage along Highway 49/20 that is partially shielded by trees and vegetation. The views from Joyce Drive and Whitening Street are consistent with residential and commercial uses.

No scenic resources, including, but not limited to: trees, rock outcroppings, and historic buildings are located on the subject ±3.74-acre project site.

Sources of existing light in the project area are streetlights, residential lighting and parking lot lighting. Other sources of light and glare include vehicles traveling along Joyce Drive, Whiting and S Auburn Street.

IMPACTS

- a)&b) From its undeveloped state, the development of 14 single family dwellings and related improvements would alter the views from Joyce Drive to the west and Highway 49/20 to the east.

A project would normally have a substantial adverse aesthetic effect through removal of natural features or addition of man-made features or structures which degrades the visual intactness and unity of the scenic vista or highway.

Identified as common area Lot C between Highway 49/20 there is ± 2.29 acres of wooded and vegetated property that is within the FEMA Flood Zone. This area will remain undisturbed and provides a buffer between Highway 49/20 and the developed ± 1.45 acres of the ± 3.74 -acre site. Through the project will still be visible from the highway, the existing trees and vegetation, that will remain, shield the majority of views for both motorists and future residents of the site.

Considering scenic vistas or scenic highways are not within the project vicinity, the project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. These potential impacts are less than significant.

- c) Generally, new development, if not carefully designed, can result in adverse impacts on sites open to public view. This property has been designated for urban development in the City's 2020 General Plan. Additionally, policies of the City's General Plan Community Design Element (Chapter 10 of the 2020 General Plan) aim to preserve the desirable physical and design features in Grass Valley and carry them over into new development so that old and new development appear compatible. The City's Community Design element states that new infill development within established areas will be consistent in terms of scale, design, and materials.

The project area has a residential/commercial and light industrial appearance with low density residential surrounding the project site to the north, commercial to the south and industrial to the southwest. The architectural types/styles of homes are the same as has been constructed in Heritage Oaks Phase I. These home designs have generally been well received from the public from an architectural perspective. As such, the proposed infill residential project is not anticipated to substantially degrade the existing visual character or quality of the site and its surroundings.

According to the preliminary landscape plans, Habitat for Humanity is anticipating on replanting a minimum of one tree per lot as well as providing landscaping along the street frontages thereby further reducing visual impacts. The additional trees and landscaping will soften the appearance of the residential development on neighboring properties, passing motorists along Highway 49/20 and pedestrians alike. These impacts are considered less than significant.

- d) Existing sources of day and nighttime light within and around Grass Valley include those common to developed areas. Existing sources include motor vehicle lights along Joyce Drive, Highway 49/20, street lights, parking lot lighting, building lighting and commercial signage in the project vicinity.

Lights to be installed on the Heritage Oaks Phase II project site includes street lights, and home entryway lights and patio lights, which will contain down shields. The residential lights must be directed so as not to spill light onto neighboring properties. Accordingly, light spillover is not anticipated to cause a significant impact to neighboring properties. Additionally, vehicle lights traveling on Joyce Drive and Highway 49 northbound will create additional night time lighting. However, these potential impacts are intermittent, short term and thus are considered less than significant.

II. AGRICULTURE RESOURCES & FOREST RESOURCES–	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The proposed project is situated in an area that has been designated and zoned for Commercial uses by the *City of Grass Valley 2020 General Plan and Development Code*. Except for the ±3.74-acre project site, the project area has been largely built out in accordance with the City's residential land use designations.

"Agricultural Land" is defined as prime farmland, farmland of statewide importance, or unique farmland, as defined by the *United States Department of Agriculture land inventory* and monitoring criteria, as modified for California.

No current agricultural operations or forestry lands exist on the project site as defined according to the U.S. Department of Agriculture. Although, the property contains trees, the project site does not fall under the definition of forest lands as defined by *Public Resources Code Section 12220(g)*.

IMPACTS

- a)&b) The site is an infill site designated as "*Urban and Built-up Land*" as defined according to the *U.S. Department of Agriculture*. As defined, "*Urban and Built-up Land* is used for residential, industrial, commercial, construction, institutional, and public administrative purposes. Highways and other transportation facilities are also mapped as a part of Urban and Built-up Land if they are a part of the surrounding urban areas."

The California Resources Agency farmland mapping program does not identify the project site or vicinity as having Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project site has been zoned for commercial uses surrounded by similar developed commercial and residential uses. Considering no farmland, as defined, exists within the project area, the proposed project will not involve conversion of farmland or zoning for agricultural use, including any farmlands under Williamson Act Contract. Therefore, no impact will occur.

- c)-e) As noted in the project setting above, the project will not conflict with existing zoning or cause the 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)*).

The project will not result in the loss of forest land or conversion of forest land to non-forest uses as defined. Standard conditions of approval require the applicant to obtain an exemption (for less than 3-acre conversion) of a Timber Harvest Permit from the *California Department of Forestry and Fire Protection*, if applicable.

Additionally, the applicant will be required to obtain a Tree Removal Permit from the City in accordance with Chapter 12.36 of the City's Municipal Code should any trees be removed. No impact will occur.

III. AIR QUALITY –

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SETTING

The project is located within the Northern Sierra Air Quality Management District's (NSAQMD) jurisdiction. The overall air quality in Nevada County is good but two known air quality problems exist, Ozone and Suspended Particulate Matter (PM-10). Nevada County is a "non-attainment" for both pollutants. PM-10 in Grass Valley meets federal ambient ozone standards but exceeds the more stringent State standards in the winter, primarily due to smoke created from wood stoves and fireplaces. Violations in the summer months have been noted during forest fires or periods of open burning. PM-10 is usually associated with dust generated during construction. Western Nevada County is a non-attainment area for the federal 8-hour ozone standard and the entire county is non-attainment for the state one-hour ozone standard.

The NSAQMD has adopted standard regulations and conditions of approval for projects that exceed certain air quality threshold levels to address and mitigate both short-and long-term emissions. The Northern Sierra Air Quality Management District (NSAQMD) has established the below thresholds of significance for PM-10 and the precursors to ozone, which are reactive organic gases (ROG) and nitrogen oxides (NOx). The NSAQMD has developed a tiered approach to significance levels: A project with emissions meeting Level A thresholds will require the most basic mitigations; projects with projected emissions in the level B range will require more extensive mitigations; and those projects which exceed Level C thresholds, will require an Environmental

Impact Report to be prepared, which may result in even more extensive mitigations.

IMPACTS

- a)&b) In consultation with NSAQMD, the project is required to comply with standard air quality measures for construction as noted below. These measures are consistent with the Northern Sierra Air Quality Management's Air Quality Plan for the district. From an operational perspective, the residential project is anticipated to generate negligible impacts as outlined in **Table 1** – Project Construction and Operational Emissions Estimates. The project does not conflict with or obstruct implementation of an air quality plan prepared by NSAQMD. These potential impacts are less than significant.

Adherence with standard Nevada Sierra Air Quality Management (NSAQMD) standards will assure that construction impacts will remain less than significant. Therefore, the project will not violate an air quality standard or contribute substantially to an existing or projected air quality violation. These potential impacts are less than significant.

- c) Construction-related air pollutant emissions would originate from mobile and stationary sources including but not limited to: construction equipment exhaust, dust resulting from earth-disturbance, painting, and asphalt and/or concrete paving and striping. Construction-related emissions vary substantially depending on the level of construction activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind, precipitation conditions, and soil moisture content.

In its developed condition as a residential use, air pollutant emissions would be generated by, but not limited to: gas appliances, heating/cooling facilities, gas-powered landscaping equipment, and vehicle exhaust.

In review of the project, the *California Emission Estimator Model (CalEEMod) Version 2016.3.2*, emissions modeling program was used to estimate air pollutant emissions associated with the project. According to *CalEEMod* modeling results, air quality impacts for both construction and operational (occupancy) phases would be less than significant for all regulated air pollutants. Except for ROG/VOC and NO_x, which modeled higher than normal for small residential subdivisions as proposed, the daily emissions are below the Level A thresholds. For VOC/ROG and NO_x emissions, the project would require Level B thresholds. This is largely due to architectural coating and paints and a longer construction duration associated with Habitat for Humanity construction model. To mitigate for ROG/VOC emissions, the project would use Low VOC paintings and coatings. The remaining emissions are from off-road construction equipment as noted in the following table:

Table 1
Project Construction and Operational Emissions Estimates

	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)	CO (lbs/day)
Project Construction Impacts	87.84	33.49	5.09	22.89
Project Operational Impacts	0.84	1.92	0.6278	4.74
Level A Thresholds				
NSAQMD- Significance Thresholds	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)	N/A
	<24 lbs/day	<24lbs/day	<79lbs/day	
Level B Thresholds				
Maximum Project Emissions	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)	N/A
	24-136 lbs/day	24/136 lbs/day	79-136 lbs/day	
Level C Thresholds				
Maximum Project Emissions	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)	N/A
	>136 lbs/day	>136 lbs/day	>136 lbs/day	

Based on *CalEEMod* modeling outputs for the proposed project, long-term operational emissions would not exceed NSAQMD significance thresholds.

Although construction and operation of the proposed project would not exceed NSAQMD significance thresholds, NSAQMD's standard conditions of approval for projects with Level A and Level B (ROG/VOC) thresholds would be imposed thereby minimizing project emissions to an acceptable levels. Such conditions are considered appropriate to apply to the proposed project to promote maintenance of air quality in the region. The standard conditions of approval recommended are consistent with goals of State Implementation Plans for the District.

Since operational emissions would be in accordance with accepted thresholds and construction-related emissions would be short-term, with implementation of NSAQMD's recommended conditions of approval, the proposed project's emissions are not anticipated to violate air quality standards or contribute substantially to an existing or projected air quality violation. Therefore, impacts are anticipated to remain less than significant with implementation of standard NSAQMD's conditions of approval for Level A & Level B (ROG/VOC) projects as noted below.

Lastly, according to the City's 2020 General Plan EIR, the site is not in an area of naturally occurring asbestos (NOA) as substantiated by *Figure 3.1-1 of the General Plan EIR*. These potential impacts are less than significant.

- d) Emissions associated with the proposed project would be greatest during construction activities, specifically when diesel-powered construction vehicles are used for earth-moving operations. The nearest sensitive receptor (i.e. residential use) is located approximately ±100 feet from the proposed residential lots, where grading will occur. Although in close proximity to sensitive receptors, the emissions associated with the project would be short-term and are not anticipated to result in a substantial elevation of pollutant concentrations in the area.

The proposed project's operational emissions would be typical of those produced by residential development. Operational emissions would consist of PM₁₀, CO, and ozone precursors (ROG and NO_x). These pollutants would be generated by gas-fired water heaters, as well as from engine emissions associated with vehicle trips to/from the project and gasoline-powered landscape maintenance devices. Based upon the *CalEEMod* analysis, operational emissions are not anticipated to exceed Level A thresholds. These potential impacts are considered less than significant.

- e) The project is not anticipated to produce any objectionable odors in its finished condition that would affect a substantial number of people. Construction activities associated with the proposed development, such as paving and painting, are likely to temporarily generate objectionable odors. However, odor-generating construction activities would be temporary, and are only likely to be detected by a small number of residents nearest the project site. Therefore, impacts from temporary project-related odors would be less than significant.

