ENVIRONMENTAL INITIAL STUDY

INITIAL STUDY CHECKLIST
References and Documentation
Signature Northwest Development Corporation
Paul Edgren, President
Use Permit Application UP-2019-01344
Grading Permit Application GRAD-2016-00026

Prepared by:
CITY OF REDDING
Development Services Department
Planning Division
777 Cypress Avenue
Redding, California 96001

August 16, 2019

CITY OF REDDING
ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Signature Northwest Development Corporation Grading Permit GRAD-16-00026

2. **Lead agency name and address:**

   CITY OF REDDING
   Development Services Department
   Planning Division
   777 Cypress Avenue
   Redding, CA 96001

3. **Contact Person and Phone Number:** Zach Bonnin – City of Redding, 530-245-7112

4. **Project Location:** 1655 Canyon Creek Road, Redding CA 96001 in Shasta County

5. **Applicant's Name and Address:** Signature Northwest Development Corporation, 1822 Buenaventura Blvd, Redding, CA 96001
   Representative's Name and Address: Paul Edgren, President 1822 Buenaventura Blvd, Redding, CA 96001

6. **General Plan Designation:** "General Commercial" and "Greenway"

7. **Zoning:** "GC-OS" General Commercial and Open Space Districts

8. **Description of Project:** The applicant is proposing to grade a building pad within the regulated 100-year floodplain, using fill material. The project also includes the placement of a stockpile that would be removed prior to development of the site.

9. **Surrounding Land Uses and Setting:** The site is located at the corner of Buenaventura Blvd. and Canyon Creek Road. Canyon Creek flows through the site and was designated as an Open Space Greenway as part of a larger subdivision development. A small portion of the land on the corner is zoned commercial and is out side of the creek corridor. This area was disturbed and graded in the past in order to construct the adjacent subdivision; fill material was left mounded in places and little to no riparian vegetation exists on the proposed pad.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? Yes if so, has consultation begun? No response.**

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 or Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

	Aesthetics		Agricultural and Forestry Resources		Air Quality
	Biological Resources		Cultural Resources		Energy

	Geology / Soils		Greenhouse Gas Emissions		Hazards & Hazardous Materials
	Hydrology / Water Quality		Land Use / Planning		Mineral Resources
	Noise		Population / Housing		Public Services
	Recreation		Transportation		Tribal Cultural Resources
	Utilities / Service Systems		Wildfire		Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation:

X 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 of NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Development Services Department, 777 Cypress Avenue, Redding, CA 96001. Contact Zach Bonnin at (530) 245-7112.

For Zach Bonnin, Associate Planner
Development Services Department

August 16, 2019

EVALUATION OF ENVIRONMENTAL IMPACTS:

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

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

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the State *CEQA Guidelines* and used by the City of Redding in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.

- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- **Potentially Significant Impact Unless Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- **Potentially Significant Impact.** The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

Prior environmental evaluations applicable to all or part of the project site:

- *City of Redding General Plan*, 2000
- *City of Redding General Plan Final Environmental Impact Report*, 2000, SCH #1998072103

List of attachments/references:

Attachment A – Grading Plan
Attachment B – Hydrology Study by Pacific Hydrologic Incorporated, 2016

SUMMARY OF MITIGATION MEASURES:

I. **AESTHETICS:** *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				x
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				x
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that area experienced from publically accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				x
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				x

Discussion:

a) The proposed project would not represent a significant change to the overall scenic quality of the area, as the area has been previously disturbed and the grading will not significantly alter the existing condition.

b) The project site is not located adjacent to a state-designated scenic highway.

c) The project will be compatible with the existing visual character of the property and its surroundings.

d) The project would not generate any light as it is only grading and will comply with the Zoning Ordinance light standards. There would not be an adverse effect on day or nighttime views in the area.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding Zoning Ordinance, Chapter 18.40.090

Mitigation:
None necessary.

II. **AGRICULTURE RESOURCES:** *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural, Land Evaluation and Site Assessment Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided bin Forest Protocols adopted by the California Air Resources Board. Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact

II. AGRICULTURE RESOURCES: *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural, Land Evaluation and Site Assessment Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided bin Forest Protocols adopted by the California Air Resources Board. Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or 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?				x
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				x
c) Conflict with existing zoning for, or cause rezoning to, 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 51101(g).				x
d) Result in the loss of forest land or conversion of forest land to non-forest use?				x
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?				x

Discussion:

a-e) the project site has not been historically used for agricultural purposes, nor does it possess soils that are prime for agricultural production.

