Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Planning file PLN200031 (4807 San Juan Canyon Road)

Lead Agency: San Benito County Resource Management Agency | Contact Person: Michael Kelly, Senior Planner
Mailing Address: 2301 Technology Parkway | Phone: 831 902-2287
City: Hollister | Zip: 95023-2513 | County: San Benito

Project Location: County: San Benito | City/Nearest Community: Unincorporated (near San Juan Bautista)
Cross Streets: San Juan Canyon Road near Hillside Road | Zip Code: 95045
Longitude/Latitude (degrees, minutes and seconds): 36 ° 47 ′ 53.67 ″ N / 121 ° 28 ′ 36.40 ″ W Total Acres: 122.62
Assessor's Parcel No.: 023-010-061 | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: | Waterways: San Juan Canyon Creek
Airports: | Railways: | Schools:

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☒ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Grading

Development Type:

☒ Residential: Units 3 Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☒ Other: 4,469 cubic yards of graded earth

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Agricultural Land ☒ Air Quality ☐ Archeological/Historical ☒ Biological Resources ☐ Coastal Zone ☐ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☐ Flood Plain/Flooding ☒ Forest Land/Fire Hazard ☐ Geologic/Seismic ☐ Minerals ☒ Noise ☐ Population/Housing Balance ☐ Public Services/Facilities
☐ Recreation/Parks ☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☐ Solid Waste ☐ Toxic/Hazardous ☐ Traffic/Circulation
☐ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☐ Wetland/Riparian ☐ Growth Inducement ☐ Land Use ☐ Cumulative Effects ☒ Other: Cultural, Tribal

Present Land Use/Zoning/General Plan Designation:

General Plan—Rural (R); Zoning—Rural (R)

Project Description: *(please use a separate page if necessary)*

The proposed Project would permit after the fact one building and driveways on the Project site. The currently existing building is constructed of three shipping containers, would cover 986 sf and contain one residence. The Project would also allow construction of a second building containing two dwellings and storage space. The proposed building would have a footprint of 4,000 sf and contain two levels: 4,000 sf of storage below and two apartments above. Grading associated with the Project would amount to 4,469 cu yd of cut material and 455 cu yd of fill and form two separate driveways and building sites. Most of the grading was completed without permits. Each building would stand at the end of each driveway, which together would total approximately 600 ft in length. Retaining walls would stand along the driveway to the new building and around the new building's footprint. The dwellings would be served by septic systems and well water. Much of the project has already been constructed without permits, with the shipping-container dwelling currently standing and grading for both buildings' sites already undertaken.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

____	Air Resources Board	____	Office of Historic Preservation
____	Boating & Waterways, Department of	____	Office of Public School Construction
____	California Emergency Management Agency	____	Parks & Recreation, Department of
____	California Highway Patrol	____	Pesticide Regulation, Department of
____	Caltrans District # ____	____	Public Utilities Commission
____	Caltrans Division of Aeronautics	X	Regional WQCB # 3
____	Caltrans Planning	____	Resources Agency
____	Central Valley Flood Protection Board	____	Resources Recycling and Recovery, Department of
____	Coachella Valley Mtns. Conservancy	____	S.F. Bay Conservation & Development Comm.
____	Coastal Commission	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	____	Santa Monica Mtns. Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	____	SWRCB: Water Quality
____	Energy Commission	____	SWRCB: Water Rights
X	Fish & Game Region # 4	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	____	Toxic Substances Control, Department of
X	Forestry and Fire Protection, Department of	____	Water Resources, Department of
____	General Services, Department of		
____	Health Services, Department of	____	Other: ____
____	Housing & Community Development	____	Other: ____
____	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date May 9, 2023 Ending Date June 7, 2023

Lead Agency (Complete if applicable):

Consulting Firm: ____
Address: ____
City/State/Zip: ____
Contact: ____
Phone: ____

Applicant: Kyle Wilson
Address: 805 Vertin Ave
City/State/Zip: Salinas, CA 93901
Phone: 831 236-4457

Signature of Lead Agency Representative: Michael Kelly **Date:** May 8, 2023

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

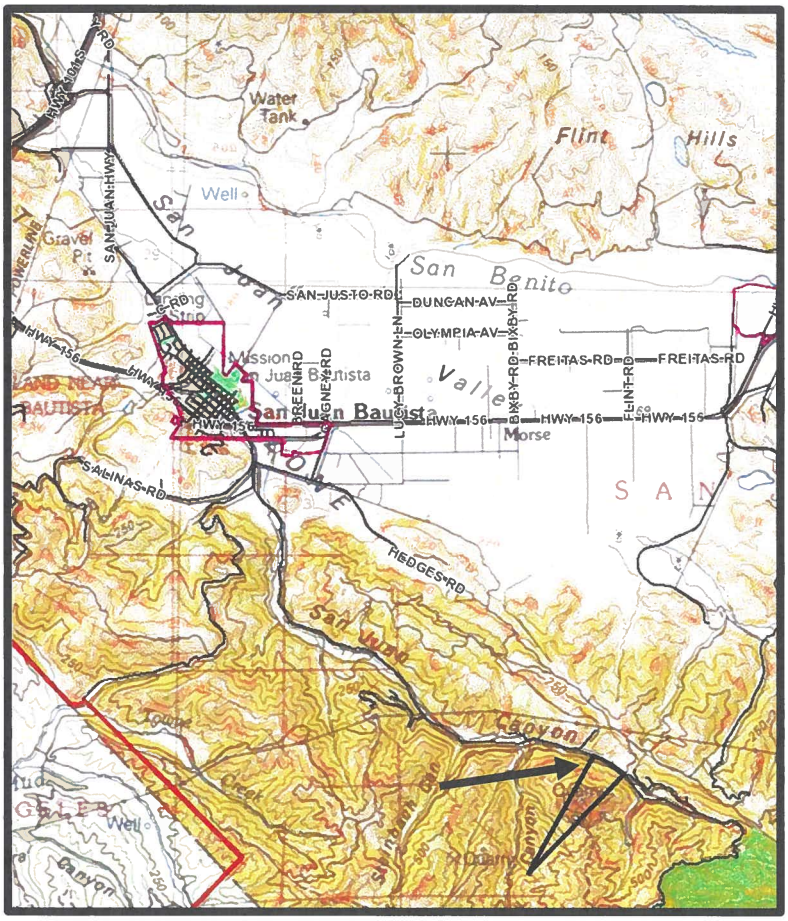
Notice of Intent to Adopt a Mitigated Negative Declaration and Notice of Availability for Public Review

TO: ☒ Interested Individuals
☒ San Benito County Clerk

FROM: San Benito County Resource Management Agency
2301 Technology Parkway
Hollister, CA 95023-2513

Contact Person: Michael Kelly, Senior Planner, 831 902-2287, *mkelly@cosb.us*
Project File No.: Planning file PLN200031 (4807 San Juan Canyon Road)
Project Applicant: Kyle Wilson
Project Location: 4807 San Juan Canyon Road, unincorporated San Benito County (Assessor's Parcel 023-010-061)

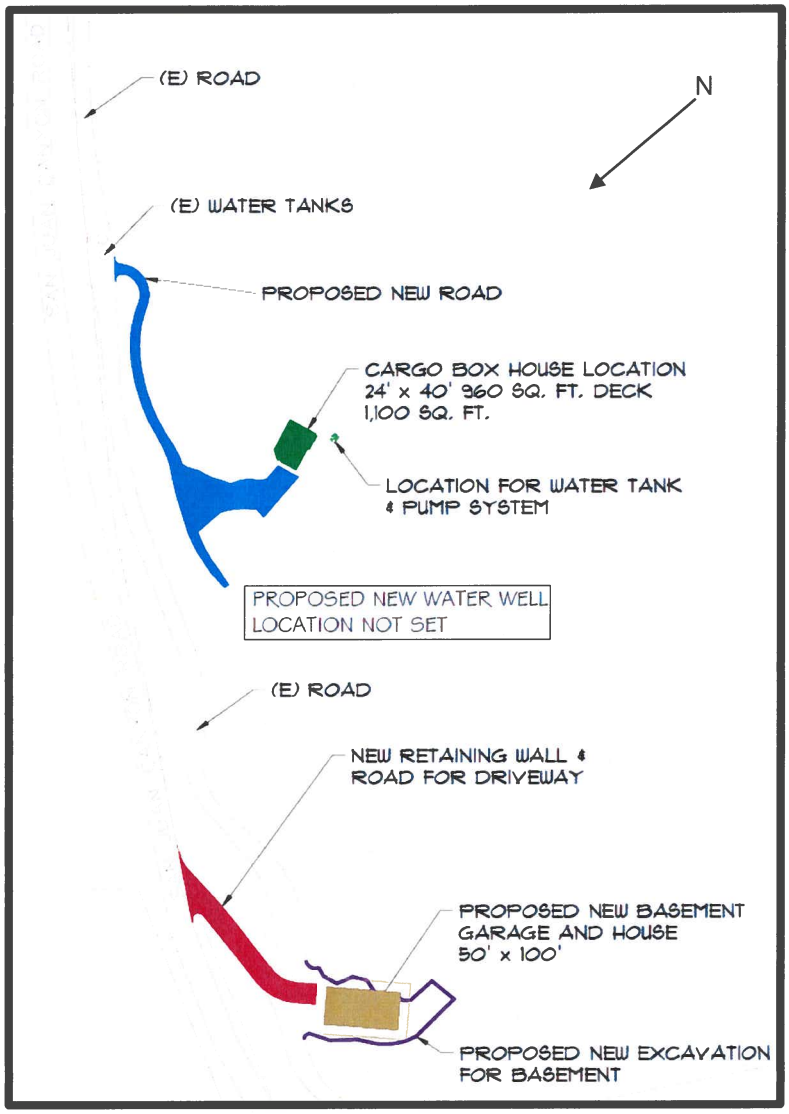
NOTICE IS HEREBY GIVEN that the Initial Study for Planning file PLN200031 is available for public review and that the County as **LEAD AGENCY** intends to adopt a Mitigated Negative Declaration for this project, which finds that the project, provided incorporated of mitigation measures, will not have a significant effect on the environment. The public review period in which comments will be accepted for the proposed Mitigated Negative Declaration begins **May 9, 2023**, and ends at 5 p.m. on **June 7, 2023**. The project's Initial Study, its proposed Mitigated Negative Declaration, and the documents referenced in the Initial Study and Mitigated Negative Declaration are available for review at the County Resource Management Agency at the above address or Accela Citizens' Access (see instructions at lower right). Comments may be addressed to the contact person noted above, and written comments are preferred. Please reference the project file number in all communications. **NOTICE IS HEREBY FURTHER GIVEN** that a public hearing for this project before the County Planning Commission is tentatively scheduled for 6 p.m., **June 21, 2023** (or as soon thereafter as the matter may be heard), in the Board of Supervisors Chambers of San Benito County, located at 481 Fourth Street, Hollister, California, at which time and place interested persons may appear and be heard thereon.



The proposed Project would permit after the fact one building and driveways on the Project site. The currently existing building is constructed of three shipping containers, would cover 986 square feet and contain one residence. The Project would also allow construction of a second building containing two dwellings and storage space. The proposed building would have a footprint of 4,000 square feet and contain two levels: 4,000 square feet of storage below and two apartments above. Grading associated with the Project would amount to 4,469 cubic yards of cut material and 455 cubic yards of fill and form two separate driveways and building sites. Most of the grading was completed without permits. Each building would stand at the end of each driveway, which together would total approximately 600 feet in length. Retaining walls would stand along the driveway to the new building and around the new building's footprint. The dwellings would be served by septic systems and well water. Much of the project has already been constructed without permits, with the shipping-container dwelling currently standing and grading for both buildings' sites already undertaken.

To view project documents using Accela:
1) *go to the website* **aca.accela.com/SANBENITO**,
2) *go to Planning and click on "Search Cases,"*
3) *enter the Record Number* ***PLN200031*** *and click "Search," then*
4) *open the drop-down menu "Record Info" and click "Attachments."*
Project-related documents can be found here, with the initial study using the file name **IS_PLN200031_230508 Wilson San Juan Cyn.pdf**.