The following are standard NSAQMD air quality conditions that will be imposed on the project via conditions of approval:

AQ 1 – Mitigation Measures:

With implementation of the following standard conditions of approval, adverse impacts to air quality resulting from the proposed project would remain less than significant.

1. The project shall be required to use Low VOC paintings and coatings.
2. The applicant shall submit a Dust Mitigation Plan for review and approval by the Northern Sierra Air Quality Management District and City Engineer. Dust mitigation measures shall be implemented in accordance with the approved Dust Mitigation Plan. The dust mitigation plan shall include the following:
 - a. The applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.
 - b. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.
 - c. All land clearing, grading, earth moving, or excavation activities on the project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.
 - d. All inactive portions of the development site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, the applicant shall be responsible for applying City approved non-toxic soil stabilizers (according to manufactures specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance.
 - e. All areas with vehicle traffic shall be watered or have dust palliative applied as necessary for regular stabilization of dust emissions.
 - f. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.

- g. Paved streets adjacent to the project shall be swept at the end of each day, or as required to remove excessive accumulations of silt and/or mud which may have resulted from activities at the project site.
- h. No burning of waste material or vegetation shall take place on-site. Alternatives to burning include chipping, mulching or converting to biomass.

IV. BIOLOGICAL RESOURCES –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The project is an infill site with low density residential and commercial land uses within the immediate area.

The project area is mostly disturbed in the central, eastern and northwestern sections where development is proposed. A majority of the project area proposed for development appears to be a mix of native soils and fill material, most likely brought from off-site.

The project area is located approximately 2,400 feet above Mean Sea Level. The project area is relatively flat in the central and eastern sections with gentle to medium slopes towards the western portions of the Project area related to the Little Wolf Creek drainage and associated flood plain located in the area. Little Wolf Creek is a seasonal creek within the project area. In general, the project area slopes gently towards the western area towards Little Wolf Creek. There is a 40-foot-wide drainage and access easement along Little Wolf Creek through the project area. Along the western edge of the project area, where Little Wolf Creek runs from a southeast towards a northwest direction, it crosses under SR 49 through a large culvert. In addition, a small, intermittent drainage enters the project area through a culvert under Joyce Drive adjacent to the paved entrance to the northwestern area of the project area. The small, intermittent drainage contains mostly thick blackberry bushes and some large willow trees before entering Little Wolf Creek. The small intermittent drainage is not identified as a blue line stream feature on the USGS topographic mapping covering the project area and it is not identified within National Wetland Inventory (NWI) mapping covering the project area. However, Habitat for Humanity proposes a 10-foot easement along the intermittent drainage which will be offered for dedication to the City of Grass Valley. Little Wolf Creek is lined with riparian vegetation and several large willow, alder, and cottonwood trees.

IMPACTS

- a) A Biological Resources Inventory was prepared by *Greg Matuzak, Biological Consultant dated June 2019*. The purpose of the Biological Resources Inventory is to identify the location and extent of sensitive biological resources within the project area, including special-status plant and wildlife species, and the presence of drainage/stream/wetland features that could potentially meet the *U.S. Army Corps of Engineers* criteria as “Waters of the United States,” including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). Little Wolf Creek and the small, intermittent drainage entering the northwestern section of the project area would be subject to such regulations. In addition, the Biological Resources Inventory included an assessment of streams within the Project area that could be under the jurisdiction of *California Department of Fish and Wildlife Code 1600 et. seq.*

As inventoried, the project area is covered mostly by the following habitat types: Ponderosa Pine, Annual Grassland, and Foothill riparian habitats. Foothill Riparian habitats are associated with Little Wolf Creek as well as the intermittent drainage along the southern edge of the project area, and small, intermittent drainage that flows along a fenced, narrow channel within the Habitat for Humanity Heritage Oaks Phase I along the northern side of Joyce Drive before crossing Joyce Drive and entering the project area within the northwestern section of the project area.

Considering the developed and disturbed site conditions of the project area, including the lack of soil and habitat types for special-status plant species previously recorded within 3 miles of the project area, the potential for any listed or other sensitive plant species to occur within the project area is considered very low to nil. Marginal suitable habitat for the special-status plant species dubious pea occur within the forested areas within the eastern section of the project area; however, this species was not identified during May 2019 survey and the entity of the western section of the project area will be avoided given the presence of Little Wolf Creek and its associated floodplain in that area. Known occurrences of special-status wildlife species have been documented within 3 miles of the project area; however, the project area does not contain suitable habitat for such species. No special-status wildlife species were documented within the project area during April 2018 and May 2019 site surveys.

Special status species were considered in the Biological Resources Inventory based on a current review of the *California Natural Diversity Data Base (CNDDDB)* and database information provided by the *United State Fish and Wildlife Service (USFWS)* for the project area. The project area does not contain any Designated Critical Habitat (DCH) for any federally listed species projected by the USFWS. The database searches did reveal ten species: *California black rail*, *Scadden Flat checkerbloom*, *Stebbins' morning glory*, *Pine Hill flannel bush*, *dubious pea*, *finger rush*, *chaparral dredge*, *brownish beaked-rush*, *coast horned lizard*, and the *Townsend's big-eared bat* that have been previously identified within 3 miles of the Project area. None of these species were observed during field surveys. In addition, western pond turtle, foothill yellow-legged frog, and California reg-legged frog are also discussed below given the presence of Little Wolf Creek and a small intermittent drainage within the area. These impacts are less than significant.

- b) Little Wolf Creek and the small, intermittent drainage within the Project area contain associated Foothill Riparian habitats. This habitat type within the Project area is dominated by white alders (*Alnus rhombifolia*) and willows (*Salix laevigata* and *S. lasiolepis*) in addition to Himalayan blackberry (*Rubus armeniacus*), Baltic rush (*Juncus balticus*), and iris-leaved rush (*Juncus xiphioides*). This habitat is located along the western edge of the Project area where Little Wolf Creek flows and along the edges of the small, intermittent drainage that enters the northwestern portion of the Project area from the north. The southern Project area border also contains a small, intermittent drainage that connects to Little Wolf Creek and it contains a narrow band of riparian vegetation, including a large willow tree and a dense cluster of Himalayan blackberry bushes along both sites of the drainage.

In addition, seasonal wetlands associated with the Little Work Creek floodplain, located in the western section of the Project area, contains a diverse palette of native herbaceous wetland species, such as clustered field sedge (*Carex praegracilis*), umbrella sedge (*Cyperus eragrostis*), Baltic rush (*Juncus balticus*), and iris-leaved rush (*Juncus xiphioides*). The obligated wetland species, cattail (*Typha* sp.) is also present in the topographic low areas within the floodplain as well as adjacent to Little Wolf Creek. A setback from the Little Wolf Creek floodplain is proposed; therefore, the riparian and wetland habitats identified within the western section of the Project area would be located within the setback area and would not be impacted by the proposed Project.

The project area is located within a developed and disturbed area of the City of Grass Valley and is adjacent to/nestled within a largely developed area south of downtown Grass Valley. The project area is located adjacent to and on the eastern site of SR 49. The project is bound by Joyce Drive and existing Habitat for Humanity residential along the norther frontage area, SR 49 along the western area, and commercial development to the south and east. Therefore, any development within the ±3.74-acre project area would have an overall very low potential to impact sensitive wildlife and plant resources given the low likelihood of such sensitive species to occur within the project area.

As noted, the project area does not contain suitable habitat for any state or federally listed endangered or threatened species. However, the project area would be subject to the City of Grass Valley Tree Ordinance and a tree permit would be required for removal of any native tree that is 10 inches or greater DBH. Several native willow trees area located within the project area and the large trees associated with Little Wolf Creek would be subject to a tree permit by the City of Grass Valley if they are to be removed given, they are each 10 inches or greater DBH. These impacts are considered less than significant.

- c) Little Wolf Creek is a tributary to Wolf Creek on the western side of SR 49. Wolf Creek connects with the Bear River downstream, which connects with the Feather River, San Francisco Bay, and the Pacific Ocean downstream. Therefore, Little Wolf Creek would be regulated under the Clean Water Act (CWA) (federal regulation protecting streams and wetlands) and by the State of California (protecting waters of the State of California floodplains, and riparian habitat). It is assumed that Little Wolf Creek is a seasonal creek given its small width and low flow level during the field survey conducted during the winter. If direct dredge or fill impacts were proposed within the high-water mark (OHWM) of Little Wolf Creek or the small, intermittent drainage within the project area, state and federal permits would be required for such activities. Given that Little Wolf Creek is a seasonal stream, it would also be subject to Grass Valley Development Code, which requires a Resource Management Plan for encroachment into the 30-foot stream setback and shall include measures which will minimize impact to the watercourse and enhance runoff filtration. Therefore, encroachment into the 30-foot stream setback would require the development of a Resource Management Plan in order to encroach within the stream setback.

It is assumed that the drainage running along the southern border of the project area boundary (from adjacent runoff from the south and east) is not subject to local, state, and federal regulations given it drains the adjacent commercial development (runoff) and does not have a direct connection to Little Wolf Creek through a defined bed and bank channel with an ordinary high water mark. However, the small drainage entering the project area through a culvert under Joyce Drive would be regulated by state and federal regulations. Given neither of the two drainages area included as a blue line stream on any USGS Tomographic Map or Parcel Map, the City of Grass Valley does not require the development of a Resource Management Plan for any development within the 30-foot stream setback for those drainages.

The project area does not contain suitable aquatic habitat or upland areas immediately associated with aquatic habitat. Therefore, the project area does not provide habitat for sensitive

amphibians or other sensitive aquatic species. As a result, no impact would be expected to *California red-legged frog, foothill yellow-legged frog, western pond turtle, or CA black rail* from developing the project area. In addition, Little Wolf Creek and its flood plain will be avoided so the proposed project will have no impact on Little Wolf Creek and its associated riparian habitat and floodplain.

The eastern edge of the project area contains areas of thick blackberry bushes; however, no drainage channel or a predominance of wetland plant species were found along the eastern edge of the project area. A culvert located within the southeastern section of the project area adjacent to a small path that enters the project area appears to drain runoff from the adjacent commercial developments to the south and east. A small, intermittent drainage runs along the southern edge of the project area boundary, which has a predominance of blackberry bushes and a large willow tree. Given the drainage along the southern project area boundary connects with Little Wolf Creek and its associated floodplain to the west, it would most likely be subject to local, state, and federal permitting if any dredge or fill material was placed within it during site development.