Documentation:

City of Redding General Plan, Natural Resources Element, 2000
City of Redding General Plan Background Report, Chapter 9.4: Agricultural Lands
California Department of Conservation's Farmland Mapping and Monitoring Program
United States Department of Agriculture, Soil Conservation Service and Forest Service, Soil Survey of Shasta County Area.

Mitigation:

None necessary.

III. AIR QUALITY: *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:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) 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				X
c) Expose sensitive receptors to substantial pollutant concentrations?				X

III. AIR QUALITY: *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:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X

Discussion:

a-c) Shasta County, including the far northern Sacramento Valley, currently exceeds the state's ambient standards for ozone (smog) and particulates (fine, airborne particles). Consequently, these pollutants are the focus of local air quality policy, especially when related to land use and transportation planning. Even with application of measures to reduce emissions for individual projects, cumulative impacts are unavoidable when ozone and/or particulate emissions are involved. For example, the primary source of emissions contributing to ozone is from vehicles. Any project that generates vehicle trips has the potential of contributing incrementally to the problem. The Environmental Impact Report for the *General Plan* acknowledged this dilemma; and as a result, Findings and a Statement of Overriding Considerations were adopted by the City Council for impacts to air quality resulting from growth supported under the *General Plan*.

The City Air Quality Element of the *General Plan* establishes emission-reduction goals of 20 to 25 percent, depending on the projected level of unmitigated emissions for a project. Mitigation thresholds are established for the important regional/local pollutants, including: Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOx), which are ozone precursors, and Inhalable Particulate Matter, 10 Micron (PM_{10}). The mitigation thresholds for these pollutants are tiered at two levels as follows:

Level "A"	**Level "B"**
25 pounds per day of NOx	137 pounds per day of NOx
25 pounds per day of ROG	137 pounds per day of ROG
80 pounds per day of PM_{10}	137 pounds per day of PM_{10}

The project has an unmitigated emissions level less than the Level "A" threshold, therefore it is viewed as a minor project (from an air quality perspective) and only application of Standard Mitigation Measures (SMMs) is required to try to achieve at least a 20 percent reduction in emissions, or the best reduction feasible otherwise.

c) Potential impacts to neighboring homes (sensitive receptors) from fugitive dust caused during construction are mitigated by application of the SMMs discussed above.

d) The project does not involve land use that could generate objectionable odors affecting substantial number of people.

Documentation:
Shasta County APCD Air Quality Maintenance Plan and Implementing Measures
City of Redding General Plan, Air Quality Element
City of Redding General Plan Final Environmental Impact Report, 2000, SCH #1998072103, Chapter 8.6, Air Quality,
CEQA Findings of Fact and Statement of Overriding Considerations for the *City of Redding General Plan Final Environmental Impact Report*, as adopted by the Redding City Council on October 3, 2000, by Resolution 2000-166
City of Redding General Plan Background Report, Chapter 9.7, Natural Resources and Air Quality

Mitigation:
None necessary.

IV. BIOLOGICAL RESOURCES: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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 Wildlife or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
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?				X
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?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Discussion:

a-d) The project site is located adjacent to Canyon Creek but has been disturbed in recent historical times with major gold dredging activity and later with the development of an adjacent subdivision.. A biological Screening Evaluation letter was prepared by John Luper of Enplan, dated August 25, 2017. The previous disturbance onsite has eliminated most preexisting natural vegetation and the pad currently consists of grasses and forbs that have grown on the fill material. The additional fill material to be stockpiled on the site will be placed on this disturbed pad and eventual spread over the pad to raise the height of the pad outside of the floodplain. The grading is designed to remove the old dredger tailing piles and use some of the fill to raise the pad but also remove obstructions in the floodplain created by the dredging activity. This grading will restore the natural floodplain so that flows at high water will flow more freely. The grading disturbance near the creek will likely require a Fish and Wildlife permit to disturb the riparian area adjacent to the creek.

The natural oak woodland on-site provides attractive habitat for nesting and migratory birds. All the trees on the project site are located within the open space and will be preserved and will not be impacted from the project activity.

f) No habitat conservation plans or other similar plans have been adopted for the project site or project area. No impact would occur in this regard.