The surrounding land uses are Rural, with neighboring properties used for grazing and for rural residences. The Project site is a rural parcel located in a mixed woodland habitat dominated by indigenous Coast Live Oak, Black Oak, and dense understory scrub type vegetation. The property lies along San Juan Canyon Road, or County Route G1, which among other purposes serves as an 11-mile route between San Juan Bautista and Fremont Peak State Park. San Juan Canyon is a feature of the Gabilan Range that lies between two slopes, one a ridge dividing the canyon from the San Juan Valley, and the other eventually leading upward to Fremont Peak. A portion of the Project site is high above the opposing ridge enough to have a northeastward view of the Hollister Valley and Diablo Range.



The site is under the Rural (R) land use designation in the San Benito County 2035 General Plan. This designation is intended "to allow very low-density residential development in areas that are not primarily suited for agricultural uses, but due to the lack of public infrastructure (e.g., water, sewer, drainage) or for geographical reasons are unsuited for higher density residential designations.." The land use designation allows one dwelling unit per five acres. This property is subject to the Rural (R) zoning designation, which reflects the General Plan's corresponding R designation.

Currently, the Project site contains a partially-constructed single-family residence, two water tanks, a propane tank, unpaved roads, stored materials, several shipping containers, and vehicles and construction equipment. Based on a review of historical aerial photographs available from Google Earth, the majority of the site grading and oak tree removal activities occurred in 2016 and 2017. It is estimated that 1.91-acres of oak woodland habitat has been removed over the course of the Project site activities since 2016.

The disturbed areas are located in the vicinity of the shipping container residence with swimming pool, proposed multi-purpose building area, associated driveways, and the roads that extend across the hillside upslope to a pre-existing unpaved road near the top of the ridge. Site improvements constructed during this time period also include the current shipping container residence, septic system, main driveway, and retaining walls.

The Project includes construction of a water supply well on the property, although the final location of the well has not been determined at this time. The Project also includes construction of a new septic system on the property to serve the three residences.

Although not proposed by the Applicant, restoration of disturbed areas in violation of the County grading ordinance and not required for allowable site use would be appropriate pursuant to County grading ordinance. Restoration activities would include correction of unpermitted grading to conform with County grading ordinance requirements, restoration of graded areas not required for future site use (e.g., cleared trails above the residence), and repair of small landslides and erosion areas that have developed since the unpermitted activity occurred.

Michael Kelly — Signature

Senior Planner — Title

May 8, 2023 — Date

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

4807 SAN JUAN CANYON ROAD
PLN200031
SAN BENITO COUNTY, CALIFORNIA

Project No. 2002-7192

Prepared for:

San Benito County
Resource Management Agency
2301 Technology Parkway
Hollister, California 95023-2513

Prepared by:

Padre Associates, Inc.
369 Pacific Street
San Luis Obispo, California 93401

MAY 2023

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

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Appendix A. Architectural Drawings

Appendix B. Biological Assessment of Areas Impacted by Non-Permitted Grading Activities

Appendix C. Geotechnical Investigation Report

LIST OF ACRONYMS

AB	Assembly Bill
APN	Assessors' Parcel Number
ATCFPD	Aromas Tri-County Fire Protection District
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalGEM	California Department of Geologic Energy Management Division
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Control Board
CCAA	California Clean Air Act
CCCE	Central Coast Community Energy
CCRWQCB	Central Coast Regional Water Quality Control Board
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGOPR	California Governor's Office of Planning and Research
County	San Benito County
CH_4	Methane
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Level Equivalent
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	CO_2 equivalents
CRHR	California Register of Historical Resources

CRPR	California Rare Plant Rank
dB	Decibels
DBH	Diameter at Breast Height
DPM	Diesel Particulate Matter
ECOS	Environmental Conservation Online System
EIR	Environmental Impact Report
FCAA	Federal Clean Air Act
FE	Federal Endangered
FEMA	Federal Emergency Management Agency
FESA	Federal Environmental Species Act
FRAP	Fire and Resource Assessment Program
FT	Federal Threatened
GHG	Greenhouse Gas
H_2S	Hydrogen Sulfide
HCP	Habitat Conservation Plan
HDVIP	Heavy Duty Vehicle Inspection Program
HHLA	Healthy Heart and Lung Act
IPaC	Information, Planning, and Consultation
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
lbs	pounds
Ldn	Day-Night Average Sound Level
Leq	Energy Equivalent Sound Level
LOS	Level of Service
MBARD	Monterey Bay Air Resources District
MND	Mitigated Negative Declaration
$MTCO_2e$	Metric tons per year
$MTCO_2e/SP$	Metric tons per year per service population
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NCCAB	North Central Coast Air Basin

NAHC	Native American Heritage Commission
NO	Nitrogen Oxide
NO_2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
NRHP	National Register Historic Places
NWI	National Wetland Inventory
NWIC	Northwest Information Center
O_3	Ozone
PG&E	Pacific Gas and Electric
$PM_{2.5}$	Particulate Matter with w Diameter of 2.5 Microns or Less
PM_{10}	Particulate Matter with a diameter of 10 Microns or Less
ppm	Parts Per Million
PPV	Peak Particle Velocity
PTO	Permit to Operate
R	Rural
ROG	Reactive Organic Gases
SB	Senate Bill
SBCRMA	San Benito County Resource Management Agency
SCE	Southern California Edison
SE	State Endangered
SLOAPCD	San Luis Obispo County Air Pollution Control Board
SSC	Species of Special Concern
SSG	Soil Survey Group
ST	State Threatened
SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic Air Contaminants
$\mu g/m^3$	Micrograms Per Cubic Meter of Air
µPa or rms	microPascals
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	Unites States Geologic Service

WEAP	Worker Environmental Awareness Program
WL	Watch List

SAN BENITO COUNTY

NOTICE OF PROPOSED MITIGATED NEGATIVE DECLARATION

TO: Responsible agencies, Trustee agencies, other County Departments, and interested parties.

FROM: San Benito County Resource Management Agency

This notice is to inform you that the San Benito County Resource Management Agency has prepared an Initial Study and intends to recommend filing a Mitigated Negative Declaration for the project identified below. The public review period for the Initial Study is from **May 9, 2023** to **June 7, 2023**. The document is available for review at the address listed below. Comments may be addressed to the contact person, Michael P. Kelly. Written comments are preferred. Please use the project file number in all communication.

1. **Project title and/or file number:** 4807 San Juan Canyon Road (County File PLN200031)
2. **Lead agency name and address:** San Benito County Resource Management Agency
   2301 Technology Parkway
   Hollister, CA 95023-2513
3. **Contact person and phone number:** Michael P. Kelly, Associate Planner (831) 902-2287
4. **Project location:** 4807 San Juan Canyon Road, San Benito County, CA
5. **Project sponsor's name and address:** Charles Wilson
   805 Vertin Avenue,
   Salinas, CA 93901
6. **General Plan designation:** Rural (R)
7. **Zoning:** Rural (R)
8. **Description of project:** The proposed Project would permit after the fact one building and driveways on the Project site. The currently existing building is constructed of three shipping containers, would cover 986 square feet and contain one residence. The Project would also allow construction of a second building containing two dwellings and storage space. The proposed building would have a footprint of 4,000 square feet and contain two levels: 4,000 square feet of storage below and two apartments above. Grading associated with the Project would amount to 4,469 cubic yards of cut material and 455 cubic yards of fill and form two separate driveways and building sites. Most of the grading was completed without permits. Each building would stand at the end of each driveway, which together would total approximately 600 feet in length. Retaining walls would stand along the driveway to the new building and around the new building's footprint. The dwellings would be served by septic systems and well water.

   Much of the project has already been constructed without permits, with the shipping-container dwelling currently standing and grading for both buildings' sites already undertaken.

   Refer to Section 1.0 for a detailed Project Description.

9. **Surrounding land uses and setting:** The surrounding land uses are Rural, with neighboring properties used for grazing and for rural residences. The Project site is a rural parcel located in a mixed woodland habitat dominated by indigenous Coast Live Oak, Black Oak, and dense understory scrub type vegetation (Thompson Wildland Management, 2018). The property lies along San Juan Canyon Road, or County Route G1, which among other purposes serves as an 11-mile route between San Juan Bautista and Fremont Peak State Park. San Juan Canyon is a feature of the Gabilan Range that lies between two slopes, one a ridge dividing the canyon from the San Juan Valley, and the other eventually leading upward to Fremont Peak. A portion of the Project site is high above the opposing ridge enough to have a northeastward view of the Hollister Valley and Diablo Range.

   Seismic zone: Not within an Alquist–Priolo Fault Zone but approximately 1,600 feet from the San Andreas Fault.

   Fire hazard: Very High (State Responsibility Area)

   Floodplain: Zone X (outside the 100-year floodplain)

   Archaeological sensitivity: Not sensitive

   Habitat conservation area: Within the San Benito County Habitat Conservation Plan fee area per County Ordinance 541.

   Landslide: Most susceptible, with a questionable landslide feature 300 feet southeast of the eastern building footprint.

   Soils: Sheridan coarse sandy loam, located on 30 to 75 percent slopes.

10. **Planning and zoning:** Rural (R)

11. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** The Project would require the following permits to be issued by San Benito County:

    - Conditional Use Permit
    - Grading Permit
    - Tree Removal Permit

    The following includes a list of other governmental agencies that would or may have some level of approval for one or more components of the proposed Project, as required by State California Environmental Quality Act (CEQA) Guidelines Section 15124(d):

    - Central Coast Regional Water Quality Control Board (CCRWQCB): construction general permit.

12. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** The San Benito County Resource Management Agency (SBCRMA) issued letters to Native American tribes in September 2020 notifying them of the Project.

1.0 PROJECT DESCRIPTION

1.1 PROJECT BACKGROUND

In 2017, the County issued a Notice of Violation for non-permitted grading activities that occurred on the Project site, covering an area of approximately 1.91 acres. The majority of the Project has already been constructed without permits, including the shipping-container residence and grading at both building locations and on-site access roads. The County is considering a Conditional Use Permit, Grading Permit, and Tree Removal Permit for completion and occupancy of the Project.

1.2 PROJECT LOCATION AND EXISTING SITE CONDITIONS

The Project site is located at 4807 San Juan Canyon Road in San Benito County (Assessors' Parcel Number [APN] 023-010-061) and is composed of 122.6 acres (Figure 1-1). Specifically, the Project site is located on the south side of San Juan Canyon Road to the southeast of San Juan Bautista.