- d) Known migratory deer ranges outlined in the Nevada County General Plan were reviewed for deer migration corridors, critical range, and critical fawning areas. The Project area is not located in any known major deer corridors, known deer holding areas, or critical deer fawning areas. Per the migratory *Deer Ranges Nevada County General Plan map*, the Project area is located in an area of potential Resident Deer Herd (includes some areas of migratory deer winter range). This field survey did not record any observations of deer or deer trails while walking the Project area. The Project area does not contain any known major deer migration corridors, known deer holding areas, nor critical deer fawning areas. This impact is less than significant.
- e) The Biological Resources Inventory also evaluated the City of Grass Valley General Plan and Development Code requirements for any parcels subject to land use changes. Grass Valley Development Code requires a Resource Management Plan for encroachment into a 30-foot stream setback to identify potential impacts to a stream due to any development within the setback. The Resource Management Plan identifies minimization and mitigation measures to implement to limit the potential impact to the stream in the case that development is approved within the 30-foot stream setback. This includes Best Management Practices (BMPs), including erosion control and sedimentation measures to avoid water quality impacts. The proposed project will be located more than 30 feet from Little Wolf Creek; however, Lot 12 encroaches to within 10 feet of the edge of a drainage area. Therefore, the Biological Resources Inventory also includes a Resource Management Plan to protect the small, intermittent drainage in the rear of Lot 12 due to the requested encroachment to develop up to 10 feet from the edge of the drainage way.

Resource Management Plan for Encroachment Into 30-foot Setback for Drainages – Due to the encroachment within the 30-foot setback of the drainage way in the rear of Lot 12, the following Biological Mitigation Measures are proposed to reduce potential impacts:

BIO 1 Mitigation Measures:

The following Best Management Practices (BMPs) shall be implemented as part of a requested encroachment to within 10 feet of proposed 10-foot drainage easement area adjacent to Lot 12. With the implementation of the following Best Management Practices, the development of Lot 12 within 10 feet of the edge of the intermittent drainage will have no impact on the drainage area from erosion and sedimentation.

These measures are intended for inclusion into the project within the 30-foot drainage setback during and after construction to minimize direct and indirect impacts to water quality during and following construction. This will be accomplished by implementing the following during and following construction:

- Limit construction to periods of extended dry weather and the dry summer season;
- Establishing the area around the active drainage channel as Environmentally Sensitive Area (ESA) where those areas will not be impacted by construction or thereafter;
- No fill or dredge material will enter or be removed from the drainage channel during construction and thereafter;
- Placement of soil erosion control devices (such as wattles, etc.) between the drainage and Lot 12 site development to limit potential runoff and sedimentation into the drainage;
- Use appropriate machinery and equipment to limit disturbance in this area;
- No dewatering of the drainage will occur during construction or thereafter; and,
- Implement Best Management Practices (BMPs) during and following construction.

BIO 2 Mitigation Measures:

Implementation of Best Management Practices During Construction – To protect the small, intermittent drainage, 30-foot drainage setback areas, water quality, and downstream water resources, the contractor shall implement standard Best Management Practices (BMPs) during and after construction. These measures should include, but are not limited to:

- Minimize the number and size of work areas for equipment and spoil storage sites in the vicinity of the stream. Place staging areas and other work areas outside of the 30-foot drainage setback.
- The contractor shall exercise reasonable precaution to protect this drainage and adjacent 30-foot drainage setback, including potential wetlands, from pollution with fuels, oils, and other harmful materials. Construction by products and pollutants such as oil, cement, and wash water shall be prevented from discharging into or near these resources and shall be collected for removal from the site. All construction debris and associated materials and litter shall be removed from the work site immediately upon completion.
- No equipment for vehicle maintenance or refueling shall occur within the 30-foot drainage setback. The contractor shall immediately contain and clean up any petroleum or other chemical spills with absorbent materials such as sawdust or kitty litter. For other hazardous materials, follow the cleanup instruction on the label.

BIO 3 Mitigation Measures:

Post Construction Erosion Control – Exposed bare soil along the drainage embankment, including the 30-foot drainage setback, should be protected against loss from erosion by the seeding of an erosion control mixture and restored with native grasses and mulching. Non-native species that are known to invade wild lands, such as orchard grass, velvet grass, rose clover, winter and spring vetch, and wild oaks should not be used as they replace native species.

BIO 4 Mitigation Measures:

Provide Copies of Mitigation Measures to Contractors – To ensure the proper and timely implementation of all mitigation measures contained in the Management Plan, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and permit requirements to the contractors prior to grading and construction within the 30-foot drainage setback. All contractors shall be completely familiar with the mitigation measures contained above and with the terms and conditions of all permits.

The above mitigation measures will reduce potential impacts to the intermittent drainage way in the Rear of Lot 12 to less than significant impacts.

- f) The project area is slated for development and will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact will occur.

V. CULTURAL RESOURCES –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TRIBAL CULTURAL RESOURCES –

Would the project:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, 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: ?

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| e) 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set for the 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SETTING

Nevada County is part of the Sierra Nevada Range, a geologic block approximately 400 miles long and 80 miles wide which extends in a north-south bank along the eastern portion of California. Two features of the Sierra Nevada distinctly characterize the terrain of Nevada County. The western third of the county is comprised of rolling foothills which form a transition between the low-lying Sacramento Valley and the mountains to the east. The area extending from the Yuba County line to just northeast of the Grass Valley/Nevada City area is generally comprised of metavolcanics and granitic formations.

Prehistoric use and occupation focused on major surface water sources and other natural resource areas, with particular emphasis given to stream confluences and to ecotones created at the interface of foothill/valley lands, elements of which are located within and/or near the present study area.

Except for the project site and the immediate area fronting Highway 49/20, the project area is largely developed with low and medium residential uses to the north, commercial and industrial uses to the south and east and Highway 49/20 to the west. Considering the site is an infill site surrounded by development and further considering ± 1.45 acres of the ± 3.74 -acre site is being developed; the remainder being left in open space, a project specific cultural study has not been prepared for the project site.

Preparation of the City's Historical Element of the General Plan included in-depth historical and cultural research and a records survey. One result of the research project is a Cultural Sensitivity map (Figure 3.12-1). Documented historical and cultural features, lore, and historical appearance all contribute to cultural sensitivity.

Comprehensive Records Search through the North Central Information Center was undertaken as the first principal research project. This study yielded a total of 103 prior reports performed within the confines of the City's Planning Area. The project area is not within an area of Moderate or High Cultural Sensitivity Area.

IMPACTS

- a)&b) As noted, the project site is outside of the City's 1872 Historic Townsite; within a recently developed area. There are no structures on the property that are considered a historic resource nor has recent development in the area encountered any evidence of archaeological resources. Currently vacant and surrounded by development to the north, south and east, infill residential development of the property is not anticipated to have a substantial adverse change to the significance of a historic resource. No impact will occur.
- c) The project site does not contain a unique paleontological resource, site, or unique geologic feature. No impact will occur.
- d-f) Notice of the project was circulated to interested, Responsible and Trustee agencies on August 8, 2019. The United Auburn Community of the Auburn Rancheria requested formal consultation under AB 52.

On August 27, 2018, City staff walked the property with representatives of the *United Auburn Indian Community (UAIC)*. During the site survey, the UAIC Tribal Historic Preservation Officer did not identify potential remnant tribal cultural resources on the property. However, due to the proximity of the project site to Little Wolf Creek, there is a likelihood that surface finds may occur should the blackberry bushes be removed. To this end, the project is proposed to designate ±2.29 acres adjoining Little Wolf Creek as open space. This area is also within the FEMA designated flood zone. Despite reserving the area adjoining Little Wolf Creek as open space, development of the remaining ±1.45 acres may contain inadvertent Tribal resources or Native American human remains. However, Mitigation Measures recommended for the protection of tribal cultural resources for the project would reduce potential impacts to acceptable levels.

CUL 1 - Mitigation Measure:

Inadvertent Discoveries – If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, are discovered work shall cease within 100 feet of the find (based on the apparent distribution of cultural resources) and a qualified cultural resources specialist and UAIC representative will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request materials not be permanently curated, unless requested by the Tribe.

If adverse impacts to tribal cultural resources, unique archaeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur.

CUL 2 – Mitigation Measure:

Inadvertent Discoveries – In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact by telephone within 24 hours, the Native American Heritage Commission in accordance with Section 5097.98 of the Public Resource Code.

CUL 3 – Mitigation Measure

Post Ground Discovery – A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the applicant shall notify the Community Development Department of the proposed earthwork start-date. The Community Development Department will then contact the United Auburn Indian Community (UAIC). A UAIC tribal representative shall be invited to inspect the site, including any soil piles, trenches, or other disturbed areas, within the first five days of ground-breaking activity. During this inspection, a site meeting of construction personnel shall also be held to afford the tribal representative the opportunity to provide tribal cultural resources awareness information. If any tribal cultural resources, such as structural features, usual amounts of bone or shale, artifacts, human remains, or architectural remains are encountered during this initial inspection or during any subsequent construction activities, work shall be suspended within 100 feet of the find. The project applicant shall then coordinate any necessary investigation of the site with the UAIC tribal representative, a qualified archaeologist approved by the City. As part of the site investigation and resource assessment the archeologist shall consult with the UAIC and provide proper management recommendations should potential impacts to the resources be found by the Community Development Department to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the Community Development Department by a qualified archaeologist. Possible management recommendations for tribal cultural resources, historical, or unique archaeological resources could include resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, preservation in place or other measures.

VI. GEOLOGY AND SOILS –

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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ii) Strong seismic ground shaking?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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iii) Seismic-related ground failure, including liquefaction?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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iv) Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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d) Be located on expansive soil, as defined in the Building Code, creating substantial risks to life or property?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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SETTING

The project site is located on the northern half of the Sierra Nevada Geomorphic Providence of California. The Sierra Nevada Geomorphic Province is bordered to the north by the Cascade and Basin and Ranges, to the west by the Great Valley, to the east by the Basin and Range, and to the south by the Transverse Ranges and the Mojave Desert. The Sierra Nevada is nearly 400 miles in length and averages about 50 miles wide. Formation of the Sierra Nevada occurred by tectonic shifting of the Sierran Block; the western side dropping to form the Great Valley and the eastern side being uplifted to form the Sierra Nevada.

A Geotechnical Engineering Report was prepared for a former project entitled "Empire Mini Storage" for the property. The conclusions of the report are:

- The site is suitable for proposed development provided the geotechnical engineering recommendations and design criteria are incorporated into the project plans.
- The primary concern regarding the site is the presence of fill in areas of proposed improvements. In general, the fill was observed to be predominately granular and varied from loose to medium dense, based on subsurface observations. The highly variable nature of the fill material makes a reliable determination of the relative compaction difficult. The presence of loose fill within the areas of proposed improvements increases the likelihood of total and differential settlement-induced distress to the proposed structures and pavements. Recommendations to mitigate settlement-induced distress are presented.
- Options to mitigate the existing, nonhomogeneous fill include incorporating the use of a special, engineered foundation system for the structures (e.g. pier-and grade-beam or mat foundations) and fill over excavation and replacement.
- Design criteria for engineered foundation systems are required due to the apparent variable nature of the existing fill.

IMPACTS

- a) Based on the *2010 Fault Activity Map of California prepared by the California Geological Survey*, the nearest faults are the Grass Valley Fault, Wolf Creek Fault Zone, Spenceville Deadman Fault, and Swan Ravine Fault located 2 miles east, 6 miles south, 12 miles west, and 14 miles northwest, respectively. The Grass Valley Fault is a Pre-Quaternary fault (i.e. no visible signs of movement within 1.6 million years). This fault is not necessarily inactive. The Wolf Creek and Spenceville Deadman Faults show geomorphic evidence of movement during the late Pleistocene epoch (700,000 to 11,000 years ago), and the Swan Ravine Fault shows geomorphic evidence of movement undifferentiated during the Quaternary period.