Documentation:

California Department of Fish and Wildlife: Natural Diversity Data Base
City of Redding General Plan, Natural Resources Element, 2000
City of Redding Municipal Code, Chapter 18.45, Tree Management Ordinance
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103

Mitigation:
None necessary.

V. CULTURAL RESOURCES: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				X
c) Disturb any human remains, including those interred outside of dedicated cemeteries?				X

Discussion

a-c) Based upon archaeological reports, records searches, and information contained in the *General Plan* EIR pertinent to the vicinity of the subject property, it has been determined that the project site is not in an area of archaeological or cultural sensitivity. No impacts in this area are anticipated.

Documentation:
City of Redding General Plan Background Report, 1998
City of Redding General Plan Final Environmental Impact Report, 2000, SCH #1998072103

Mitigation:
None necessary.

VI. Energy: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				X
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Discussion

a) The project consists of a standard grading operation to create a building pad; the grading will be done with standard earth moving equipment and will not be a wasteful or inefficient use of resources.

b) The project will not conflict with any state or local plans for energy efficiency as the project only consists of grading.

Mitigation:
None necessary.

VII. GEOLOGY AND SOILS: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 Publications 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
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?				x
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				x
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?				x
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				x

Discussion:

a, c, d) There are no Alquist-Priolo earthquake faults designated in the Redding area of Shasta County. There are no other documented earthquake faults in the immediate vicinity that pose a significant risk, and the site is located in an area designated in the Health and Safety Element of the *General Plan* as having a low ground-shaking potential. The project is not located on or near any documented landslide hazard areas, and there is no evidence of ground slippage or subsidence occurring naturally on the site. The type of soils and underlying geology is identified as having no potential for liquefaction. No portion of the site falls within the 100-year floodplain of the Sacramento River or any creek.

b) The project is subject to certain erosion-control requirements mandated by existing City and State regulations. These requirements include:

- *City of Redding Grading Ordinance.* This ordinance requires the application of "Best Management Practices" (BMPs) in accordance with the City Erosion and Sediment Control Standards Design Manual (Redding Municipal Code Section 16.12.060, Subsections C, D, and E). In practice, specific erosion-control measures are determined upon review of the final project improvement plans and are tailored to project-specific grading impacts.
- *California Regional Water Quality Board "Construction Activity Storm Water Permit."* This permit somewhat overlaps the City's Grading Ordinance provision by applying state standards for erosion-control measures during construction of the project.

- *California Regional Water Quality Control Board "Project Storm Water Pollution Prevention Plan (SWPPP)."* This plan emphasizes stormwater best management practices and is required as part of the Construction Activity Storm Water Permit. The objectives of the SWPPP are to identify the sources of sediment and other pollutants that affect the quality of stormwater discharges and to describe and ensure the implementation of practices to reduce sediment and other pollutants in stormwater discharges.
- *California Department of Fish and Wildlife "1600 Agreement."* This notification is required for any work within a defined streambed and will be applicable to impacts to Canyon Creek.

Actions for compliance with these regulations are addressed under standard conditions of approval, which are uniformly applied to all land development projects. Since the project is subject to uniformly applied ordinances and policies and the overall risk of erosion is low, potential impacts related to soil erosion and sedimentation are less than significant.

d) The proposed project does not involve the use of septic tanks or alternative wastewater disposal. No impact has been identified.

e) The project will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, because the site has been previously disturbed and no features have been identified on the site.

Documentation:
City of Redding Health and Safety Element, figures 4-1 (Ground Shaking Potential) and 4.2 (Liquefaction Potential)
City of Redding General Plan Final Environmental Impact Report
City of Redding General Plan Background Report, 1998
City of Redding Grading Ordinance, RMC Chapter 16.12
City of Redding Standard Specifications, Grading Practices
City of Redding Standard Development Conditions for Discretionary Approvals (subdivisions, use permits, site development permits, etc.)
Soil Survey of Shasta County Area, United States Department of Agriculture, Soil Conservation Service and Forest Service, August 1974
Division of Mines and Geology Special Publication 42
State Regional Water Quality Control Board, Central Valley Region, Regulations related to Construction Activity Storm Water Permits and Storm Water Pollution Prevention Plans

Mitigation:
None necessary.