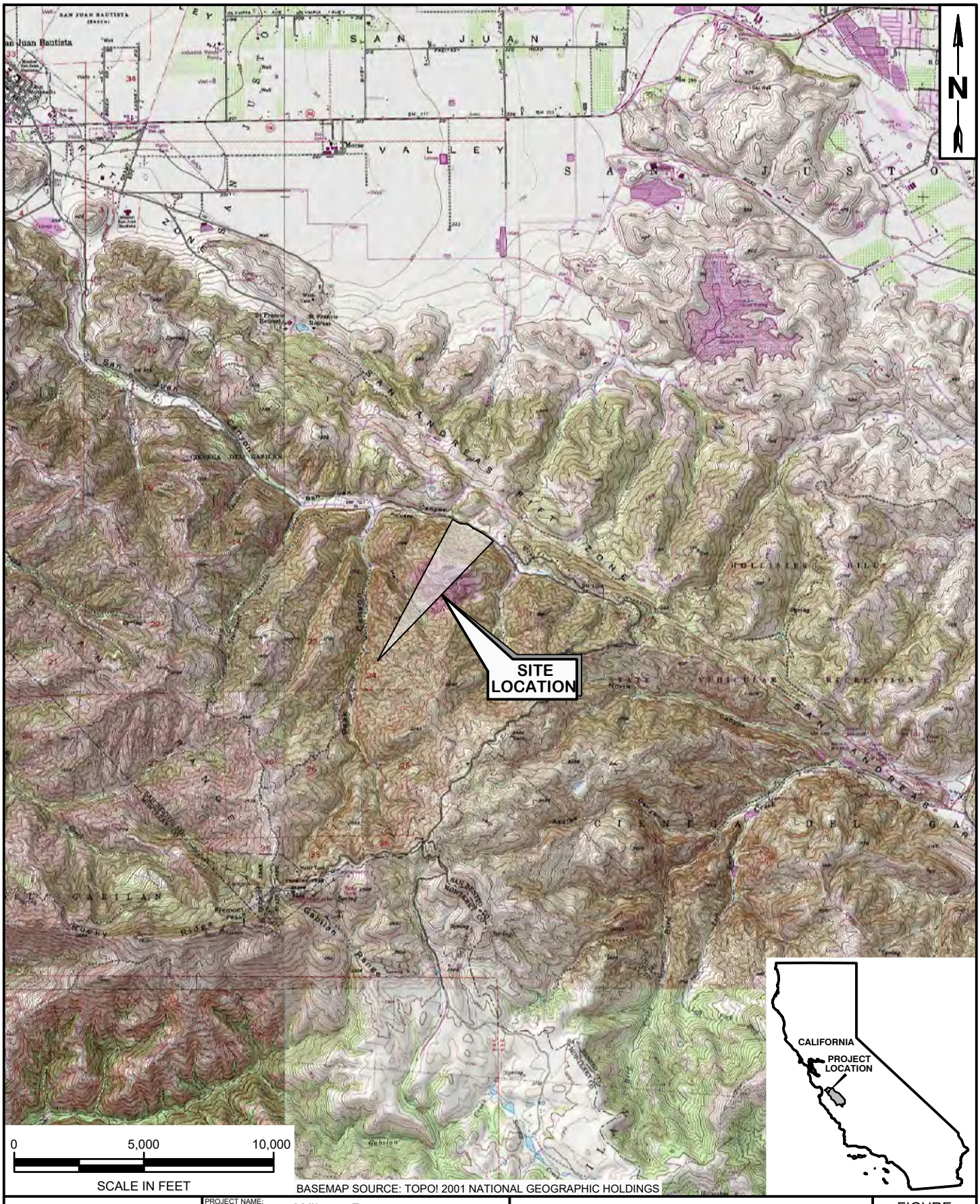
The rural parcel is located in mixed woodland habitat that is dominated by oak trees and dense understory scrub type vegetation. With the exception of a few small clearings, the tree canopy cover is relatively dense. Topography and terrain primarily consist of steep slopes, ridges, drainages, and canyons with slopes of 50% or greater on the majority of the property. The Project site drains to San Juan Canyon Creek, located off-site to the north of San Juan Canyon Road (USGS, 2001).

1.3 PROJECT DESCRIPTION

1.3.1 Existing Project Conditions

Currently, the Project site contains a partially-constructed single-family residence, two water tanks, a propane tank, unpaved roads, stored materials, several shipping containers, and vehicles and construction equipment. Refer to Figure 1-2 – Site Plan. Based on a review of historical aerial photographs available from Google Earth, the majority of the site grading and oak tree removal activities occurred in 2016 and 2017. It is estimated that 1.91-acres of oak woodland habitat has been removed over the course of the Project site activities since 2016.

The disturbed areas are located in the vicinity of the shipping container residence with swimming pool, proposed multi-purpose building area, associated driveways, and the roads that extend across the hillside upslope to a pre-existing unpaved road near the top of the ridge. Site improvements constructed during this time period also include the current shipping container residence, septic system, main driveway, and retaining walls. The shipping container residence is 986 square feet and is constructed out of three shipping containers. Grading to date includes 4,469 cubic yards of cut material and 455 cubic yards of fill for the two separate driveways and building sites.



padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
Wilson Property
4807 San Juan Canyon Road,
San Juan Bautista
San Benito County, CA

PROJECT NUMBER: 2002-7192

DATE: May 2023

SITE LOCATION MAP

FIGURE
1-1

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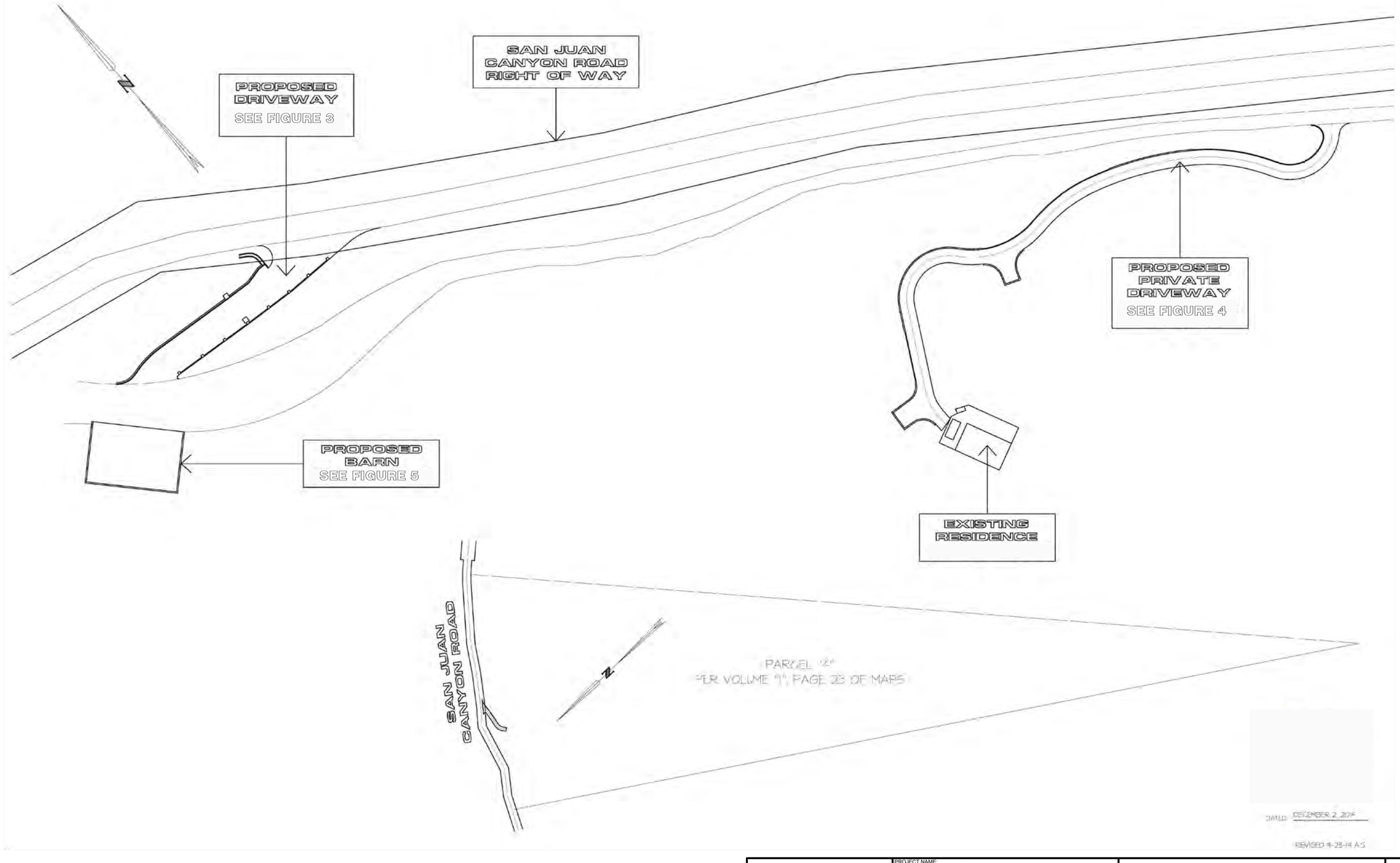


BASEMAP SOURCE: H.D. PETERS COMPANY ENGINEERING; PLANS DATED 12-2-2019

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: Wilson Property
4807 San Juan Canyon Road,
San Juan Bautista
San Benito County, CA

PROJECT NUMBER: 2002-7192

DATE: May 2023

SITE PLAN

FIGURE 1-2

Z:\Current Projects\2002-7191 San Juan Canyon Road IS-MND\GRAPHICS\San Juan Canyon Road.dwg, 12/9/2020 11:08:19 AM

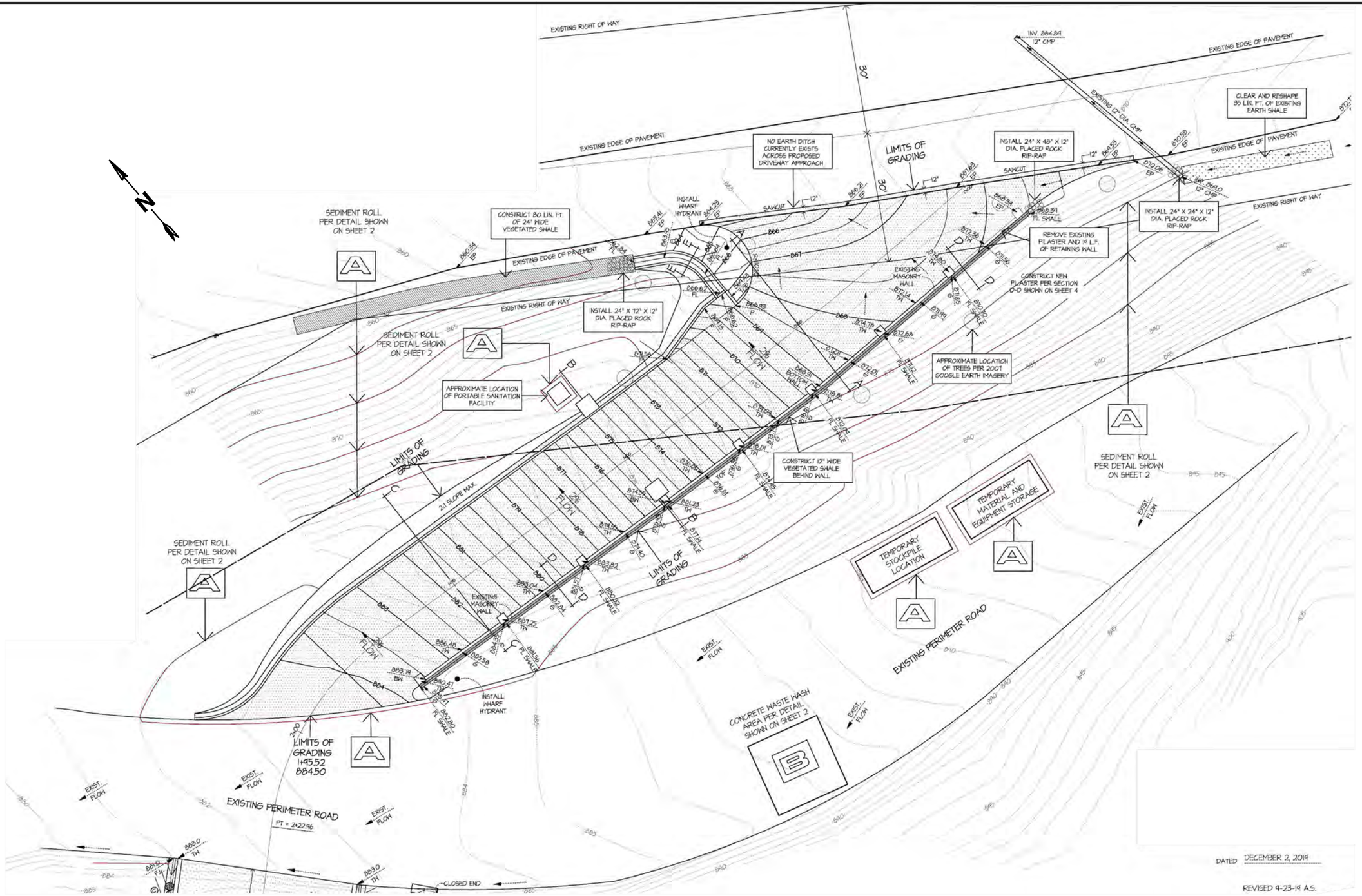
1.3.2 Proposed Project Activities

The Applicant is proposing to complete the partially constructed improvements to allow occupancy of the Project site for residential use. The partially constructed site improvements that are proposed to be completed include the new retaining wall and driveway (Figure 1-3), road to shipping container residence (Figure 1-4), shipping container residence, and associated retaining wall. The Project would include after-the-fact permit issuance for the unpermitted grading that has occurred to-date, proposed civil improvements along roadways and building pads, and the future excavation required for the proposed multi-use building (Figure 1-5).