According to the 2008 Seismic Motion Interpolator prepared by the California Division of Mines and Geology, there is a 10 percent probability that the site will experience a horizontal ground acceleration of 0.16g in the next 50 years. This is a relatively low level of ground shaking for California. Earthquake faults, strong seismic ground shaking, seismic related ground failure and landslide impacts are considered less than significant.

- b) The Geotechnical Report prepared for the project site included erosion control recommendations including, which serve for both top soil and Little Wolf Creek preservation. Such measures include: "At no time should any sediment, rocks, debris, or water be allowed to impact the waters of Little Wolf Creek". Graded portions of the site should be seeded as soon as possible to allow vegetation to become established prior to and during the rainy season. In addition, grading that results in greater than one acre of soil disturbance or in sensitive areas will require the preparation of site-specific storm water pollution prevention plan. As a minimum, the following controls should be installed prior to and during grading to reduce erosion. The following mitigation measures will reduce potential impacts to acceptable levels:

GEO 1 Mitigation Measures:

1. Prior to commencement of site work, fiber rolls shall be installed down slope of the proposed area of disturbance to prevent migration of sediment, rocks, and other objects from the site. Fiber rolls on slopes are intended to reduce sediment discharge from

- disturbed areas, reduce the velocity of water flow, and aid in the overall stability of slopes. The fiber rolls should remain in place until construction activity is complete and vegetation becomes established.
2. Soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District.
 3. Following seeding, jute netting or erosion control blankets should be placed and secured over the slopes steeper than 2:1, H:V, to keep seeds and straw from being washed or blown away. Tackifiers or binding agents may be used in lieu of jute netting.
 4. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should concentrated surface water be allowed to run over slope faces. The intercepted water should be discharged into appropriate collection areas.

Provided the recommendations of the Geotechnical Report are followed as mitigated below, the project will not result in substantial soil erosion or the loss of topsoil. These impacts are less than significant.

- c)&d) A field investigation occurred on April 21, 2004 by the Geotechnical Engineer of Record. The investigation included the excavation of nine exploratory trenches across the project site. Excavated depths ranging between 5 and 8.5 feet below the ground surface using a John Deere 410 backhoe with an 18-inch bucket were conducted.

The primary concern regarding the project site is the presence of existing fill in areas of proposed improvements. Apparent fill to depths of approximately 7 feet bgs was observed in exploratory trenches. At this time, the method of fill placement and compaction is unknown. Additionally, it is not known how the site was prepared for fill placement or if significant amounts of deleterious material exist in the fill at locations outside of the exploratory trenches. In general, the fill was observed to be predominately granular and varied from loose to medium dense, based on subsurface observations. The highly variable nature of the fill material makes a reliable determination of the relative compaction difficult. The presence of loose fill within the areas of proposed improvements increases the likelihood of total and differential settlement-induced distress to the proposed structures and pavement.

Trenches T-1 through T-6 revealed fill of variable composition to varying depths. T-7 was terminated at or near refusal on a weather boulder. Trenches T-4 and T-6 exhibited seepage at depths of 4 feet and 3 feet respectively. Based upon the trenching, the site-specific geotechnical engineering recommendations have been provided based upon field observations, laboratory testing, and engineering analysis. The grading recommendations address clearing and grubbing, soil preparation, fill placement, fill slope grading, erosion control, subsurface drainage, surface water drainage, plan review, and construction monitoring. However, these impacts are considered less than significant with the following Mitigation Measure:

GEO 2 - Mitigation Measure:

The applicant shall submit to the City Engineer for review and acceptance two copies of a detailed Soils Engineering Report and Engineering Geology Report certified by a Civil Engineer registered in the State of California. In addition to the California Building Code requirements, the report shall specify the pavement structural sections for the proposed roadways in relation to the proposed traffic indexes. The improvements and grading plans shall incorporate the recommendations of the approved Soils Engineering Report and Engineering Geology Report. The project developer shall retain a civil engineer, soils engineer, and engineering geologist to provide professional inspection of the grading operations. If work is observed as not being in compliance with the California Building Code and the approved improvements and grading plans, the discrepancies shall be reported immediately in writing to the permittee, the Building Official, and the Engineering Division.

- e) The project will be connected to City of Grass Valley utilities for both water and sewer. Therefore, this potential impact is not applicable. No impact will occur.

VII. GREENHOUSE GASES –

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate Greenhouse emissions, either directly or indirectly, that may have a significant impact on the environment. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy or regulation of any agency adopted for the purpose of reducing the emissions of greenhouse gases. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SETTING

The City of Grass Valley has not conducted a greenhouse gas emissions inventory or adopted a Climate Action Plan, performance standards, or a GHG efficiency metric. However, the City has recently adopted an *Energy Action Plan* and the *Grass Valley 2020 General Plan* includes numerous goals, policies, and programs which, if implemented, will reduce Grass Valley's impacts on global climate change and reduce the threats associated with global climate change to the City.

CEQA Guidelines Section 15064.4 provides direction to lead agencies in determining the significance of impacts from GHG emissions. Section 15064.4(a) calls on lead agencies to make a good faith effort, based upon available information, to describe, calculate or estimate the amount of GHG emissions resulting from a project.

The lead agency has the discretion to determine, in the context of a particular project, how to quantify GHG emissions.

Greenhouse gasses (GHG) include gases that can affect the earth's surface temperature. The natural process through which heat is retained in the troposphere is called the greenhouse effect. The greenhouse effect traps heat in the troposphere through a process of absorbing different levels of radiation. GHG are effective in absorbing radiation which would otherwise escape back into space. Therefore, the greater the amount of radiation absorbed, the greater the warming potential of the atmosphere. GHG are created through a natural process and/or industrial processes. These gases include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrfluorocarbons (HFCs), Perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆).

Since 2005, the California legislature adopted several bills, and the Governor signed several Executive Orders, in response to the impacts related to global warming. Assembly Bill 32 states global warming poses a serious threat to California and directs the Air Resources Board to develop and adopt regulations that reduce GHG emissions to 1990 levels by the year 2020.

Senate Bill 97 requires an assessment of projects GHG emissions as part of the CEQA process. SB 97 also required the Office of Planning and Research to develop guidelines to analyze GHG emissions.

The NSAQMD has not adopted thresholds of significance for GHG emissions. Due to the nature of global climate change, it is not anticipated that a single project would have a substantial impact on global climate change. Although it is possible to estimate a projects CO₂ emission, it is not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment.

IMPACTS

- a)&b) Calculating the Greenhouse Impacts on an individual project is difficult to qualify or quantify. The GHG emissions from the proposed project would not individually generate GHG emissions enough to measurably influence global climate change. However, ongoing occupancy and operation would result in a net increase of CO₂ and other greenhouse gas emissions due to vehicle miles traveled, energy use, and solid waste disposal. However, as an infill residential project, vehicle miles traveled may be reduced and considered less than significant. According to the *CaleEMod* program conducted for the project, the following air quality impacts are anticipated with the proposed Heritage Oaks Phase II project:

Project Construction and Operational Emissions Estimates

	ROG (lbs/day)	NO _x (lbs/day)	PM ₁₀ (lbs/day)	CO (lbs/day)
Project Construction Impacts	87.84	33.49	5.09	22.89
Project Operational Impacts	0.84	1.92	.062	4.74
Level A Thresholds				
NSAQMD- Significance Thresholds	<24 lbs/day	<24lbs/day	<79lbs/day	N/A
Level B Thresholds				

Maximum Project Emissions	24-136 lbs/day	24/136 lbs/day	79-136 lbs/day	N/A
Level C Thresholds				
Maximum Project Emissions	>136 lbs/day	>136 lbs/day	>136 lbs/day	N/A

As noted in the Air Quality Section of this Initial Study, the above impacts are within the acceptable level of impacts as viewed by the NSAQMD. In addition, the following project components and California Green Building requirements apply to the proposed residential project:

- All new residential construction with attached private garages shall have an electric vehicle (EV) charging station.
- Residential projects with an aggregate landscape area equal to or greater than 500 square feet shall comply with either a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWEL0), whichever is more stringent.
- Toilets and showers shall be low flow.
- Construction waste management forms shall be completed including recycling and/or reuse a minimum of 65 percent of nonhazardous construction and demolition waste.
- All exterior lighting shall be high efficacy and be controlled by a manual on/off switch.
- All high efficacy light fixtures shall be certified as "high-efficacy" light fixtures by the California Energy Commission.
- Each of the homes shall be constructed in accordance with Title 24 Energy Standards.
- Solar shall be required for building permit applications deemed complete after January 1, 2020.
- As an infill residential project, in proximity to services, it is anticipated that reduced vehicle trips will result than otherwise would have occurred.

The above CA Green Building Code requirements coupled with the analysis and conditions of approval in the Air Quality Section of this Initial Study, will assure that Greenhouse Gas impacts remain less than significant.

VIII. HAZARDS AND HAZARDOUS MATERIALS –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

materials into the environment?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SETTING

Hazardous materials stored and used onsite and on surrounding properties would be associated with common construction and household chemicals used. However, these common household chemicals are legally purchased and are not considered a health hazard.

The City's Fire Department responds to all calls for emergency services within City limits that include, but are not limited to: fires, emergency medical incidents, hazardous materials incidents, public assists, traffic, vehicle accidents and other situations. Fire Station #1, located on Brighton Street, is staffed 24 hours a day. This station is located less than one mile from the project site.

In the Grass Valley area, industrial and commercial facilities that use, store, or dispose of hazardous materials present the greatest potential hazards. A search of available environmental records conducted indicates that the project site is not listed as a hazardous materials site and no listed sites occur within an ASTM standard distance radius.

IMPACTS

- a)&b) The proposed project does not involve an activity that may create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No impact will occur.

The properties are not listed on the City's Hazardous Waste Site or Nevada County's Contaminated Sites lists. In addition, staff conducted a record search on the *State's Geotracker, Envirostor and Department of Conservation websites* and found no evidence of abandoned mine or hazardous waste sites on or near the project site.

The City's General Plan identifies upwards of 46 mining claim boundaries in the Grass Valley area, but none are located in the proposed project site. However, staff acknowledges that the area could contain mine-related features since they are very common, and not an unusual circumstance, in the City. No impact will occur.

- c)&d) The proposed project does not involve an activity that will emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The project is not located on a site which is included on a list of hazardous materials sites. No impact will occur.

- e)&f) The project site is located approximately 2 miles (as the crow flies) from the Nevada County Airport. As required by the Public Utilities Code, the Airport Land Use Commission adopted the *Nevada County Airport Land Use Compatibility Plan*. The compatibility plan's function is to promote compatibility between the airport and surrounding land uses with respect to: height (e.g. height of structures), safety (e.g. number of persons per acre), and noise (e.g. noise sensitive land uses). According to the Nevada County Airport Land Use Compatibility Plan, the project site is located outside of the area of influence.