VIII. GREENHOUSE GAS EMISSIONS: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				**X**
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				**X**

Discussion:

a-b) In 2005, the Governor of California signed Executive Oder S-3-05, establishing that it is the State of California's goal to reduce statewide greenhouse gas (GHG) emission levels. Subsequently, in 2006, the California State Legislature adopted Assembly Bill AS 32, the California Global Warming Solutions Act. In part, AB 32 requires the California Air Resources Board to develop and adopt regulations to achieve a reduction in the State's GHG emissions to year 1990 levels by year 2020.

California Senate Bill SB97 established that an individual project's effect on GHG emission levels and global warming must be assessed under CEQA. SB97 further directed that the State Office of Planning and Research (OPR) develop guidelines for the assessment of a project's GHG emissions. Those guidelines for GHG emissions were subsequently included as amendments to the CEQA Guidelines. The guidelines did not establish thresholds of significance and there are currently no state, regional, county, or city guidelines or thresholds with which to direct project-level CEQA review. As a result, the City of Redding has utilized the best available information

to develop a threshold until a specific quantitative threshold is adopted by the state or regional air district.

As the Lead Agency, the City has opted to utilize a quantitative non-zero project-specific threshold using a methodology recommended by the California Air Pollution Officers (CAPCOA) and accepted by the California Air Resources Board. According to CAPCOA's *Threshold 2.3, CARB Reporting Threshold,* 10,000 metric tons of carbon-dioxide equivalents per year (mtCO2eq/yr.) is recommended as a quantitative non-zero threshold. According to the CAPCOA, this threshold would be equivalent to 550 dwelling units, 400,000 square feet of office use, 120,000 square feet of retail, or 70,000 square feet of supermarket use. This approach is estimated to capture over half the future residential and commercial development projects and is designed to support the goals of AB 32 and not hinder it.

The United States Environmental Protection Agency (EPA) identifies four primary constituents that are most representative of the GHG emissions. They are:

- **Carbon Dioxide (CO_2):** Emitted primarily through the burning of fossil fuels. Other sources include the burning of solid waste and wood and/or wood products and cement manufacturing.
- **Methane (CH_4):** Emissions occur during the production and transport of fuels, such as coal and natural gas. Additional emissions are generated by livestock and agricultural land uses, as well as the decomposition of solid waste.
- **Nitrous Oxide (N_2O):** The principal emitters include agricultural and industrial land uses and fossil fuel and waste combustion.
- **Fluorinated Gases:** These can be emitted during some industrial activities. Also, many of these gases are substitutes for ozone-depleting substances, such as CFC's, which have been used historically as refrigerants. Collectively, these gases are often referred to as "high global-warming potential" gases.

The primary generators of GHG emissions in the United States are electricity generation and transportation. The EPA estimates that nearly 85 percent of the nation's GHG emissions are comprised of carbon dioxide (CO_2). The majority of CO_2 is generated by petroleum consumption associated with transportation and coal consumption associated with electricity generation. The remaining emissions are predominately the result of natural-gas consumption associated with a variety of uses. With regard to the project, the predominant associated GHG is CO_2 generated by construction vehicles grading the site.

On a larger scale, the City of Redding's General Plan acknowledges that land use decisions have an impact on climate and air quality. Land use decisions that result in low or very low density on the periphery of the community increase the amount of vehicle-miles traveled (VMT), which increases vehicle emissions. In response to this impact, the City's *General Plan* includes a number of goals and policies in the Community Development and Design Element, Transportation Element, and Housing Element that promote a compact urban form and encourage infill development, advocate higher housing density, and ensure connectivity to citywide bikeways and pedestrian plans. The goal of these policies is to reduce VMT, which also reduces emissions and reduces a wide variety of air quality impacts. Since automobiles are considered a major source of GHG emission, each vehicle trip reduced also reduces GHG emissions.

[1] CPCOA website, July 19, 2010
[2] California Office of the Attorney General, "The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level," updated May 21, 2008.

Documentation:
City of Redding General Plan, 2000

Mitigation:
None necessary.