The Project would also include construction of a multi-use building, which would have a footprint of 4,000 square feet and contain two levels—4,000 square feet of storage below and two apartments above. The finished driveways would total approximately 600 feet in total length. Retaining walls would stand along the driveway to the new building and around the new building's footprint. A water well would be drilled on-site to serve the proposed uses. The residences would be served by on-site septic systems. Architectural drawings for the two proposed buildings are attached as Appendix A.

The Project includes construction of a water supply well on the property, although the final location of the well has not been determined at this time. The Project also includes construction of a new septic system on the property to serve the three residences.

Although not proposed by the Applicant, restoration of disturbed areas in violation of the County grading ordinance and not required for allowable site use would be appropriate pursuant to County grading ordinance. Restoration activities would include correction of unpermitted grading to conform with County grading ordinance requirements, restoration of graded areas not required for future site use (e.g., cleared trails above the residence), and repair of small landslides and erosion areas that have developed since the unpermitted activity occurred.



BASEMAP SOURCE: H.D. PETERS COMPANY ENGINEERING; PLANS DATED 12-2-2019

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: Wilson Property
4807 San Juan Canyon Road,
San Juan Bautista
San Benito County, CA

PROJECT NUMBER: 2002-7192

DATE: May 2023

PROPOSED DRIVEWAY

FIGURE 1-3

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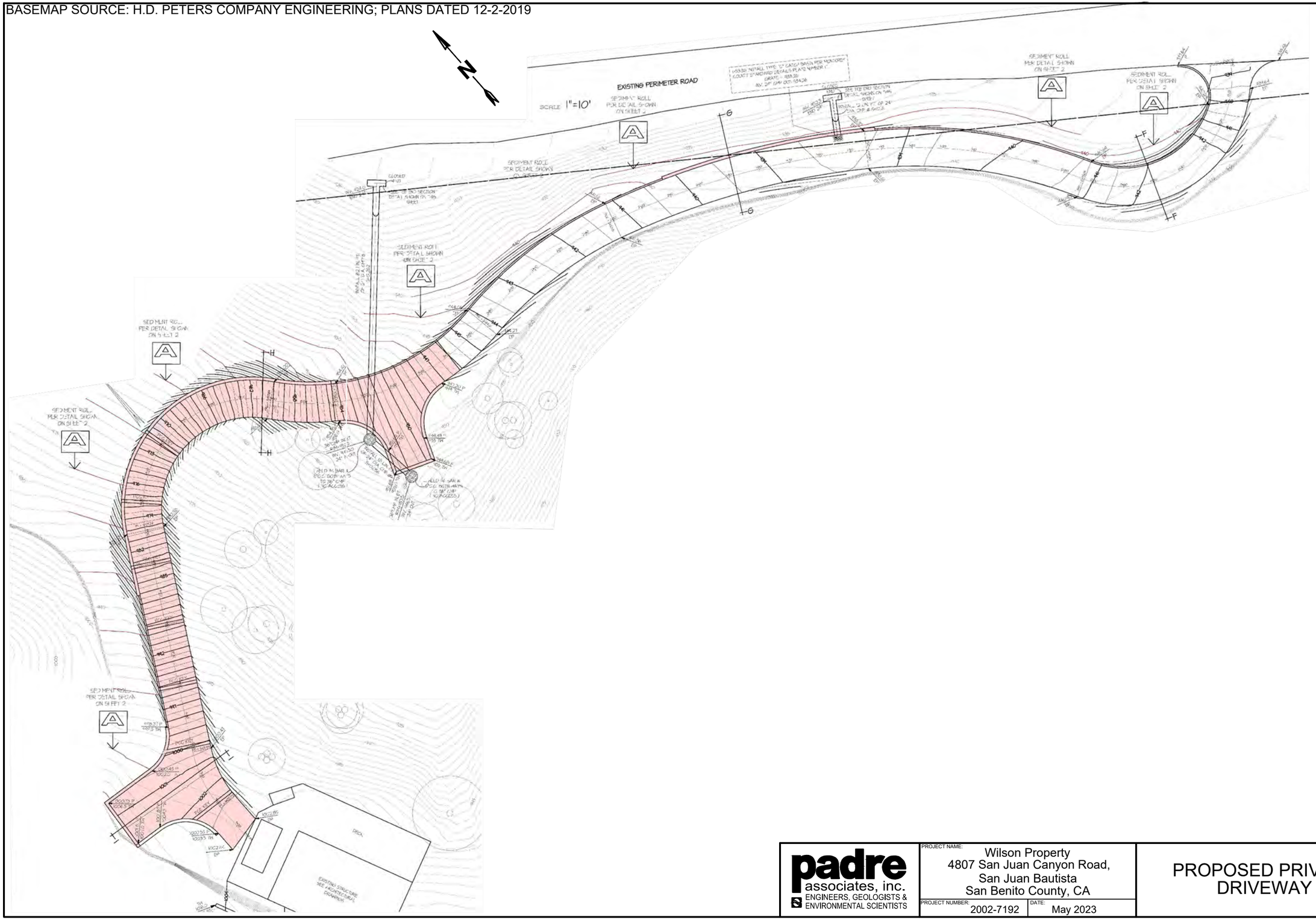
BASEMAP SOURCE: H.D. PETERS COMPANY ENGINEERING; PLANS DATED 12-2-2019



padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS	PROJECT NAME: Wilson Property 4807 San Juan Canyon Road, San Juan Bautista San Benito County, CA	PROPOSED PRIVATE DRIVEWAY	FIGURE 1-4
	PROJECT NUMBER: 2002-7192 DATE: May 2023		

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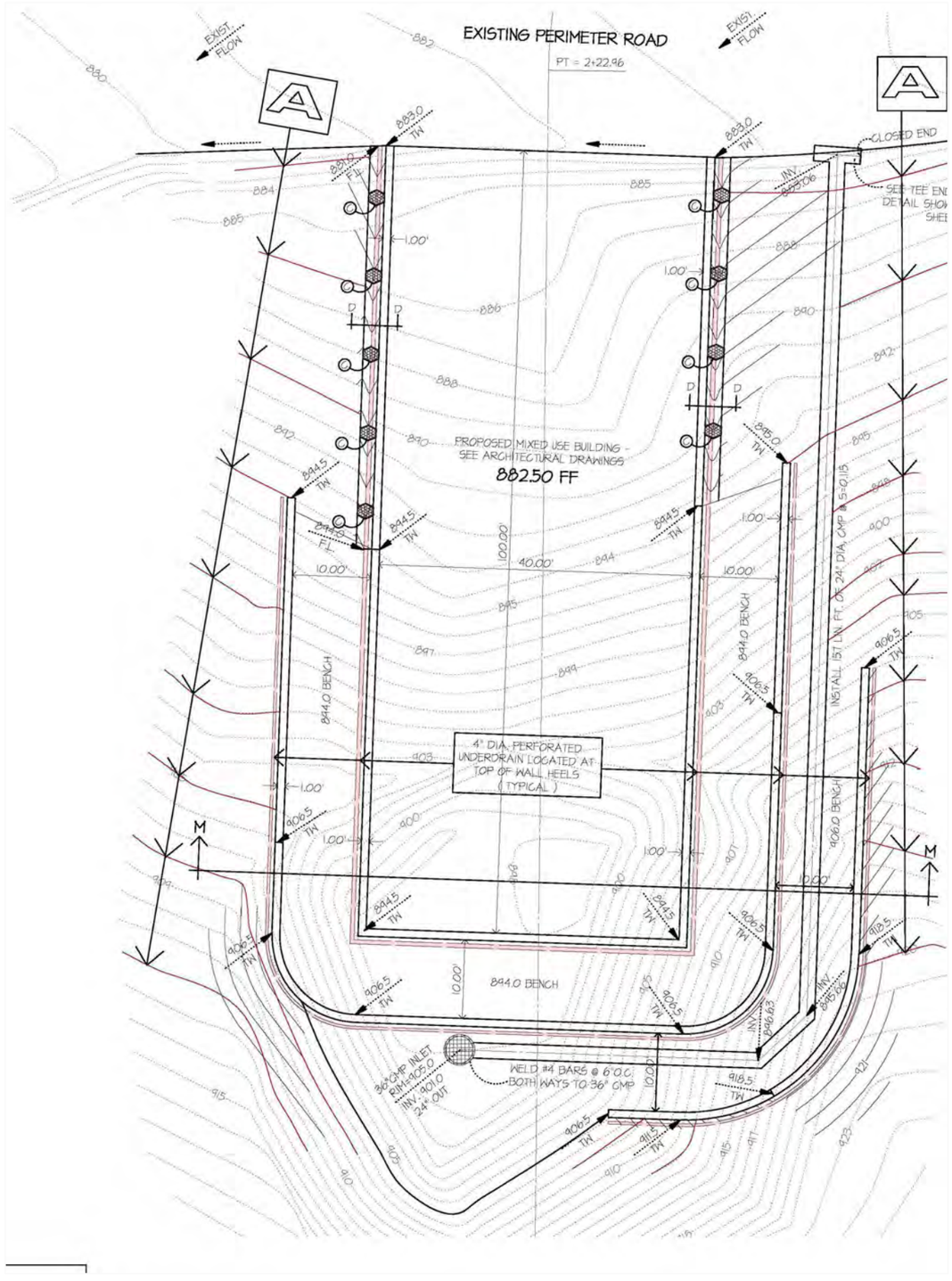


SECTION M-M

REGISTERED PROFESSIONAL ENGINEER
BRENDA A. TALIBAO
No. 42178
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

BASEMAP SOURCE: H.D. PETERS COMPANY ENGINEERING; PLANS DATED 12-2-2019

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME: Wilson Property
4807 San Juan Canyon Road,
San Juan Bautista
San Benito County, CA

PROJECT NUMBER: 2002-7192

DATE: May 2023

PROPOSED
MULTI-USE BUILDING

FIGURE
1-5

2.0 SUMMARY OF FINDINGS

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

Table 2-1. Environmental Issues and Potentially Significant Impacts

☒ Aesthetics	☐ Agriculture and Forest 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 and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities and Service Systems	☒ Wildfire	☐ Mandatory Findings of Significance

2.2 ENVIRONMENTAL DETERMINATION

☐ On the basis of this initial evaluation: I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions 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.

Michael Kelly — *Signature*

May 8, 2023 — *Date*

Michael Kelly — *Printed Name*

San Benito County Planning — *Agency*

3.0 ENVIRONMENTAL ANALYSIS AND INITIAL STUDY CHECKLIST

The evaluation of environmental impacts provided in this Initial Study is based in part on the impact questions contained in Appendix G of the State CEQA Guidelines; these questions, which are included in an impact assessment matrix for each environmental category (Aesthetics, Agriculture/Forest Resources, Air Quality, Biological Resources, etc.), are "intended to encourage thoughtful assessment of impacts." Each question is followed by a check-marked box with column headings that are defined below.

- Potentially Significant Impact. This column is checked if there is substantial evidence that a Project-related environmental effect may be significant. If there are one or more "Potentially Significant Impacts," a Project Environmental Impact Report (EIR) would be prepared.
- Less than Significant with Mitigation. This column is checked when the Project may result in a significant environmental impact, but the incorporation of identified Project revisions or mitigation measures would reduce the identified effect(s) to a less than significant level.
- Less than Significant Impact. This column is checked when the Project would not result in any significant effects. The Project's impact is less than significant even without the incorporation of Project-specific mitigation measures.
- No Impact. This column is checked when the Project would not result in any impact in the category or the category does not apply.

Detailed descriptions and analyses of impacts from Project activities and the basis for significance determinations are provided for each environmental factor on the following pages, beginning with Section 3.1, Aesthetics.