The project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The project will not expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands. No impact will occur.

- g)&h) Though the project site, as with most of the City, is designated as within a high fire hazard severity zone, the proposed access and water system will support adequate fire suppression activities. According to the City Fire Chief, development of this does not expose a greater risk from wildfire than any other area in the City.

The project will not impair implementation of or physically interfere with an emergency response plan or emergency evacuation plan. This impact is less than significant.

IX. HYDROLOGY AND WATER QUALITY –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The property consists of grass covered pasture type areas with fill slopes of varying gradients of 4-15%. Generally, stormwater offsite and onsite flows in a sheet flow manner to a wetland located within the westerly one-half of the site. Stormwater gradually channelizes in a southerly direction, combining with some stormwater from the partially improved Joyce Drive. Stormwater then passes through an existing 12-inch culver across existing Joyce Drive and continues offsite towards the Golden Center Freeway and ultimately to Wolf Creek located along the west property line.

The overall watershed area is ± 9.9 acres which is sloping southeasterly towards the existing wetland and Joyce Drive culvert crossing.

Approximately ± 2.29 acres of the ± 3.74 -acre site is within the FEMA Flood Zone AE designation. The AE designation is defined as: "The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annul chance flood can be carried without substantial increases in flood heights. As proposed, no development is planned in the FEMA Flood Zone AE designation.

The project area that is proposed for development is located in Flood Zone X (Areas determined to be outside the 500-year flood plain) according to the *Flood Insurance Rate Map for the County of Nevada, Map No. 06057C0627E dated February 3, 2013*. Due to the site's topography and location away from any major waterways, flooding is not a concern on the project site according to Federal Emergency Management Agency (FEMA).

IMPACTS

- a) According to the *Habitat for Humanity Drainage Report prepared by SCO Planning and Engineering dated November 2019*, on-site drainage will be collected in a new drainage system containing drainage inlets, storm drain, manholes, etc. Runoff from the proposed residences will exit roof downspouts into small infiltration trenches prior to discharge to the existing natural drainage course. Runoff from pavement areas is conveyed along curb and gutter to one of two storm drain inlets with deepened sumps for retention and infiltration. Storm water is further conveyed through new storm drain and ultimately will enter a "Stormceptor" manhole for removal of potential pollutants prior to discharge into new Bio-Swales south of residential development. Drainage is then conveyed to a new retention pond allowing infiltration and removal of potential pollutants prior to discharge to the adjacent natural drainage course.

The existing 12-inch culvert crossing Joyce Drive presently will be removed and replaced with a new 24-inch culvert to improve the hydraulic capacity of the culver crossing. Stormwater runoff from the portion of Joyce Drive on the south side of centerline, or "crown" of Joyce Drive will sheet flow through a vegetative buffer strip, reducing velocities, allowing infiltration and removal of potential pollutants prior to discharge to the adjacent natural drainage course. All drainage facilities are designed to accommodate the required storm events in accordance with the City of Grass Valley requirements.

Based upon the cut and fill quantities proposed, the proposed project will require a grading permit to be issued by the City of Grass Valley, Public Works Division pursuant to the City's Grading Ordinance. The City's Grading Ordinance requires specific measures to address erosion and the introduction of construction materials into surface waters. In addition, Section 402(p) of the Clean Water Act requires National Pollutant Discharge Elimination System (NPDES) storm water permitting to be approved by the Regional Water Quality Control Board for projects disturbing over 1 acre. Standard Mitigation Measures requiring a NPDES permit from the RWQCB will reduce potential impacts to a less than significant impact.

HY/WQ 1 - Mitigation Measures:

1. Prior to the issuance of a grading permit, the applicant shall submit a Storm Water Pollution Prevention Plan (SWPPP) to the City for acceptance, file a Notice of Intent with the California Water Quality Control Board and comply with all provisions of the Clean Water Act. The applicant shall submit the Waste Discharge Identification (WDID) number, issued by the state, to the City of Grass Valley Engineering Division.
2. Prior to the issuance of a grading permit, a detailed grading, permanent erosion control and landscaping plan shall be submitted for review and approval by the Engineering Division prior to commencing grading. Erosion control measures shall be implemented in accordance with the approved plans. Any expenses made by the City to enforce the required erosion control measures will be paid by deposit.

Additionally, construction on Lot 12 near the intermittent drainage channel could potentially affect water quality. However, the following Mitigation Measures of the Stream Restoration & Enhancement Plan include the following for work adjacent to Wolf Creek and intermittent drainage area in the rear of Lot 12:

- b) The proposed project will be connected to the City of Grass Valley municipal water supply. The water connection of 14 single family homes is not anticipated to deplete groundwater supplies or interfere substantially with groundwater recharge. This impact is less than significant.
- c)-d) Hydrology calculations for the project site have been provided in the drainage study prepared for the project. Pre- and post-development hydrology analysis include calculations of impervious surfaces for the purpose of determining impacts of the proposed development. Peak flows were determined for 10- 25- and 100-year storm events.

The post-development rate and volume will be reduced below the pre-development rate and volume with the retention facilities and BMPs identified herein. Onsite retention facilities will reduce the post-development flow by attenuating the peak flow. Post Mitigated (after retention) flow calculation is based on Federal Highway Administration Hydraulic Design of Highway Culverts, Hydraulic Design Series No. 5 (HDS-5).

- e) The project includes Water Quality Treatment facilities in accordance with State Regional Water Quality Control Board and City requirements. The retention facilities provide water quality

treatment, recharge natural groundwater and attenuate peak flows thus reducing runoff volume and rate of discharge.

As part of the Stormwater Quality Pollution Control Plan prepared for the project, several erosion control measures will be implemented as outlined in the Geology Section of this Initial Study. These measures include: At no time should any sediment, rocks, debris, or water be allowed to impact the waters of Little Wolf Creek. Graded portions of the site should be seeded as soon as possible to allow vegetation to become established prior to and during the rainy season. In addition, grading that results in greater than one acre of soil disturbance or in sensitive areas will require the preparation of site-specific storm water pollution prevention plan. As a minimum, the following controls should be installed prior to and during grading to reduce erosion.

HY/WQ 2 - Mitigation Measures:

To protect soil and water resources during the implementation of the stream restoration project, the following Best Management Practices (BMPs) shall be implemented for the duration of the implementation phase and the efficacy of the BMPs monitored for the duration of the maintenance, monitoring, and reporting phase:

1. Prior to commencement of site work, fiber rolls should be installed down slope of the proposed area of disturbance to prevent migration of sediment, rocks, and other objects from the site. Fiber rolls on slopes are intended to reduce sediment discharge from disturbed areas, reduce the velocity of water flow, and aid in the overall stability of slopes. The fiber rolls should remain in place until construction activity is complete and vegetation becomes established.
 2. Soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District.
 3. Following seeding, jute netting or erosion control blankets should be placed and secured over the slopes steeper than 2:1, H:V, to keep seeds and straw from being washed or blown away. Tackifiers or binding agents may be used in lieu of jute netting.
 4. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should concentrated surface water be allowed to run over slope faces. The intercepted water should be discharged into appropriate collection areas.
- f) Storm drainage from impervious areas (roads, walks, roofs) is collected and routed through water quality treatment facilities for removal of potential pollutants. These consist of a Multiple Treatment System which includes the following Best Management Practices (BMP's) in series prior to discharge of flow to existing drainage facilities. BMPs shall be shown on the project plans including:

BMP#

TC-10 Infiltration trenches will be installed at roof downspouts for both retention of storm water runoff and for capturing pollutants prior to entering the natural drainage course. Runoff is stored in the void space between the stones and infiltrates into surrounding soil.

TC-11 Infiltration basins will be installed at the end of the biofiltration swales for stormwater runoff storage and exfiltration into the underlying soil. Pollutant removal occurs through the infiltration of runoff and the absorption of pollutants into the soil and vegetation.

TC-30 Vegetated biofiltration swales will be provided at the discharge of the underground storm water piping. The swale will trap particulate pollutants, promote infiltration, reduce flow velocity, and increase time of concentration of stormwater runoff.

TC-31 A vegetated buffer strip will be provided southerly of the Joyce Drive roadway. The fill slope and area up to the right of way will have amended soils and be seeded to create a vegetated buffer strip that will filter sheet flow from the roadway crown southerly. The strip will reduce runoff velocities allowing stormwater infiltration and filtration of potential pollutants.

TC-50 Water Quality Inlets consist of a 1-foot deep sump at bottom of all storm drain inlets that collects silt and sediment and allows infiltration. At the downstream manhole, there will be an in-line Stormceptor manhole to remove trash and debris and larger suspended solids using radial flow prior to discharge.

During construction, additional BMPs including temporary erosion control facilities shall be implemented to control pollutants that have a potential to affect the quality of storm water discharges from the construction site. Implementation of BMPs for Construction Activities will be in accordance with California State Water Resources Control Board (SWRCB) requirements.

- g)-j) The subject property contains ± 2.29 acres of Flood Zone along the east side of Highway 49/20 according to FEMA Map Panel Number 0605700629E effective date February 3, 2010. The area within the designated Flood Zone will be preserved as open space to be maintained by the Heritage Oaks Phase II HOA. The developed area of ± 1.45 acres will not expose people or structures to a significant risk of loss and is not subject to inundation by seiche, tsunami, or mudflow. No impact will occur.

X. LAND USE AND PLANNING —

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

adopted for the purpose of avoiding or mitigating an environmental effect?

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

SETTING

The ±3.74-acre project site is an infill residential parcel surrounded by low density residential uses on the north with commercial and industrial uses to the south and east.

The City of Grass Valley 2020 General Plan Land Use Map (updated February 2007) identifies the property and area as slated for Commercial uses. The zoning designation is likewise commercial. Amending the land uses to Neighborhood Center Flex (NC-Flex) is consistent with the adjoining land uses along Joyce Drive.

IMPACTS

- a)&b) The project site is surrounded by urban development on all sides and is considered in-fill development with residential designs consistent with the neighborhood. Multiple 2020 General Plan policies, goals and objectives support both in-fill development and preservation of existing neighborhoods which include, but are not limited to:

2-LUG - Promote infill as an alternative to peripheral expansion where feasible.

3-LUO - Reduction in the amount of land necessary to accommodate future growth.

4-LUO - Reduction in the environmental impacts associated with peripheral growth.

4-LUG - Protect and enhance the character of established single-family neighborhoods.

10-LUO - Preservation of existing neighborhoods.

3-CG - Provide for the safe and efficient movements of people and goods in a manner that respects existing neighborhoods and the natural environment.

10-CO - Protection of stream courses, riparian areas and other natural features.

Development of the property will not divide an established community or conflict with any applicable land use plan, policy or regulation. Development of the site is in accordance with the City's NC-Flex Zone designation. No impact will occur.

- c) The property is slated for urban development according to the City's General Plan. The proposed project will not conflict with any applicable habitat conservation plan or natural community conservation plan. No impact will occur.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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XI. MINERAL RESOURCES –

Would the project:

XI. MINERAL RESOURCES –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The City of Grass Valley adopted a *General Plan Mineral Management Element (MME)* on August 24, 1993. The MME contains four resource areas defined as: MRZ - 1 through MRZ - 4. The designations are described as follows:

MRZ - 1: Areas where adequate information indicates that no significant mineral deposits are present.