IX. HAZARDS AND HAZARDOUS MATERIALS: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
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?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g)_ Expose people or structures, either or indirectly, to a significant risk of loss, injury, or death involving wildland fires?				X

Discussion:

a, b, c, d) The nature of the project as a grading for building pad does not present a significant risk related to hazardous materials or emissions. There is no documented hazardous material sites located on or near the project.

e) The project is located outside the established approach/departure clear zones for Redding Municipal Airport. The project's land use of low-density residential would not conflict with operations of the Airport or present a safety hazard to people residing in the subdivision.

f) The project does not involve a use or activity that could interfere with emergency-response or emergency-evacuation plans for the area.

g) The project site does not have a wildland fire-hazard potential. The site has been disturbed in the past and is surrounded primarily by developed residential and commercial lots.

Documentation:
City of Redding General Plan, Health and Safety Element, 2000

Mitigation:
None necessary.

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

Discussion:

a) Since the project would be served by City sanitary sewer service, the project would not involve any permitted discharges of waste material into ground or surface waters.

b) The project would utilize City water service for domestic uses and fire protection. The proposed project would not impact groundwater supplies.

c) The project is subject to standard requirements defined under Section VI., *Geology and Soils*, and mitigation measures (if any) under Section IV., *Biological Resources*, above that minimize the potential for erosion or siltation on- or off-site. The final improvement plans for the project must also incorporate specific design measures intended to limit pollutant discharges in stormwater from urban improvements as established under the State's National Pollutant Elimination System (NPDES) general permit, which the City is now obligated to follow in accordance with State Water Quality Control Order No. 2003-0005-DWQ. Feasible Best Management Practices (BMPs) would be incorporated in the final design of the project's storm-drain system, as approved by the City Engineer, based on the BMPs listed in the latest edition of the California Storm Water Quality Association Storm Water Best Management Practices

Handbook.

Cii and Ciii) City of Redding Policy 1806 requires that all subdivision development include stormwater detention facilities designed to maintain existing predevelopment rates of runoff during a 10-, 25-, and 100-year storm event with a 6-hour duration. The project application includes a hydrology analysis prepared by Pacific Hydrologic Incorporated and dated Sept. 21, 2016 that concludes that the placement of fill on the designated areas will not have a substantial impact on the floodplain and that by removing existing impediments in the floodplain, will equalize flows along Canyon Creek in flood scenarios.
Civ) According to FEMA, the identified 100-year floodplain for Canyon Creek crosses the property and varies in elevation throughout the area proposed for the new building pad. In order to elevate future buildings one foot above the 100-year floodplain, as required by the City of Redding floodplain ordinance, it is necessary to bring fill material onto the site to elevate the building pad. In addition, the applicant will complete a Letter of Map Revision based on Fill through FEMA to remove individual structures from the special flood-hazard area. The applicants' hydrologist has calculated the effects of bringing fill onto the site with a HEC-1 model. The study was verified by the City's hydrologist and agrees with the conclusion that the encroachment into the floodplain will have a negligible impact on the base flood elevation at the site and upstream of the site.

d) The threat of a tsunami wave is not applicable to inland, central valley communities such as Redding. Seiches could potentially be generated in either Shasta or Whiskeytown Lakes during an earthquake. However, neither lake has been identified in the Health and Safety Element of the General Plan as having any risk to the City under such circumstances. There is no documented threat of mudflows affecting the project site.

e) The project will not conflict with any water quality control plans as the project is subject to standard City of Redding policies associated with a grading or development project. The City also requires developers to comply with standard State regulations including the requirements to file a Storm Water Pollution Prevention Plan (SWPPP) prior to issuance of any grading permit. These permits and plans confirm the application of best practices to minimize risk of impacts to water quality associated with grading.

Documentation:
City of Redding General Plan Background Report, Chapter 10, Health and Safety Element, 1998
City of Redding Storm Drain Master Plan, Montgomery-Watson Engineers 1993

Mitigation:
None necessary.

XI. LAND USE AND PLANNING: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Discussion:

a) The project does not have the potential to physically divide an established community.

b) The project is compatible with the applicable policies and regulations of the City General Plan and Zoning Ordinance and is not in conflict with any other Plan adopted by a jurisdictional agency for the purpose of avoiding or mitigating an environmental effect.

There is no habitat conservation or natural community conservation plans that are applicable to the site.

Documentation:
City of Redding General Plan, Community Development Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding General Plan, Natural Resources Element, 2000

Mitigation:
None necessary.