3.1 AESTHETICS

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

3.1.1 Existing Conditions

Views of mountains, undeveloped rangelands, large agricultural fields and croplands, natural ridgelines along the Diablo and Gabilan Ranges, and annual grasslands make up some of the prominent elements of the County's scenic landscape. There are five County-designated scenic roadways. U.S. Highway 101 and State Routes 129 and 146 are all County designated scenic highways (San Benito County, 2015). A segment of State Route 156 within Monterey County 13 miles to the west of the Project site is the closest State scenic designated highway to the Project site (Caltrans, 2020).

The Project site is located in mixed woodland habitat that is dominated by indigenous Coast Live Oak, Black Oak, and dense understory scrub type vegetation. With the exception of a few relatively small clearings, canopy cover is relatively dense. Topography and terrain primarily consist of steep slopes, ridges, drainages, and canyons (Thompson Wildland Management, 2018).

3.1.2 Impact Analysis

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

Less than Significant Impact. As described in the County's General Plan, most of the County consists of agricultural and rangeland uses, many of the County's scenic vistas consist of view of these areas (San Benito County, 2015). The Project includes the construction of residential dwellings and access roads. The Project is not visible from existing scenic roads. The proposed Project would not impair County scenic vistas within the agricultural and rangeland uses; therefore, resulting in a less than significant impact.

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

No Impact. As discussed above, there are many scenic resources in the County. However, the Project site is not located on a designated County scenic roadway or a designated State scenic highway. Therefore, the Project is not visible from an officially designated County or State designated scenic highway and will have no impact on scenic resources such as rock outcroppings, trees, or historic buildings within view from a scenic highway.

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

Less than Significant with Mitigation. Removal of the mixed woodland habitat and dense understory scrub type vegetation resulted in a temporary impact to the visual character of the public views of the Project site. Implementation of mitigation measures BIO-8: Oak Tree Mitigation and BIO-9: Habitat Restoration Plan would result in replacement plantings and habitat restoration; therefore, resulting in a less than significant impact.

The Project site is surrounded by rural lands which consist of mixed woodland habitat, some agricultural uses, and residential dwellings. The Project would blend in with the other residential dwellings in the Project vicinity; therefore, resulting in a less than significant impact.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Construction activities would only occur during daytime hours, and nighttime lighting would not be required. Exterior lighting on the residences and driveways would not create a source of substantial light or glare.

The Project site is within Zone I as defined by County Development Lighting Regulations (Ordinance 748), intended to limit nighttime glare affecting the Fremont Peak observatory and Pinnacles National Monument. New lighting for the residence and commercial buildings would be required to comply with the ordinance to prevent excessive escape of light from the Project site, resulting in a less than significant impact.

3.1.3 Mitigation Measures

Implementation of the following mitigation measure would reduce potential Project-related impacts to aesthetics to less than significant:

- MM BIO-8: Oak Tree Mitigation
- MM BIO-9: Habitat Restoration Plan

3.2 AGRICULTURE AND FORESTRY RESOURCES

AGRICULTURE AND FORESTRY RESOURCES[1] - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
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 Natural Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☒	☐	☐
e) Involve other changes in the existing environment 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?	☐	☐	☒	☐

3.2.1 Existing Conditions

The California Department of Conservation (CDC) California Important Farmland Finder does not identify Prime Farmland, Unique Farmland, or Farmland of Statewide importance in within the Project vicinity. The Project site is classified as “Other Land” (CDC, 2020). In addition, the Project site and surrounding parcels are not currently under a Williamson Act contract, nor are they zoned as forestland, timberland, or Timberland Production (CDC, 2020).

[1] In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

3.2.2 Impact Analysis

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 Natural Resources Agency, to non-agricultural* use?

No Impact. There is no farmland, unique farmland, or farmland of statewide importance, as designated by the Farmland Mapping and Monitoring Program, within the Project site. Therefore, the Project would not convert farmland to non-agricultural use, and no impact would occur.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. While the Project site's zoning allows agriculture and requires minimum lot sizes that may accommodate agriculture, the site is not especially zoned for agricultural use or under Williamson Act contract. Therefore, no impact would occur.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?

No Impact. The Project site is zoned Rural. As the proposed Project is an allowable use and the Project site zoning would not change, there would be no conflict with existing zoning for, or cause for rezoning of, forest land, timberland, or timberland zoned Timberland Production. Therefore, no impact would occur.

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

Less than Significant with Mitigation. The Project does not cross any forest land and would not result in the loss of forest land or conversion of forest land to non-forest use. However, removal of the mixed woodland habitat and dense understory scrub type vegetation resulted in temporary impacts to the Project site. Implementation of mitigation measures BIO-8: Oak Tree Mitigation and BIO-9: Habitat Restoration Plan would result in replacement plantings and habitat restoration; therefore, resulting in a less than significant impact.

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?

Less than Significant Impact. The Project site includes mixed woodland habitat and dense understory scrub type vegetation. The Project would not convert farmland to non-agricultural use or forest land or non-forest use. Therefore, resulting in a less than significant impact.

3.2.3 Mitigation Measures

Implementation of the following mitigation measure would reduce potential Project-related impacts to agriculture and forestry resources to less than significant:

- MM BIO-8: Oak Tree Mitigation
- MM BIO-9: Habitat Restoration Plan

3.3 AIR QUALITY

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

3.3.1 Existing Conditions

The U.S. Environmental Protection Agency (USEPA) has established national ambient air quality standards (NAAQS) to protect public health (primary standards) and welfare (secondary standards). Air basins are classified by the USEPA as in "attainment" or "non-attainment" based on meeting the NAAQS. The state of California Air Pollution Control Board (CARB) has established separate, more stringent California ambient air quality standards (CAAQS), which also requires air basins to be designated as in "attainment" or "non-attainment" based on meeting the CAAQS. NAAQS and CAAQS have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter (e.g., dust) and lead (refer to Table 3.3-1). In addition, California has standards for, hydrogen sulfide, sulfates and visibility-reducing particles.

The Project site is located within the North Central Coast Air Basin (NCCAB), which is comprised of Santa Cruz, San Benito, and Monterey Counties and is further located within northern San Benito County (County). The NCCAB and the County are currently designated as in non-attainment for the 8-hour ozone (O_3) CAAQS and for particulate matter with a diameter of 10 microns or less (PM_{10}) CAAQS. The County is either in attainment or is unclassified for all other CAAQS and all NAAQS. Unclassified status indicates that there is insufficient date to determine whether an air basin or county is in attainment or non-attainment.

3.3.2 Local Climate and Meteorology

The general climate within the NCCAB is controlled by a semi-permanent high-pressure area in the eastern Pacific Ocean. This high-pressure area is particularly dominant in the summer causing persistent northwest winds along the California coast. These winds descend forming a temperature inversion of hot air over the cool air from the Pacific that prevents vertical air movement trapping pollutants. The northwest to southeast oriented mountain ridges of the

NCCAB restricts and channels the onshore winds. In the area of the Project site surface heating creates a weak low pressure area that tends to exacerbate the temperature inversion.

3.3.3 Criteria Pollutants

Criteria air pollutants are those contaminants for which ambient air quality standards have been established for the protection of public health and welfare. Criteria pollutants include O_3, carbon monoxide (CO), oxides of nitrogen (NO_X), sulfur dioxide (SO_2), PM_{10}, and $PM_{2.5}$.

Ozone. O_3 is formed in the atmosphere through complex photochemical reactions involving NO_X, reactive organic gases (ROG) (also known as reactive organic compounds), and sunlight that occur over several hours. Since O_3 is not emitted directly into the atmosphere but is formed as a result of photochemical reactions, it is classified as a secondary or regional pollutant. These O_3-forming reactions take time, and therefore peak ozone levels are often found downwind of major source areas. O_3 is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from ozone exposure.

Carbon Monoxide. CO is primarily formed through the incomplete combustion of organic fuels. Higher CO values are generally measured during winter when dispersion is limited by morning surface inversions. Seasonal and diurnal variations in meteorological conditions lead to lower values in summer and in the afternoon. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues, which can cause health effects to those with cardiovascular disease and can affect mental alertness and vision.

Nitric Oxide (NO). NO is a colorless gas formed during combustion processes which rapidly oxidizes to form nitrogen dioxide (NO_2), a brownish gas. The highest nitrogen dioxide values are generally measured in urbanized areas with heavy traffic. Exposure to NO_2 may increase the potential for respiratory infections in children and cause difficulty in breathing even among healthy persons and especially among asthmatics.

Sulfur Dioxide. SO_2 is a colorless, reactive gas that is produced from burning sulfur-containing fuels, such as coal and oil, as well as by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways, leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Particulate Matter. Ambient air quality standards have been set for PM_{10} and $PM_{2.5}$. Both consist of different types of particles suspended in the air, such as metal, soot, smoke, dust and fine mineral particles. The particles' toxicity and chemical activity can vary, depending on the source. The primary source of PM_{10} emissions appears to be from the soil via road use, construction, agriculture, and natural windblown dust; other sources include sea salt, combustion processes (such as those in gasoline or diesel vehicles), and wood burning. Primary sources of $PM_{2.5}$ emissions come from construction sites, wood stoves, fireplaces and diesel truck exhaust. Particulate matter is a health concern because when inhaled it can cause permanent lung damage. While both sizes of particulates can be dangerous when inhaled, $PM_{2.5}$ tends to be more damaging because it remains in the lungs.

3.3.4 Regulatory Setting

The USEPA has jurisdiction under the Federal Clean Air Act (FCAA) and its amendments. The CARB has jurisdiction under the California Clean Air Act (CCAA) and California Health and Safety Code. The USEPA and CARB classify an area as attainment, unclassified, or non-attainment, depending on whether the monitored ambient air quality data show compliance, insufficient data to determine compliance, or non-compliance with the NAAQS and CAAQS, respectively.

3.3.4.1 Federal and State Air Quality Standards

Air quality standards are specific pollutant concentration thresholds that are used to protect public health and the public welfare. The USEPA has developed the NAAQS to provide an adequate margin of safety to protect human health and to protect the public welfare from any known or anticipated adverse effects. The CARB has developed CAAQS, which are generally lower in concentration (i.e., more stringent) than NAAQS. Table 3.3-1 lists the NAAQS and CAAQS (CARB, 2020).

Table 3.3-1. Ambient Air Quality Standards (State and Federal)

Pollutant	Averaging Time	California Standard	Federal Standard
Ozone (O_3)	1-Hour	0.09 ppm	--
Ozone (O_3)	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1-Hour	20 ppm	35 ppm
Carbon Monoxide (CO)	8-Hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm
Nitrogen Dioxide (NO_2)	1-Hour	0.18 ppm	100 ppb
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	0.030 ppm
Sulfur Dioxide (SO_2)	24-Hour	0.04 ppm	0.14 ppm
Sulfur Dioxide (SO_2)	3-Hour	--	0.5 ppm (secondary)
Sulfur Dioxide (SO_2)	1-Hour	0.25 ppm	75 ppb
Respirable Particulate Matter PM_{10}	Annual Geometric Mean	20 µg/m^3	--
Respirable Particulate Matter PM_{10}	24-Hour	50 µg/m^3	150 µg/m^3
Fine Particulate Matter $PM_{2.5}$	Annual Geometric Mean	12 µg/m^3	12.0 µg/m^3
Fine Particulate Matter $PM_{2.5}$	24-Hour	--	35 µg/m^3
Hydrogen Sulfide (H_2S)	1-Hour	0.03 ppm	--
Vinyl Chloride	24 Hour	0.01 ppm	--
Sulfates	24 Hour	25 µg/m^3	--
Lead	30 Day Average	1.5 µg/m^3	--
Lead	Calendar Quarter	--	1.5 µg/m^3
Lead	Rolling 3-Month Average	--	0.15 µg/m^3
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	--

Source: CARB, 2020c

3.3.1 Air Toxic Health Risks.

Diesel fuel combustion in internal combustion engines produces exhaust containing a number of compounds that have been identified as toxic air contaminants (TACs) by CARB. In 1998, CARB identified diesel particulate matter (DPM) from diesel exhaust as a TAC. In 2000, CARB developed the Diesel Risk Reduction Plan to reduce PM and DPM emissions from diesel-fueled engines and vehicles to establish new emission standards, certification programs, and engine retrofit programs to control exhaust emissions from diesel engines and vehicles (CARB,

2000). CARB has the following diesel enforcement programs and regulations to reduce the smog-forming pollutant and TAC emissions and that may be applicable to the Project:

Commercial Vehicle Idling. Diesel-fueled motor vehicles with a gross vehicle weight rating greater than 10,000 pounds are prohibited from idling the vehicle's primary engine for more than five minutes at any location.