MRZ - 2: Areas where adequate information indicates that significant mineral deposits are present or where it is judged that there is a high likelihood for their presence.

MRZ - 3: Areas containing mineral deposits the significance of which cannot be evaluated from available data.

MRZ - 4: Areas where available information is inadequate for assignment to any other MRZ zone.

IMPACTS

- a)&b) The *General Plan Mineral Management Element* does not show the site as being near an area classified as having significant mineral deposits. The Heritage Oaks Phase II property is not located near one of the two areas identified in the Mineral Management Element (MME) as being targeted for mining conservation. Should mining activities be proposed in the area, the MME includes a policy statement that requires a proposed mine project to address potential impacts on the urban uses based upon the nature of the mining activities. According to the MME, the proposed project is not anticipated to result in the loss of availability of a known mineral resource or locally known minimal resource. No impact will occur.

XII. NOISE—

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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XII. NOISE—

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that disrupts or interferes with normal human activities. Although exposure to high noise levels over an extended period has been demonstrated to cause hearing loss, the principal response to noise is annoyance.

Sound intensity is measured in decibels (dB) using a logarithmic scale. For example, a sound level of 0 dB is approximately the threshold of human hearing, while normal speech has a sound level of approximately 60 dB. Sound levels of approximately 120 dB become uncomfortable sounds.

Two composite noise descriptors are in common use today: L_{dn} and CNEL. The L_{dn} (Day-Night Average Level) is based upon the average hourly noise level over a 24-hour day, with a +10-decibel weighting applied to nighttime (10:00 p.m. to 7:00 a.m.) noise values. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were subjectively twice as loud as daytime exposures. The CNEL (Community Noise Equivalent Level), like L_{dn} , is based upon the weighted average hourly noise over a 24-hour day, except that an additional +4.77 decibel penalty is applied to evening (7:00 p.m. to 10:00 p.m.) hours. The CNEL was developed for the California Airport Noise Regulations and is normally applied to airport/aircraft noise assessment. The L_{dn} descriptor is a simplification of the CNEL concept, but

the two will usually agree, for a given situation, within 1dB. Like the noise levels, these descriptors are also averaged and tend to disguise short-term variations in the noise environment. Because they presume increased evening or nighttime sensitivity, these descriptors are best applied as criterial for land uses where nighttime noise exposures are critical to the acceptability of the noise environment, such as residential developments.

IMPACTS

- a) *Construction Noise* – The project includes earthwork construction and house construction that will generate additional noise in the residential neighborhood. Earthwork construction is anticipated to be completed in one phase. Dependent upon home sales, house construction may occur over several years considering Habitat for Humanity's construction model. During the construction phases, noise from construction activities (dozers, graders, generators, saws, pneumatic tools, etc.), will occur in the project area. Activities involved in construction will generate noise levels, generally ranging from 70 to 90 dB at a distance of ± 50 feet. These can generally be reduced approximately 5 dB at distances of 100 feet.

Equipment used for the project and the dBA for each type of equipment includes the following:

In accordance with the City's Municipal Code, construction activities will be temporary in nature and will occur between normal working hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and not at all on Sunday and legal holidays.

The nearest sensitive receptors are the homes on the north side of Joyce Drive approximately ± 50 feet from the project site.

Equipment Type	dBA at 50 feet
Backhoe	84 dBA
Excavator	81 dBA
Generator	81 dBA
Jackhammer	89 dBA
Paver	77 dBA
Pickup Truck	75 dBA
Pneumatic Tools	85 dBA

According to the State's General Plan Guidelines and City General Plan Noise Element, noises which are generally less than ± 60 dB CNEL are normally acceptable for outdoor low-density residential uses taking into account that any building impacted would be of normal conventional construction without any special noise insulation requirements. As noted, acceptable noise levels are determined using the Community Noise Equivalent Level (CNEL). The type of equipment used may intermittently exceed ± 60 dB, during the working hours from 7:00 a.m. to 6:00 p.m. However, based upon the temporary and fluctuating nature of construction noise and the following Mitigation Measure, construction noise would be reduced to a less than significant level.

NOISE 1 - Mitigation Measure:

Prior to the issuance of grading and/or building permits, the project grading and building plans shall identify locations for all stationary noise-generating construction equipment, such as air compressors, that are located as far as practical from nearby homes. When such equipment must be located near adjacent residences, project grading and improvement plans shall include provisions to provide acoustical shielding of such equipment.

Existing Noise – The existing ambient noise level environment at the project site is defined primarily by traffic on SR-49/20. To quantify the existing ambient noise environment at the project site, *Bollard Acoustical Consultants, Inc.*, conducted long-term (72) hour noise level measurements on the project site during May 11-13, 2019. The purpose of the continuous noise level survey was to determine existing traffic noise exposure on the project site in terms of the day/night average level (Ldn), and to determine the types of changes in noise environment which occur at the project site over a 24-hour period. The noise level measurement results are summarized below in **Table 2 – Summary of Long-Term Ambient Noise Monitoring Results**.

Table 2 Summary of Long-Term Ambient Noise Monitoring Results – May 11-13, 2019 Heritage Oaks Phase 2 Residential Development – Grass Valley, California								
Location ¹	Date	Ldn, dB	Average Measured Hourly Noise Levels (dB) ²					
			Daytime (7 a.m. to 10 p.m.)			Nighttime (10 p.m. to 7 a.m.)		
			Leq	L50	Lmax	Leq	L50	Lmax
Site 1: Western end of project site, approximately 120 feet from the centerline of SR-49	5/11/19	58	56	55	72	50	45	67
	5/12/19	57	56	54	73	48	44	66
	5/13/19	59	57	55	72	51	45	69
Notes: ¹ Long-term ambient noise measurement location is shown on Figure 1. ² Detailed results of the ambient noise survey are contained in Appendices C and D. Source: Bollard Acoustical Consultants, Inc. (2019)								

The **Table 2** data indicate that measured exiting ambient noise levels at the project site were comparable throughout the entire monitoring period. The **Table 2** data also indicated that measured existing day-night average noise levels at the project site comply with the City of Grass Valley 60 dB Ldn exterior noise level standard applicable to residential uses. Nonetheless, a detailed analysis of future traffic noise levels was conducted as discussed below.

Evaluation of Future Traffic Noise Levels at the Project Site – According to traffic volume data obtained from Caltrans traffic counts (2017), the segment of SR 49 adjacent to the project site currently experiences an average daily traffic (ADT) volume of approximately 31,900 vehicles. The Caltrans counts for that segment of highway also indicate 3 percent and 2 percent of the overall volume were attributable to medium trucks and heavy trucks respectively.

As indicated in **Table 2**, existing traffic noise level measurements conducted at a distance of 120 feet from the centerline of SR-49 were 59 dB Ldn (highest measured), indicating an over-prediction by the FHWA Model of 11 dB. The discrepancy in predicted versus measured traffic noise levels is believed to be primarily due to the shielding provided by intervening topography relative to a depressed project site. In order to provide future traffic noise level predictions representative of local conditions, a conservative offset of -5 dB was applied to FHWA Model in the assessment of SR-49 traffic levels at the project site.

Predicated Future Exterior Traffic Noise Levels at the Project Site – The calibrated FHWA Model was used with future traffic data to predict future traffic noise levels at the nearest proposed building facades and outdoor activity areas (backyards) of the development. Future traffic volumes for SR-49 were conservatively estimated by assuming an increase of 50% relative to

existing conditions. The FHWA Model inputs and predicted future traffic noise levels at the project site are summarized below in **Table 3 – Predicted Future Exterior Traffic Noise Levels**.

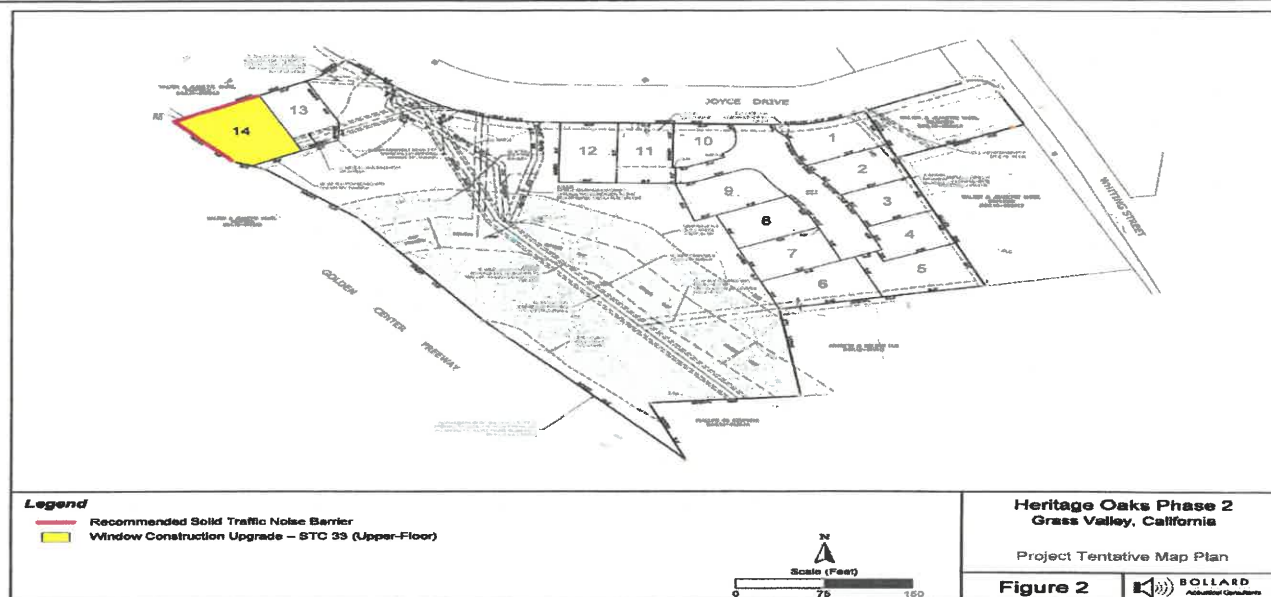
Table 3 Predicted Future Exterior Traffic Noise Levels ¹ Heritage Oaks Phase 2 Residential Development – Grass Valley, California				
Roadway	Lot	Location	Distance from Centerline (feet) ²	Future Exterior L _{dn} (dB) ³
SR-49	14	Outdoor activity area	120	66
		First-floor facade	110	67
		Upper-floor facade	110	75
	12	Outdoor activity area	300	60
		First-floor facade	310	60
		Upper-floor facade	310	68
Notes: 1 A complete listing of FHWA Model inputs and results are provided in Appendix F. 2 Distances measured from indicated location to the centerline of SR-49. 3 A conservative offset of -5 dB was applied at ground-floor locations (outdoor activity areas and first-floor facades) to account for the calibration results of the FHWA Model. A +3 dB was applied to the upper-level facades due to reduced ground absorption at elevated floor levels.				
Source: Bolland Acoustical Consultants, Inc. (2019)				

As indicated in **Table 3**, the predicted future SR-49 traffic noise level of 60 dB L_{dn} at the outdoor activity area of Lot 12 would satisfy the City of Grass Valley 60 dB L_{dn} normally acceptable and 65 dB L_{dn} conditionally acceptable exterior noise level standards. However, at the outdoor activity area of Lot 14, future SR-49 traffic noise level exposure is predicted to exceed the City's normally acceptable and conditionally acceptable exterior noise level criteria. As a result, further consideration of exterior traffic noise mitigation measures would be warranted for the proposed backyard nearest to SR-49 (Lot 14).