XII. MINERAL RESOURCES: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**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?				X
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?				X

Discussion:

a, b) The project site is not identified in the General Plan as having any known mineral-resource value or as being located within any "Critical Mineral Resource Overlay" area.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000

Mitigation:
None necessary.

XIII. NOISE: *Would the project result in:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Generation of excessive ground-borne vibration or ground-borne noise levels?				X
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Discussion:

a, b, c) The project site is located on Canyon Creek Road.

During the construction of the proposed project, there will be a temporary increase in noise in the project vicinity above existing ambient noise levels. The most noticeable construction noise will be related to grading, utility excavation, and land-clearing activity. The City's Grading Ordinance (RMC Chapter 16.12.120.H) limits grading-permit-authorized activities to between the hours of 7:00

a.m. and 7:00 p.m., Monday through Saturday. No operations are allowed on Sunday. Since heavy construction work associated with the project is limited in scope and by existing regulation, the anticipated noise impact to neighboring residents is considered less than significant.

c) The project site is not located within any of the noise contours of Benton Airport and is located approximately two miles away. There are no private airstrips in the vicinity of the project site.

Documentation:
City of Redding General Plan, Noise Element, 2000
City of Redding Grading Ordinance Redding Municipal Code, Section 16.12.120
City of Redding General Plan, Transportation Element, 2000
City of Redding Zoning Ordinance Redding Municipal Code, Section 18.40.100
City of Redding Municipal Airport Area Plan

Mitigation:
None necessary.

XIV. POPULATION AND HOUSING: *Would the project:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion:

a, b) The project would create opportunity for the construction of new retail development to serve housing as planned and anticipated by the Redding *General Plan*. As previously noted, the project is similar in character to that in the surrounding area. The project would not induce unplanned population growth and does not propose the extension of any new roads or utilities not anticipated by the *General Plan*. The project does not displace substantial numbers of people or substantial numbers of existing housing.

Documentation:
City of Redding General Plan, Housing Element, 2014

Mitigation:
None necessary.

XV. PUBLIC SERVICES: *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:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
Fire Protection?				X
Police Protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Discussion:
Fire and Police Protection:

The City would provide police and fire protection to the project from existing facilities and under existing service levels. The size of the project would not mandate the need for additional police or fire facilities.

The project is subject to Chapter 16.20 of the Redding Municipal Code, which requires new development to pay a citywide fire facilities-impact fee calculated to mitigate a project's fair share of cumulative impacts to the City's fire-protection infrastructure based upon improvements necessary to accommodate new development under the City's *General Plan*.

Schools:
The project is located in the Redding Elementary School District and Shasta High School District and will not contribute to the total student enrollment in these districts. However, a school-facility impact (in-lieu) fee exists, as provided under State law that is paid prior to the issuance of a building permit for each residential unit to address school-facility funding necessitated by the effects of growth citywide.

Parks:
The project will not cause a physical deterioration of an existing park facility or cause an adverse physical impact associated with a new park facility. The project is subject to Chapter 16.20 of the Redding Municipal Code, which requires new residential development to pay a citywide park and recreation-facilities impact fee calculated to mitigate a project's fair share of cumulative impacts to the City's parks and recreation infrastructure based upon improvements necessary to accommodate new development under the City's General Plan. See discussion under Item XVI (Recreation) below.

Other public facilities:
See discussion under Item XVIII (Utilities and Service Systems) below.

Documentation:
City of Redding General Plan, Public Facilities Element, 2000

Mitigation:
None necessary.

XVI. RECREATION:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				X
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?				X

Discussion:

a,b) The project will not cause a physical deterioration of an existing recreation facility or cause an adverse physical impact associated with a new recreation facility.

There would not be any potentially significant impacts to recreation associated with the project.

Documentation:
City of Redding General Plan, Natural Resources Element, 2000
City of Redding General Plan, Recreation Element, 2000
City of Redding General Plan, Public Facilities Element, 2000

Mitigation:
None necessary.

XVII. TRANSPORTATION/TRAFFIC: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?				X
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Discussion:

a, b) Access to the project would be derived from Canyon Creek Road. The Transportation Element of the *General Plan* establishes acceptable peak-hour "Level of Service" (LOS) criteria for roadways and intersections for use in transportation planning and project review. The LOS methodology is an established way of ranking the degree of traffic-flow efficiency and congestion. For most of the City, LOS "C" or "acceptable delay" is identified as the maximum allowable threshold before a more congested and potentially significant traffic condition occurs. For state highway interchange connections with local streets, a maximum LOS "D" or "tolerable delay" is established. A thorough explanation of LOS methodology is provided in the Transportation Element and the Transportation and Circulation Section of the *General Plan* Environmental Impact Report (EIR).