Heavy Duty Vehicle Inspection Program (HDVIP). The HDVIP program requires heavy-duty trucks and buses to be inspected for excessive smoke, tampering, and engine certification label compliance.

Software Upgrade for Diesel Trucks. Requires owners of eligible 1993–1998 model year electronically controlled heavy-duty diesel engines to install low NOx software at the time of an engine rebuild.

Truck and Bus Regulation. This regulation requires that all trucks and buses be equipped with 2010 or newer model year engines to reduce PM, DPM and NOx emissions. Starting in 2020, the California Department of Motor Vehicles will only register vehicles that comply with this regulation.

Strategic Plan for Diesel Enforcement. Assembly Bill (AB) 233 also known as the Healthy Heart and Lung Act (HHLA) enacted in 2007, requires CARB to develop a strategic plan to enforce diesel emission control regulations. HHLA specifically requires CARB, every three years, to review existing diesel emission control regulations enforcement and anticipated enforcement needed to implement the Diesel Risk Reduction Plan. Based on that review, CARB is required to develop a Strategic Plan for consistent, comprehensive and fair enforcement of these regulations. In 2008 CARB issued a notice of postponement for the first Strategic Plan's public review (CARB, 2008). No future date for public review has been set and further review by CARB has been postponed (CARB, 2020a and CARB, 2020b).

3.3.2 Regional/Local Regulatory Setting

The County and the NCCAB are regulated by the Monterey Bay Air Resources District (MBARD), formerly known as the Monterey Bay Unified Air Pollution Control District, which shares responsibility with CARB for ensuring that all ambient air quality standards are attained within the County and NCCAB. The MBARD has jurisdiction under the California Health and Safety Code to develop emission standards (rules) for the NCCAB, issue air pollution permits, and require emission controls for stationary sources in the NCCAB. The MBARD is also responsible for the attainment of air quality standards in the County AND NCCAB. As discussed in Section 3.1.1 the NCCAB and the County are currently designated as non-attainment for the 8-hour O_3 CAAQS, and PM_{10} CAAQS (CARB, 2021). The MBARD updated and adopted an Air Quality Management Plan (AQMP) in 2017, the focus of the updated AQMP is to achieve attainment of the 8-hour O_3 CAAQS. According to the AQMP mobile sources in the NCCAB and emissions from the San Francisco Bay Area are the primary source of NOx and area wide sources are the primary sources of ROGs. The AQMP indicated a reduction in NOx emissions since 2012 and attributed this reduction to cleaner state exhaust standards for mobile sources. The MBARD plans to focus on reducing NOx emissions from on-road and off-road sources, through mobile source grant programs from the California Energy Commission (CEC).

3.3.2.1 MBARD Rules and Regulations

The following MBARD rules and regulations are applicable to the Project:

Rule 400 Visible Emissions. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in anyone (1) hour which is:

a. As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart, as published by the United States Bureau of Mines, or

b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (a) of this section.

Rule 402 Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause, or have a natural tendency to cause injury or damage to business or property.

Rule 403 Particulate Matter. A person shall not discharge from any source whatsoever particulate matter in excess of 0.15 grain per standard dry cubic foot of exhaust gas.

3.3.2.2 MBARD CEQA Thresholds

The MBARD prepared the document *CEQA Air Quality Guidelines* updated in February 2008 (MBARD CEQA Guidelines) to assist consultants and regulators in the evaluation of project air quality impacts. In the guidance document the MBARD has established significance thresholds for construction and operational projects.

Construction Projects. The MBARD considers construction projects to be a temporary source of emissions that are short in direction and are dependent on the size, phasing and type of the project. PM_{10} emissions appear to be the primary concern in the NCCAB for construction projects and the MBARD has established a significance threshold of 82 pounds/day (lbs/day) pf PM_{10}. Based on the 82 lbs/day threshold the MBARD has cited the construction activities rates that could potentially cause significant air quality impacts from PM_{10} emissions (refer to Table 3.3-2). Construction projects that are below the construction activities rates shown in Table 3.2-2 are assumed by the MBARD to be below the 82 pounds/day threshold.

Table 3.3-2. Construction Activity Rates with the Potential for Significant PM_{10} Impacts

Pollutant	Activity Rate (Acres per Day)
Construction Site with Minimal Earthmoving	8.1
Construction Site with Earthmoving	2.2

Source: MBARD 2008

Emissions of ROG and NOx from typical construction equipment are assumed by the MBARD to not have a significant impact on air quality as they have been accounted for in the emissions inventories of State and Federally required air plans.

TACs such as diesel particulate matter would be generated primarily by heavy construction equipment during site preparation, grading, driveway construction and to a lesser extent during building construction. The DPM emissions from heavy construction equipment would be temporary and occur over short durations. Stationary TAC sources that have the potential to emit 10 ton/year are regulated by MBARD.

Operations. Depending on the project the operational or long-term emissions typically have the largest air quality impacts of a project. The MBARD has determined that emissions below the operational thresholds listed in Table 3.3-3 would indicate that a project would not have a significant impact on air quality.

Table 3.3-3. MBARD Operational Thresholds of Significance

Pollutant	Threshold (pounds per day)
NO_X	137 (direct + indirect emissions)*
ROGs	137 (direct + indirect emissions)*
PM_{10}	82
CO*	550
SO_X	150
Notes: * - Direct sources are sources directly related to a project, such as a propane heater or propane water heater. Indirect sources are sources not directly related to a project, such as a service rendered offsite or delivery vehicles.	

Source: MBARD 2008

The MBARD also provides a list of indirect operational sources for O_3 precursors NO_X and ROGs based on land use. Sources that are related to the Project are listed in Table 3.3-4 below.

Table 3.3-4. MBARD Indirect Operational Sources of NOX and ROGs

Land Use	Threshold for Potential Significance (Dwelling Units)
Single Family Dwelling	810
Low Rise Apartments	1,080
Condominiums/Townhouses	1,195
Mobile Home Park	1,320

Source: MBARD 2008

The operational phase of residential projects per the MBARD should also be compared to the population growth forecast in the current AQMP to verify that it they are consistent with the population growth forecasted.

3.3.3 Impact Analysis

a. Conflict with or obstruct implementation of the applicable air quality plan?

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

c. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation. The construction and operational phases of the Project when compared to the MBARD CEQA Guidelines would not conflict with the AQMP, would not result in a net increase of criteria pollutants, and would not expose sensitive receptors to substantial pollutant concentrations; therefore, would have a less than significant impact with mitigation. The sections below discuss the Projects comparison to the MBARD CEQA Guidelines.

The construction phase of the Project is proposed to disturb approximately 1.91 acres and has an expected duration of approximately 50-days (10-days for grading activities and 40-days for construction activities)[2]. Per the MBARD CEQA Guidelines a construction project with earthmoving activities that are less 2.2 acres per day would be assumed to be below the 82 lbs/day construction significance threshold for PM_{10}; therefore, the Project would be assumed to not exceed the PM_{10} daily emissions threshold. The Project would utilize typical construction equipment for grading and construction activities; therefore, any ROG and NOx Project emissions generated would be assumed to not have a significant impact on air quality as they have been accounted for in the emissions inventories of State and Federal required air quality plans per the MBARD CEQA Guidelines.

Implementation of standard MBARD dust control measures provided in MM AQ-1 would reduce the potential for nuisance dust emissions during Project construction activities, resulting in a less than significant impact.

MM AQ-1: Standard Dust Control Measures. The applicant shall implement the following dust control measures during the course of construction activities:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.

[2] Includes grading and construction activities that have already been completed.

- Install wheel washers or rumble strips at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites when feasible.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Air Resources District shall be visible to ensure compliance with Rule 402 (Nuisance).
- Limit the area under construction at any one time.

The operation phase of the Project would consist of one 960 square foot single family residential building, one 4,000 square foot multi-use building with two dwelling units and storage space, approximately 750 linear feet of paved driveway, one water well, and two septic systems. The Project would produce operational emissions that would be generated primarily from use of propane for heating and cooking and vehicle trips to and from the Project site. The MBARD CEQA Guidelines indicates that residential projects with 810 or more dwelling units would potentially have a significant impact on air quality. The Project proposed consist of one single family residential building and one multifamily building with two residential dwellings. Based on the number of dwellings proposed, the Project would have a less than significant impact.

The population in San Benito County is estimated to grow by almost 50% county wide over 25 years and a majority of the growth (83%) is expected in rural areas of the county (MBARD, 2017). Since the AQMP accounts for the significant population growth in the rural areas of San Benito County the operational phase of the Project would be considered to be consistent with the AQMP; therefore, would have a less than significant impact.

Based on the scope of the proposed Project, the Project's expected emissions would be well below the MBARD Operational Thresholds of Significance. The proposed Project would not cause a cumulatively considerable net increase of O_3 precursors or PM_{10}; therefore, would have a less than significant impact.

The driveways at the Project site are currently unpaved, unpaved roads are a source of PM_{10} in the form of fugitive dust. As a result of the Project the currently unpaved driveways will be paved reducing the emissions of PM_{10}, for which the NCCAB is currently in nonattainment for.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The Project is located in a rural area of the NCCAB, with surrounding land use primarily consisting of cattle ranches and associated grazing land. The closest residential home to the Project is approximately 400 feet to the west northwest. The construction phase of the Project would be temporary in duration and located at a sufficient distance to residential homes that emissions from construction equipment that would cause odors would be short in duration and limited to the immediate Project area; therefore, the construction phase of the Project would have a less than significant impact. The operational phase of the Project is single and multifamily residential. Odors that would be expected from residential use would be primarily from cooking and to a lesser extent from exhaust from vehicle trips to and from

the Project site. Odors from cooking would be limited to the Project site and odors from vehicle exhaust would be highly intermittent and limited to the Project site and San Juan Canyon Road; therefore, the operational phase of the Project would have a less than significant impact.

3.3.4 Mitigation Measures

Implementation of the following mitigation measure would reduce potential Project-related impacts to air quality to less than significant:

- MM AQ-1: Standard Dust Control Measures

3.4 BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☒	☐	☐
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 Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	☐	☐	☒	☐

3.4.1 Existing Conditions

3.4.1.1 Methodology

Desktop Review. Padre reviewed various databases and literature to determine existing conditions of the Project site and surrounding region, and to identify special-status plants, wildlife, and habitats with the potential to occur within or in the vicinity of the Project site. The following sources were reviewed:

- U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation (IPaC) Resource List for the Project site.
- USFWS National Wetlands Inventory (NWI) Query for the Project site.