Traffic Noise Mitigation for Outdoor Activity Areas – Noise mitigation measure for outdoor activity areas of residential development can take several forms, including setbacks, lot orientation and noise barriers. An analysis of noise barrier effectiveness for the residential lot proposed nearest to SR-49 (Lot 14) was conducted for this project and the results are summarized in **Table 4 – Traffic Noise Barrier Analysis Results – SR-49**.

Table 4 Traffic Noise Barrier Analysis Results – SR-49¹ Heritage Oaks Phase 2 Residential Development – Grass Valley, California					
Lot #	Predicted L _{dn} ^{2,3,4}				
	No Barrier	6' Barrier	7' Barrier	8' Barrier	9' Barrier
14	66	62	61	61	60
Notes: ¹ A complete listing of noise barrier effectiveness inputs and results are provided in Appendix G. ² Lot locations are shown on Figure 2. ³ Predicted L _{dn} (dB) at proposed outdoor activity area. ⁴ Barrier heights relative to backyard lot elevation. Source: Bollard Acoustical Consultants, Inc. (2019)					

As shown in **Table 4**, the results of the noise barrier analysis indicated that a noise barrier measuring 6-feet in height relative to backyard lot elevation would reduce future SR-49 traffic noise levels to 62 dB L_{dn}, which would satisfy the City of Grass Valley 65 dB L_{dn} conditionally acceptable exterior noise level standards. The location of the recommended noise barrier is shown below on **Figure 2 – Recommended Noise Barrier**.



Traffic Noise Mitigation for Residential Interiors – According to the FHWA Model, the future exterior traffic noise level is predicted to be approximately 67 dB Ldn or less at the first-floor façade of the residence constructed nearest SR-49 (Lot 14). After construction of the required noise barrier, the future traffic noise level is predicted to be approximately 62 dB Ldn or less at the first-floor façade of the residence on Lot 14. To achieve compliance with the City of Grass Valley 45 dB Ldn interior noise level standard within the first-floor rooms, a building façade noise reduction of at least 17 dB would be required of the first-floor exterior wall construction at the residence constructed on Lot 14.

Due to the reduced ground absorption at elevated positions, upper-floor traffic noise levels are predicted to be approximately 3 dB higher than first-floor levels. In addition, the upper-floor façade of the residence constructed on Lot 14 would not be shielded by the required noise barrier and would experience far less topography shielding than the ground floor façade. As a result, upper floor exposure at the residence on Lot 14 would be approximately 75 dB Ldn. Therefore, a building façade noise reduction of at least 30 dB would be required of the upper-floor exterior wall construction of the residence on Lot 14.

Standard residential construction typically results in an exterior to interior noise reduction of about 25 dB with windows closed, and approximately 15 dB with windows open. Therefore, standard construction practices would be adequate for the first-floor façade of the residence constructed on Lot 14 but would likely fail to provide the necessary noise level reduction at the elevated upper floor. In order to ensure satisfaction with the City of Grass Valley 45 dB Ldn interior noise level standard with a margin of safety, it is recommended that all upper-floor bedroom windows of residence constructed on Lot 14 from which SR-49 are visible (i.e. north, south, and west facing 2nd floor windows would be required). Figure 2 shows the lot location where such window upgrades are recommended. Accordingly, noise impact resulting from SR-49 would be reduced with the following Mitigation Measures:

NOISE 2 – Mitigation Measure:

- 1) A traffic noise barrier shall be constructed at the location indicated on **Figure 2**. A noise barrier measuring 6-feet in height relative to backyard elevation would result in the satisfaction of City of Grass Valley's 65 dB Ldn conditionally acceptable exterior noise level standard.

Suitable materials for the traffic noise barrier include masonry and precast concrete panels. Glass can be an effective barrier material in areas where preservation of view is desired. Other materials may be acceptable but should be reviewed by an acoustical consultant prior to use.

- 2) All upper-floor windows of the residence constructed on Lot 14 from which SR-49 would be visible (i.e. north, south, and west-facing bedroom windows) shall be upgraded to a minimum STC rating of 33 in order to comply with the City of Grass Valley 45 dB Ldn interior noise level standard with a margin of safety. **Figure 2** shows the lot location where such window upgrades are recommended.
 - 3) Mechanical ventilation (air conditioning) should be provided for all residences in this development to allow occupants to close doors and windows as desired to achieve compliance with the applicable interior noise level criteria.
- b)-d) Considering the level of earthwork required and distance from existing sensitive receptors, the project is not anticipated to expose people to ground borne vibration or ground borne noise levels. Grading will cause or contribute to a temporary increase in ambient noise levels; however, this impact is short-term and is subject to the City's Noise Ordinance which limits hours of construction. These impacts are considered less than significant.
- e)&f) As the crow flies, the project is located approximately 3 miles from the City of Grass Valley Municipal Airport. Due to the distance from the Nevada County Airport, noise impacts associated with the airport will not occur. No impact will occur.

XIII. POPULATION AND HOUSING –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The proposed project is in an area of medium density residential use. The land use designation for the project site is Commercial according to the *City of Grass Valley General Plan*. The zoning designation proposed is Neighborhood Center Flex (NC-Flex).

The project is served by existing utilities including sewer, water, electric, gas and storm drainage.

Except for the project site, the project area has been built out low and medium density residential uses.

IMPACTS

- a) Based upon 14 homes and a City of Grass Valley average household size of 2.04 persons per household, the project is anticipated to generate twenty-nine (29) persons which may or may not be new residents. The addition of twenty-nine (29) persons to the City of Grass Valley's population is negligible in comparison with its 13,041-total population. Therefore, this project will not result in a substantial population growth in an area, either directly or indirectly. This impact is less than significant.
- b)&c) The project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing or people elsewhere. No impact will occur.

XIV. PUBLIC SERVICES —

Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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Would the project:

- a) 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 of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

The proposed project area is within the City of Grass Valley and is served by the following public services:

- *Fire Protection:* The City of Grass Valley Fire Department provides fire protection and emergency medical services within the City. The Ophir Hill Fire Protection District serves lands east of the City limits, and the Nevada County Consolidated Fire District (NCCFD) serves the area generally north, west, and south of the City limits. The Fire Department is part of the tri-agency Joint Operating Agreement that includes the Nevada City Fire Department and NCCFD. The Fire Department has three locations: Fire Station #1 (474 Brighton Street), Fire Station #2 (213 Sierra College Drive), and administrative offices at City Hall (125 East Main Street). Equipment includes three front line engines, one reserve engine, one Office of Emergency Services (OES) engine, a ladder truck, one air support unit, and five staff vehicles.
- *Police Protection:* The Department currently employs 27 FTE sworn members and 3 FTE civilian staff. Based upon Grass Valley's population of 13,041 the department's ratio of police officers per 1,000 residents is 2.1.
- *Schools:* Throughout Grass Valley, the Grass Valley School District serves K-5 students and the Nevada Joint Union School District serves students in grades 9 – 12. In addition, through inter-district contracts (which can be retracted), 467 students from Grass Valley currently attend schools in other school districts.
- *Parks:* The Grass Valley public parks and recreation system is comprised of approximately 108 acres of City park lands, including seven developed parks (Dow Alexander, Elizabeth Daniels, Glenn Jones, Minnie, Memorial, DeVere Mautino, and Condon and one underdeveloped park Morgan Ranch) within the City limits.

IMPACTS

- a) The project is not anticipated to have substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities; a need for new or physically altered governmental facilities; the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios; response times or other performance objectives for any of the public services. These impacts are considered less than significant.

The applicant will be required to pay the City's impact fees for residential development, including fees for police, fire and Quimby Act (park) fees. The fees collected by the City are used to augment fire, police, parks and other public facilities. Accordingly, impacts to fire protection, police protection, schools, parks, or other public facilities are considered less than significant impacts.

XV. RECREATION –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The City owns and maintains eight park/recreation facilities. These include three parks currently classified as “community parks”: Condon Park, Mautino Park, and Memorial Park. One of the eight parks, Morgan Ranch, is still undeveloped. In addition, the City contracts with Nevada County Historical Society to operate the Pelton Wheel Mining Museum/Glen Jones Park. An inventory of City owned/operated parks and recreation facilities include: Memorial Park, 8.4 acres; Condon Park, 80 acres; Pelton Wheel Mining Museum/Glen Jones Park, 1.7 acres; Brighton Street Park (Minnie Street), 1.6 acres; Elizabeth Daniels Park, 0.3 acres; Dow Alexander Park, 0.5 acres; Morgan Ranch Park, 4.08 acres; and Mautino Park, 12.5 acres.

Additional park/recreational facilities within the City of Grass Valley but owned and maintained by entities other than the City are: Nevada County Country Club, 58 acres; Sierra College fields, 7.95 acres; Hennessy School, 3 acres.

IMPACTS

- a)&b) The Heritage Oaks Phase II residential project is anticipated to generate twenty-nine (29) persons considering 14 single family dwellings and an average City of Grass Valley household of 2.04 persons. Per the Subdivision Map Act Section 66477 (B)(7), projects less than 50 lots are required to pay park impact fees. As noted, the project will be subject to City of Grass Valley development fees including Quimby Act (park) fees; however, the project is not anticipated to increase the use of existing neighborhood and regional parks, recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. The proposed project will not generate the need for additional park facilities.

A basketball hoop is located at the east end of the parking lot that will provide recreation opportunities for the local residents. These potential impacts are less than significant.

XVI. TRANSPORTATION/TRAFFIC –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

The project site is an infill commercial designated property adjoining residential and commercial development. The project site is access via Joyce Drive via South Auburn Street to the south and Whiting Street to the north.

Joyce Drive – Joyce Drive is a two-lane roadway with parking on one-side of the street and connects to Whiting Street to the east. The roadway serves Heritage Oaks Phase I and was improved to City standards on the north side of the street.

Whiting Street– Whiting Street is a north-south Collector Street with a two-lane roadway without parking on either side of the street. Whiting Street runs parallel to State Route 20/49 and connects to West Empire Street to the north and South Auburn Street to the south.

South Auburn Street – South Auburn Street is a north-south Arterial Street with parking on both sides of the street at various segments. South Auburn Street is the main arterial street connecting to Downtown Grass Valley to the north. South Auburn connects with East and West McKnight to the south.

IMPACTS

- a) The project would generate temporary construction traffic initially. However, this would be temporary and would not materially alter the traffic volumes along Joyce Drive, Whiting or S Auburn Streets or surrounding roadways.