At the time development of the site is proposed, the project will be subject to Chapter 16.20 of the Redding Municipal Code, which requires new development to pay a citywide transportation development impact fee calculated to mitigate a project's fair share of cumulative impacts to the City's street- and traffic-control infrastructure based upon improvements necessary to accommodate new development under the City's *General Plan*.

c) The project access on Canyon Creek Road will have adequate site distance after a development is constructed on the proposed site.

d) The project will only provide access to one building pad off of the main road, which will be adequate to serve the site.

Documentation:
City of Redding General Plan, Transportation Element, 2000
City of Redding General Plan Environmental Impact Report, 2000, SCH #1998072103
City of Redding Parks, Trails, and Open Space Master Plan, 2002
City of Redding Traffic Impact Fee Program
City of Redding Bikeway Action Plan 2010–2015
Redding Area Bus Authority System Map and Route Guide, October 2000

Mitigation:
None necessary.

XVIII. TRIBAL CULTURAL RESOURCES: *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:*	**Potentially Significant Impact**	**Less-Than-Significant With Mitigation Incorporated**	**Less-Than-Significant Impact**	**No Impact**
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				**X**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				**X**

Discussion: a,b) The project is located on a site that has been previously disturbed by historical mining activity and grading associated with an adjacent subdivision. Due to these previous impacts the likelihood of any remaining resources located in the project disturbance area is very low. Any original site or feature has been altered beyond historical recognition.

Mitigation: None necessary.

XIX. UTILITIES AND SERVICE SYSTEMS: *Would the project:*	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities , the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) 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?				X
d) Generate solid waste in excess of state and local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.				X

Discussion:

a) The proposed grading does not generate the need for the construction of new water or wastewater-treatment facilities.

Project-related stormwater-management improvements consist of construction of collection and conveyance systems in accordance with City construction standards and City Policy 1806 pertaining to stormwater detention (also see IX, *Hydrology and Water Quality*, d and e).

b) Potable water is available from the City to serve the project with adequate pressure and flows for fire suppression. The demands of the project can be accommodated within the City's existing water resources.

c) The project will not necessitate the need for the City's sanitary sewer system to dispose of wastewater.

d) The project will not necessitate the need for solid waste disposal (curbside pick-up) service at this time.

e) The City of Redding solid waste collection policies comply with policies to achieve federal and state goals related to solid waste. The grading project will not have an effect on the solid waste goals.

Documentation:
City of Redding General Plan, Public Facilities Elements, 2000
City of Redding Water and Sewer Atlas

Mitigation:
None necessary.

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

Discussion:

a) The project as designed will not impair an adopted emergency response plan or emergency evacuation plan. The site will have adequate access on Canyon Creek Road, and will not impact the access of others utilizing that road as means of ingress or egress.

b) The City of Redding limits development on slopes over 20% in slope, and has general plan policy to limit wildfire risks, associated with new development. The project as proposed is a grading project and will not have an effect on wildfire risk, but may reduce some fuel load in the areas proposed to be graded.

c) The City of Redding requires that new development underground overhead utilities, and as part of the development the project will not be undergrounding utilities, because the project is only grading at this time, future development may include the undergrounding of utilities.

d) The project will not expose people to significant risks, as the City of Redding has policies in place to limit slope instability associated with new development.

Documentation:

City of Redding General Plan.

Mitigation:

None necessary.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below the 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?				X
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)?				X
c) Does the project have potential environmental effects which may cause substantial adverse effects on human beings, either directly or indirectly?				X

Discussion:

a) The project does not have the potential to degrade the quality of the environment, reduce or degrade wildlife habitat, or eliminate examples of history or prehistory.

b) As discussed in Item III, the project will contribute to region wide cumulative air quality impacts. However, under policy of the *General Plan*, application of Standard Mitigation Measures (SMMs) will eliminate the potential for air quality impacts from this project.

c) As discussed herein, the project does not have characteristics which could cause substantial adverse effects on human beings, either directly or indirectly.

Mitigation:
None Necessary