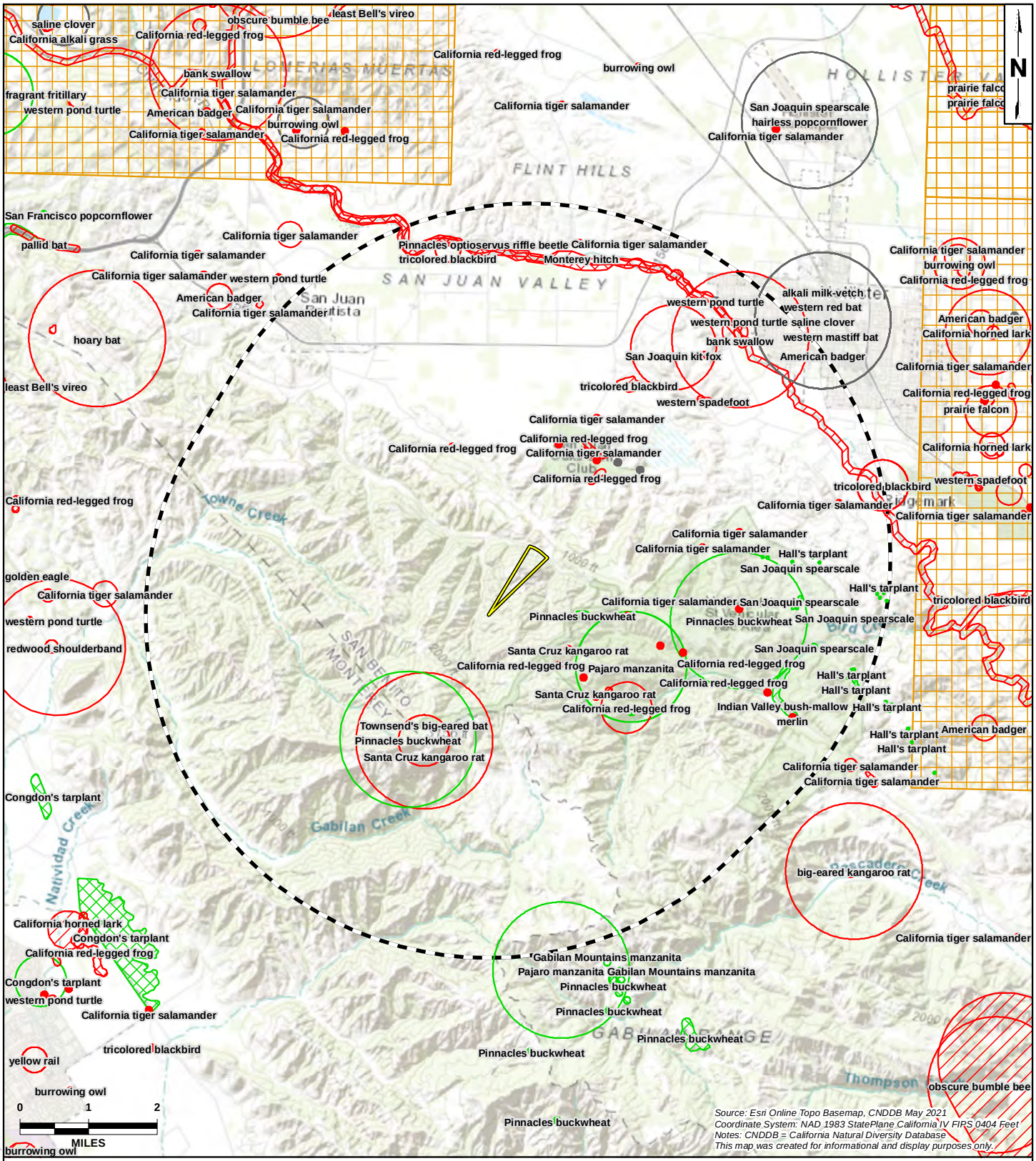
- USFWS Threatened and Endangered Species Active Critical Habitat Report, Environmental Conservation Online System (ECOS) for the Project region.
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) 5-Mile Query for the Project site (Figure 3.4-1).
- California Native Plant Society Online Inventory of Rare and Endangered Plants of California (USGS 7.5' Quadrangles: Hollister and San Juan Bautista).
- Biological Assessment Letter-Report for the Wilson Property, San Juan Canyon Road, San Juan Bautista, California. 2018. Prepared by Thompson Wildland Management.

Biological Assessment. Thompson Wildland Management (Thompson) completed a biological assessment in September 2018 to document and evaluate impacts to ecological resources within the Project site from past non-permitted grading activities (Appendix B). This assessment was focused on the impact areas within the Project site and included a reconnaissance-level survey of the habitat and vegetation communities within the Project site.

3.4.1.2 Site Conditions and Habitat

This section includes a general description of the site conditions and vegetation/habitat observed and documented within the Project site during the biological assessment completed by Thompson in 2018. The acreage of the Project site is approximately 128 acres, with approximately 1.91 acres of the site impacted and disturbed from non-permitted grading activities. Non-permitted activities were performed in preparation for the construction of two proposed building sites located near the main entrance of the property off of San Juan Canyon Road, as well as to widen existing narrow roads that were already present on the property but were overgrown with vegetation. Impacts to the Project site from grading activities included vegetation clearing/removal, soil disturbance, and removal of a minimum of 30 six-inch diameter at breast height (DBH) or larger oak trees (Thompson, 2018).

The terrain of the Project site is mainly comprised of steep slopes, ridges, and canyons, with some drainages present throughout the Project site. The Project site is located within a mature, mixed woodland habitat dominated by coast live oak (*Quercus agrifolia*), black oak (*Quercus kelloggii*), and a dense understory of scrub vegetation. With the exception of a few small clearings, canopy cover was relatively dense throughout the well-established woodland (Thompson, 2018).



Source: Esri Online Topo Basemap, CNDDB May 2021
Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Notes: CNDDB = California Natural Diversity Database
This map was created for informational and display purposes only.

LEGEND:

- Project Site Buffer - 5 miles
- Project Site Boundary

CNDDB Occurrences

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

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PROJECT NAME: WILSON PROPERTY
4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA
SAN BENITO COUNTY, CA

PROJECT NUMBER: 2002-7192

DATE: May 2023

CDFW CNDDB RESULTS

FIGURE 3.4-1

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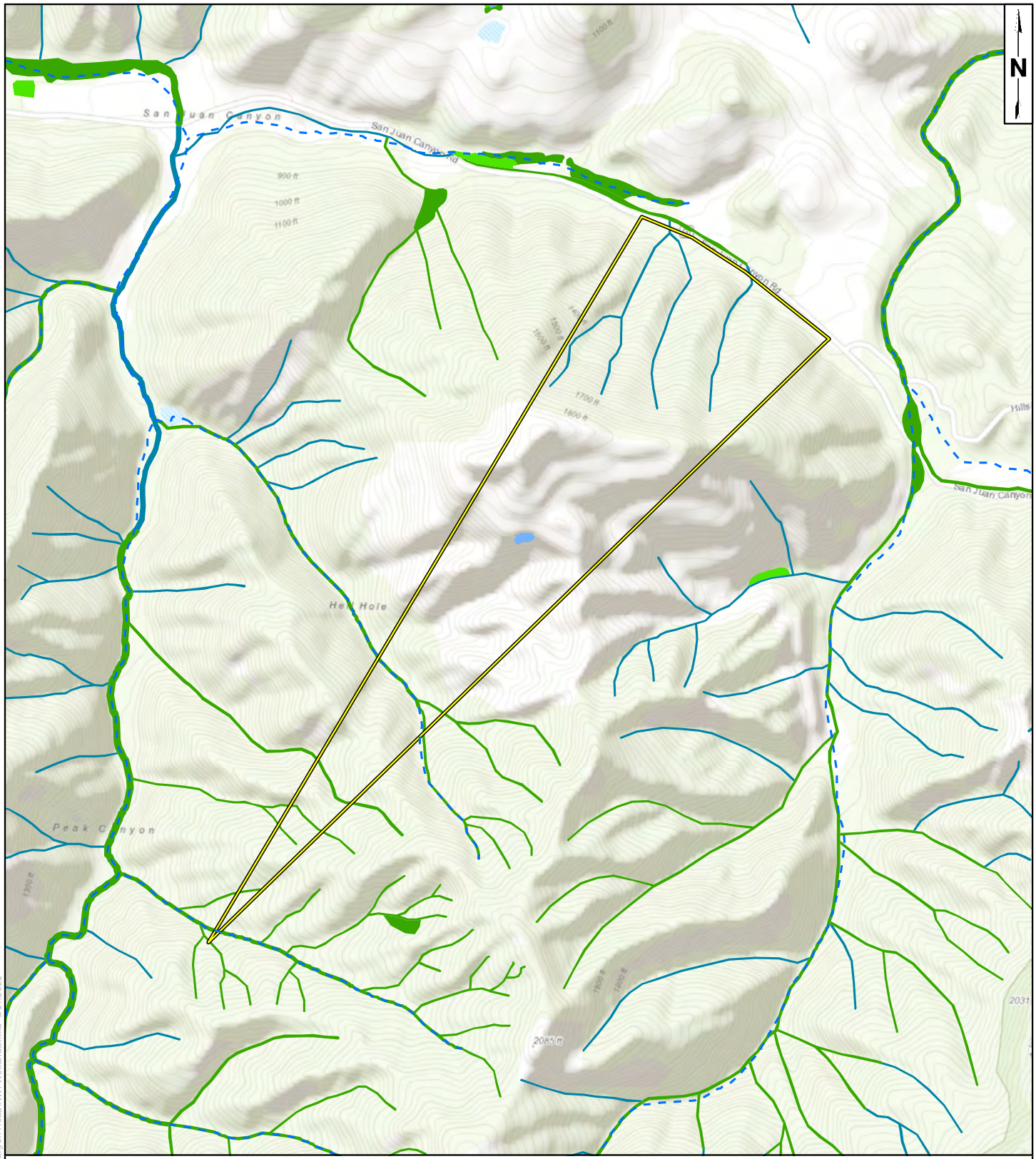
The understory scrub vegetation within the Project site primarily consisted of the following native plant species: California buckeye (*Aesculus californica*), blue elderberry (*Sambucus nigra*), poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), coffeeberry (*Frangula californica*), Pacific blackberry (*Rubus ursinus*), sticky monkey flower (*Mimulus aurantiacus*), common snowberry (*Symphoricarpos albus*), ocean spray (*Holodiscus discolor*), coyote bush (*Baccharis pilularis*), bush lupine (*Lupinus* sp.), deer weed (*Acmispon glaber*), California honeysuckle vine (*Lonicera hispidula*), wild cucumber (*Echinocystis lobata*), hedge nettle/wood mint (*Stachys bullata*), common yarrow (*Achillea millefolium*), California bee plant (*Scrophularia californica*), common mugwort (*Artemisia vulgaris*), vetch (*Vicia americana*), Indian paintbrush (*Castilleja coccinea*), yerba buena (*Clinopodium douglasii*), Miner's lettuce (*Claytonia perfoliata*), giant wildrye (*Elymus condensatus*) and several species of ferns (Thompson, 2018).

Non-native understory vegetation commonly observed throughout the Project site during the biological assessment included invasive Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), milk thistle (*Silybum marianum*), tocalote/Maltese star thistle (*Centaurea melitensis*), black mustard (*Brassica nigra*) and exotic annual grasses (e.g., ripgut brome [*Bromus diandrus*], Italian rye [*Festuca perennis*]), all of which are considered noxious weeds that degrade habitat and increase hazardous wildland fire fuel loads (Thompson, 2018).

3.4.1.3 Wetlands

The Project site is located within the Pajaro River watershed and there are multiple drainages intersecting the Project site that are classified as "riverine" wetlands or "freshwater forested/shrub" wetlands with the USFWS NWI (Figure 3.4-2) (USFWS, 2009). Three of these "riverine" drainages extend through the proposed Project footprint. One wetland classified as a "freshwater pond" is also present towards the center of the Project site; however, this wetland is located outside of the proposed Project footprint. No wetland delineations that would determine State and Federal jurisdiction have been completed to-date for the wetlands within the Project site; however, these wetlands should be assumed to be jurisdictional (State and federally protected) for environmental planning purposes until determined otherwise.



LEGEND:

- Blueline
- Project Site Boundary

NWI Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

0 500 1,000
FEET

Source: Esri Online Topo Basemap, NWI 2020
Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Notes: NWI = National Wetland Inventory
This map was created for informational and display purposes only.

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USFWS NWI WETLANDS

FIGURE 3.4-2

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3.4.1.4 Sensitive Habitats and USFWS Critical Habitat

Designated riparian habitat is not present within the Project site based on the biological assessment and review of the USFWS NWI (Thompson, 2018; USFWS, 2009). Although wetland delineations have not been completed at the Project site, the NWI wetlands identified within the Project site should be assumed to be jurisdictional and are considered sensitive habitats under the 2035 San Benito County General Plan (General Plan) (2015) and San Benito County Code of Ordinances. In addition, the oak woodland habitat within the Project site is considered a sensitive habitat with the County of San Benito (County).