The Heritage Oaks Phase II project would result in an increase in traffic near the project site resulting from the 14 single family dwellings. Based upon the trip generation rates identified in the *10th Edition of the Institute of Transportation Engineers (ITE)* transportation generation rates manual, trip generation rates for single family dwellings have an average of 9.44 trips per day, 0.74 trips in the a.m. peak hour and 0.99 trips in the p.m. peak hour. Based upon these estimates, the project would generate: 132 daily trips, 10 a.m. peak hour trips, and 14 p.m. peak hour trips.

Per the City's Guidelines for Traffic Impact Studies, the City requires a Traffic Impact Study when a specific project exceeds 63 p.m. peak hour trips. The above trip generation rates for the project above p.m. peak trips are below the threshold of 63 p.m. peak hour trips that would require a traffic study by the City of Grass Valley. Considering that the project site was included in the traffic analysis provided by the General Plan and General Plan EIR with a commercial designation (which is generally higher), these vehicle trips have been anticipated in the cumulative impact totals of the General Plan buildout and accounted for in the Levels of Service analysis on Whiting and S Auburn Streets, nearby roadways and intersections.

The applicant will be subject to the payment of AB 1600 traffic mitigation fees, (i.e. City of Grass Valley and regional traffic impact fees) which is the acceptable form of traffic mitigation for this type of infill project. These fees are used exclusively for projects identified in the City's Capital Improvement Program to finance needed infrastructure improvements to achieve the LOS anticipated with the City's 2020 General Plan.

The project will not cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system. This impact is considered less than significant.

- b) Levels of Service are estimated for future travel conditions to ensure that a roadway will provide acceptable operations for its "design life", which is commonly 20 years.

For the General Plan, the year 2020 is used for estimating traffic demand and determining Levels of Service on the roadway system. The City has established Level of Service "D" at the p.m. peak hour as the goal for both the General Plan and for the development of Citywide and regional traffic impact fees. LOS D is defined as "significant congestions of critical approaches but intersection is functional."

According to the City's General Plan Circulation Element, an analysis of roadway improvements needed to maintain a Level of Service "D" standard in the year 2020 has been determined using the growth assumptions of the General Plan and the Nevada County Transportation Planning Agency (NCTPA) sub-region travel demand model.

The intersections in the project vicinity have adequate levels of service including South Auburn Street and Whiting. Implementation of the General Plan Circulation Element, Capital Improvement Program and construction of the improvement projects included in the General Plan will ensure satisfactory Levels of Service at all of the project intersections.

For smaller projects such as Heritage Oaks Phase II, the City intends to mitigate any roadway deficiencies through the collection of local and regional impact fees to finance its Capital Improvement Program. The City of Grass Valley collects development impact fees prior to building permit issuance to fund their Capital Improvement Program. The mitigation fee programs ensure that future development will pay their fair share of traffic impact fees to partially fund the construction of planned transportation improvements identified in the City's Capital Improvement Program. These impacts are less than significant.

- c)-d) The project is located approximately 2 miles from the Nevada County Airport and outside of the airport influence. Due to the distance between the Nevada County Airport and project, the project will not result in a change in location that results in substantial safety risks. No impact will occur.

The project will not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses such as farm equipment. No impact will occur.

- e) The project has been reviewed by the City of Grass Valley Fire Department for emergency response. The project has been determined by the Fire Department to be in compliance with the City of Grass Valley fire standards and City Development Code. Therefore, potential impacts relating to emergency access are considered less than significant.
- f) The Heritage Oaks Phase II project is required to comply with the City's Development Code, which requires two off-street parking spaces for each residence, with at least 1 covered. Tandem parking is not permitted.

The residential home designs include one and two car garages for off street parking. To comply with the City's Development Code, the proposed one car garages will be required to have a paved area of nine feet by eighteen (9x18) feet, outside of the front yard setback, to satisfy the required parking. Due to the size of the lots, adequate off-street parking should not be at issue.

Additionally, a 13-space parking lot is proposed east of Lots 13 and 14. The parking lot will serve both Heritage Oaks Phase I and II. The parking lot will be maintained by the Heritage Oaks HOA.

- g) The project is an infill residential site that is in accordance with adopted policies, plans, or programs supporting alternative transportation (i.e. bus turn-outs, bicycle racks) thereby resulting in a positive impact. No impact will occur.

XVII. UTILITIES AND SERVICE SYSTEMS –

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

The Heritage Oaks Phase II property consists of grass covered pasture type areas with natural slopes of varying gradients of 4-15%. Generally, offsite and onsite storm runoff consist of sheet flow

Drainage inlets, storm drain, manholes, etc. Runoff from the proposed residences will exit roof downspouts into small infiltration trenches prior to discharge to the existing natural drainage course. Runoff from pavement area is conveyed along curb and gutter to one of two storm drain inlets with deepened sumps for retention and infiltration. Storm water is further conveyed through new storm drain and ultimately will enter a "Stormceptor" manhole for removal of potential pollutants prior to discharge into a new Bio-Swale, then conveyed to a new retention pond allowing infiltration and removal of potential pollutants prior to discharge to the adjacent natural drainage course. The existing 12-inch culvert crossing Joyce Drive presently will be removed and replaced with a new 24-inch culvert to improve the hydraulic capacity of the culver crossing. Stormwater

runoff from the portion of Joyce Drive on the south side of centerline, or “crown” of Joyce Drive will sheet flow through a vegetative buffer strip, reducing velocities, allowing infiltration and removal of potential pollutants prior to discharge to the adjacent natural drainage course. All drainage facilities are designed to accommodate the required storm events in accordance with the City of Grass Valley requirements.

Solid waste within the project area is collected by Waste Management, a licensed private disposal company. Solid waste is transported to the company’s transfer station located on McCourtney Road.

Domestic water service to the proposed development is provided by the City of Grass Valley via existing water lines that were installed following development in the project area. According to the General Plan EIR, water supplies are sufficient to supply growth anticipated in the General Plan, which included the Heritage Oaks Phase II project site.

Sewage collection is provided by the City of Grass Valley via existing sewer lines along Joyce Drive. According to the General Plan EIR, sewage collection facilities are sufficient to supply growth anticipated in the General Plan, which included the project site.

IMPACTS

- a)&b) The project will not exceed wastewater treatment requirements by the Regional Water Quality Control Board or result in the need to construct new water or wastewater treatment facilities.

Internal infrastructure improvements, including wastewater sewer are proposed with the project, in accordance with City standards. However, the wastewater generated by the project is not anticipated to cause significant environmental effects. These impacts are considered less than significant.

- c) A preliminary drainage study has been prepared for the project by *SCO Planning & Engineering dated November 2019*. According to the drainage study, on-site drainage will be collected in a new drainage system containing drainage inlets, storm drain, natural drainage and detention features. All drainage facilities will be designed to accommodate the required storm events in accordance with City of Grass Valley Design Standards. These impacts are considered less than significant.
- d) The City’s water system serves approximately, sixty (60%) of the incorporated City of Grass Valley and is located at 808 Alta Vista Avenue. The City’s service area is 1,357 acres, approximately 2.1 square miles, with a service area population of 5,855. As an infill site, water supplies are sufficient to serve the proposed development. This impact is considered less than significant.
- e)-g) New sewer connections are proposed with the project and will be served via the extension of existing utilities along Joyce Drive.

Sewer Connection Fees are collected with the issuance of a building permit or at a request to connect to the City's sewer system. Sewer service connection fees for new development are currently due at the time of building permit issuance.

The proposed project will be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. This impact is considered less than significant.

The proposed project will comply with federal, state, and local statutes and regulations related to solid waste. This impact is considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –				
Would the project:				
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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) As discussed in Section IV, Biological Resources, of this IS/MND, implementation of the proposed project is not expected to have the potential to result in adverse effects to special-status plant and wildlife species. Additionally, while unlikely, the project could result in impacts related to eliminating important examples of California History or Pre-history associated with undiscovered archeological and/or paleontological resources during project construction. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less than significant levels. With implementation of the mitigation measures outlined in this IS/MND, as well as compliance with General Plan policies these potential impacts are less than significant.				

- b) The proposed project, in conjunction with other development within the City of Grass Valley, could incrementally contribute to cumulative impacts in the area. In particular, related emissions of NOX, potentially resulting in a cumulatively considerable contribution to the region's existing air quality conditions. However, a mitigation measure for the aforementioned potential impact identified for the proposed project in this IS/MND has been included that would reduce the project's cumulative impact would be less than significant.
- c) As described in this IS/MND, implementation of the proposed project could result in temporary impacts related to air quality and excess noise levels. In addition, the project could expose humans to hazards relating to seismic ground shaking and unstable geologic units. However, the proposed project would be required to implement the project-specific mitigation measures within this IS/MND. Therefore, the proposed project's impact would be less than significant.

REFERENCES The following references used in preparing this report have not been attached to this report. The reference material listed below is available for review upon request of the Grass Valley Community Development Department, 125 East Main Street, Grass Valley, CA 95945.

- City of Grass Valley 2014-2019 Housing Element
- Preliminary Drainage Study Prepared by SCO Planning & Engineering dated November 2019
- City of Grass Valley 2020 General Plan and General Plan EIR
- City of Grass Valley Historic 1872 Townsite
- City of Grass Valley Development Code
- U.S. Department of Agriculture
- CA Department of Forestry and Fire Prevention
- City of Grass Valley Municipal Code
- Preliminary Geotechnical Report Prepared by Holdrege & Kull dated June 2, 2005
- Biological Inventory Prepared by Greg Matuzak, Biological Consultant dated June 2019
- Nevada County General Plan
- North Central Information Center
- Native American Heritage Commission
- United Auburn Indian Community
- City of Grass Valley Energy Action Plan
- Office of Planning and Research
- State Geotracker, Environstar and Department of Conservation websites
- Nevada County Airport Land Use Compatibility Plan
- City of Grass Valley Grading Ordinance
- Mineral Management Element of the City's General Plan, dated August 24, 1993
- Background Report, City of Grass Valley General Plan Update, November 1998
- Soil Survey of Nevada County, United States Department of Agriculture, Soil Conservation Service
- Flood Insurance Rate Map 06057C0632E dated February 3, 2010
- On line soil survey maps and data from USDA - <http://websoilsurvey.nrcs.usda.gov>
- Air Quality and Greenhouse Gas Impacts Analysis Prepared by City of Grass Valley
- City of Grass Valley Capital Improvement Program
- Resource Management Plan Prepared by Greg Matuzak, Biological Consultant dated June 2019

EXHIBITS

- Exhibit A** - Vicinity Map
- Exhibit B** - Aerial Photograph
- Exhibit C** - Site Photographs
- Exhibit D** - Gilded Springs Tentative Subdivision Map
- Exhibit E** - Heritage Oaks Phase II Tentative Subdivision Map
- Exhibit F** - Home Designs/Floor Plans

TABLES

- Table 1** - Project Construction and Operational Emissions Estimates
- Table 2** - Summary of Long-Term Ambient Noise Monitoring Results
- Table 3** - Predicted Future Exterior Traffic Noise Levels
- Table 4** - Traffic Noise Barrier Analysis Results - SR 49

FIGURES

- Figure 2** - Recommended Noise Barrier