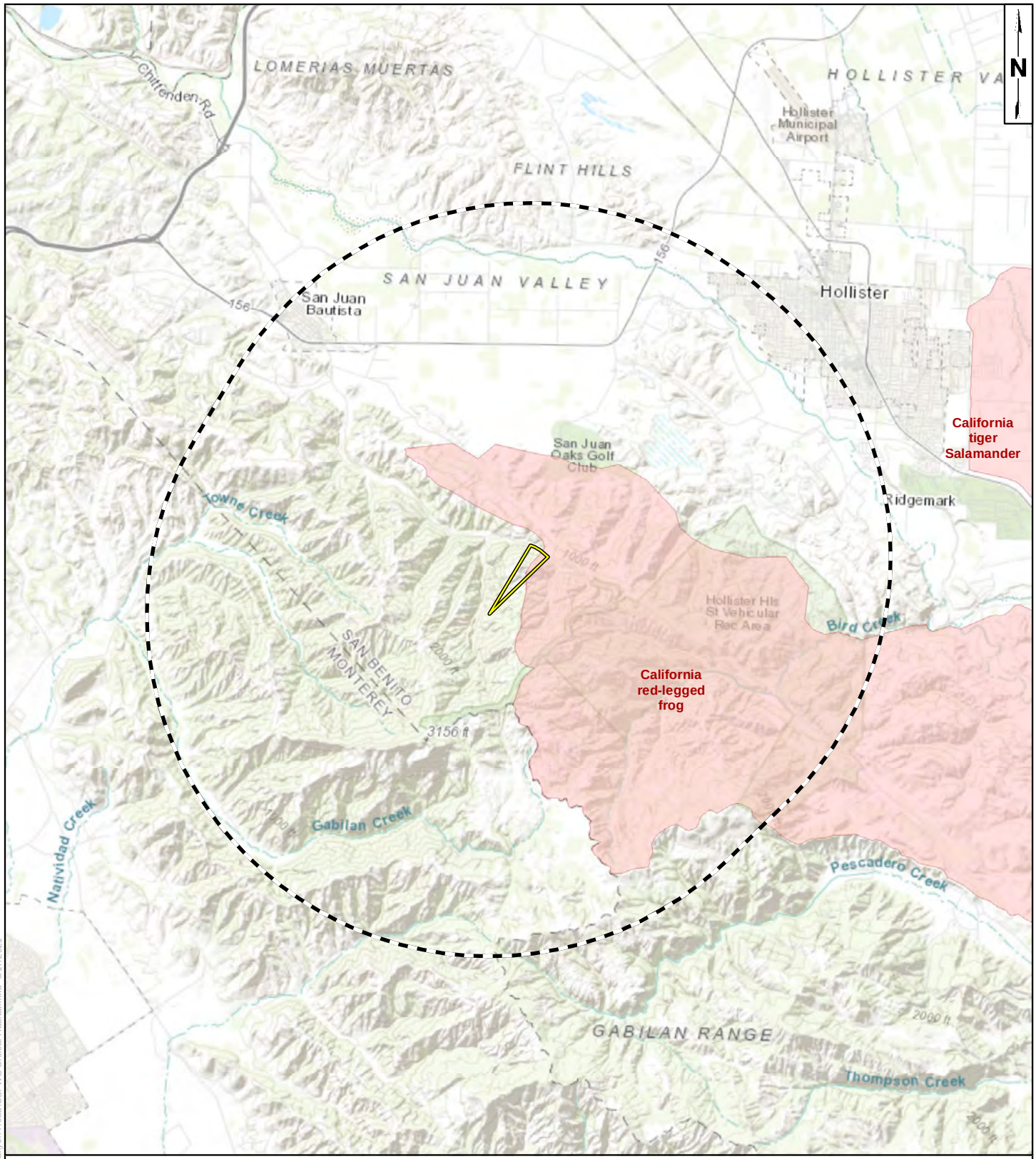
Federally designated critical habitat for California red-legged frog (*Rana draytonii*) (Critical Habitat Unit SNB-1) is mapped along the Gabilan Range and extends into the eastern corner of the Project site (Figure 3.4-3) (USFWS, 2021a). The eastern portion of the proposed Project footprint also appears to overlap with the California red-legged frog critical habitat and unpermitted grading activities could have occurred within the critical habitat in the past. Critical habitat for California tiger salamander is located approximately six miles east-northeast of the Project site in Hollister Valley (Unit 15a) (USFWS, 2021a).

3.4.1.5 Special-Status Species

Special-status species are those plants or animals listed, proposed for listing, or candidates for listing as endangered or threatened under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA); animals designated as “Species of Special Concern”, “Special Animals”, “Fully Protected”, or “Watch List” by CDFW; and plants with a California Rare Plant Rank (CRPR) of 1 or 2 by the California Native Plant Society (CNPS).

Queries of the USFWS IPaC (USFWS, 2021b), CDFW CNDDB (CDFW, 2021), and CNPS Online Inventory of Rare and Endangered Plants of California (CNPS, 2021) were conducted to obtain comprehensive information regarding special-status species considered to have potential to occur in the Project region. This background review identified 26 special-status wildlife species and 17 special-status plant species with potential to occur in the region. Of these 43 special-status species, 11 animals and 6 plants were determined to have some potential to occur on the site based on suitable habitat and regional documented occurrences.

Special-status wildlife species with potential to occur at the Project site include California red-legged frog, California tiger salamander (*Ambystoma californiense*), Coast Range newt (*Taricha torosa*), western spadefoot (*Spea hammondii*), western pond turtle (*Emys marmorata*), merlin (*Falco columbarius*), California condor (*Gymnogyps californianus*), Townsend’s big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillii*), and American badger (*Taxidea taxus*). Special-status plant species with potential to occur at the Project site include Pajaro manzanita (*Arctostaphylos pajaroensis*), Hall’s tarplant (*Deinandra halliana*), Pinnacles buckwheat (*Eriogonum nortonii*), Indian Valley bush-mallow (*Malacothamnus aboriginum*), Monterey spineflower (*Chorizanthe pungens* var. *pungens*), and fragrant fritillary (*Fritillaria liliacea*).



LEGEND:

Project Site Buffer - 5 miles | Project Site Boundary | USFWS Critical Habitat

0 1 2
MILES

Source: Esri Online Topo Basemap, USFWS 2020
Coordinate System: NAD 1983 StatePlane California IV FIPS 0404 Feet
Notes: USFWS = United States Fish and Wildlife Service
This map was created for informational and display purposes only.

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USFWS CRITICAL HABITAT

FIGURE 3.4-3

Z:\GIS Projects\GIS Maps\Map Project\San Juan Canyon Road\USFWS Critical Habitat.mxd 6/17/2021

3.4.1.6 Wildlife Corridors

Wildlife migration corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Migration corridors may be local, such as those between foraging and nesting/denning areas, or they may be regional in nature. Migration corridors are not unidirectional access routes; however, reference is usually made to source and receiver areas in discussions of wildlife movement networks. "Habitat linkages" are migration corridors that contain contiguous strips of native vegetation between source and receiver areas. These natural linkages provide cover and forage sufficient for temporary inhabitation by a variety of ground-dwelling animal species. Wildlife migration corridors are essential to the regional fitness of an area as they provide avenues of genetic exchange and allow animals to access alternative territories as fluctuating dispersal pressures dictate.

The Project site and surrounding vicinity contains relatively continuous oak woodland and scrub habitats and sits at the northern end of the Gabilan Range, which is considered a critical habitat linkage that connects to the Santa Cruz Mountains and Diablo Ranges (San Benito County, 2015). Based on location and habitat present within the Project site, the Project site has the potential to support local and/or regional wildlife movement through the region.

3.4.2 Impact Analysis

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?

Less than Significant with Mitigation. The background review of the USFWS IPaC (USFWS, 2021b), CDFW CNDDB (CDFW, 2021), and CNPS Online Inventory of Rare and Endangered Plants of California (CNPS, 2021) identified 26 special-status wildlife species and 17 special-status plant species with potential to occur in the region. Of these 43 special-status species, the following 11 animals and six plants were determined to have some potential to occur within the Project site based on suitable habitat and regional documented occurrences: California red-legged frog (federally threatened [FT], and species of special concern [SSC]), California tiger salamander (FT, State threatened [ST], watch list [WL]), Coast Range newt (SSC), western spadefoot (SSC), western pond turtle (SSC), merlin (WL), California condor (federally endangered [FE], State endangered [SE]), Townsend's big-eared bat (SSC), western mastiff bat (SSC), western red bat (SSC), American badger (SSC), Pajaro manzanita (CRPR 1B.2), Hall's tarplant (CRPR 1B.2), Pinnacles buckwheat (CRPR 1B.3), Indian Valley bush-mallow (CRPR 1B.2), Monterey spineflower (CRPR 1B.2), and fragrant fritillary (CRPR 1B.2). The remaining 26 species are not expected to occur within the Project site based on the lack of suitable habitat or the Project site being outside the geographic range of the species. In addition, suitable habitat/substrate is present within the Project site for a variety of nesting birds, which are protected under the California Fish and Game Code (Section 3503).

3.4.2.1 Special-Status Amphibians and Reptiles

California red-legged frog (FT), California tiger salamander (FT, ST), coast range newt (SSC), western spadefoot (SSC), and western pond turtle (SSC) have all been documented within five miles of the Project site (CDFW, 2021) and have the potential to occur within the wetlands and/or surrounding upland habitat identified throughout the Project site. Federally designated critical habitat for California red-legged frog also extends into the eastern corner of the Project site. If present, these species could have been significantly impacted (i.e., injury or mortality) during previous unpermitted grading activities. These species also have the potential to be significantly impacted by additional disturbance/extension of the impact footprint during proposed Project activities in the same manner or during overland movement during rain events.

Project activities may have significantly impacted the habitat of special-status species listed above; therefore, implementation of MM BIO-1 – Conservation Banking will reduce the impact to less than significant.

MM BIO-1: Conservation Banking. The applicant shall purchase mitigation credits for California red-legged frog to offset impacts to special-status amphibians and reptiles that may have been impacted during unpermitted Project activities. The mitigation credits shall be purchased from a conservation bank authorized by USFWS to serve the Project region. The applicant shall purchase credits at a ratio of 3:1 credit to permanent disturbance ratio, and 1:1 credit to temporary disturbance ratio. Based on aerial photography review, the Project permanently disturbed approximately 1.76 acres of suitable California red-legged frog habitat.

3.4.2.2 Special-Status Birds and Nesting Birds

California condor (FE, SE) has not been documented within five miles but has been documented within the Gabilan Range approximately 25 miles southeast of the Project site. Potential suitable nesting/roosting habitat (i.e., mountainous rock cliffs/walls) and foraging habitat (i.e., chaparral and grasslands) is present within the Project region (CDFW, 2021). The Project site also contains suitable foraging and nesting habitat for a variety of passerine species and raptor species, including merlin (WL) (documented within five miles of the Project site), other falcons, hawks, and eagles. In addition to Federal or State listings (i.e., endangered or threatened), all native birds in California are protected by Section 3503 of the California Fish and Game Code, which specifically protects active nests of native birds and raptors. Previous unpermitted grading activities and vegetation/tree removal could have significantly impacted (i.e., nest/egg destruction or damage, or injury or mortality of nestlings) common and/or special-status nesting birds and raptors, and future proposed Project activities could potentially impact these species in the same manner, if additional disturbance extends past the existing impact footprint.

3.4.2.3 Special-Status Mammals

Special-status bats including Townsend's big-eared bat (SSC), western mastiff bat (SSC), and western red bat (SSC), have varying levels of roosting preferences (e.g., cliff faces/crevices, caves, trees, tunnels, buildings, other human-made structures, etc.) but in general will utilize woodland habitats for roosting or foraging. These species have been documented within five miles and suitable habitat is present within the Project site (CDFW, 2021). Previous unpermitted grading activities and tree removal could have significantly impacted bats in the form of injury or

mortality if bats were present during tree removal and future proposed Project activities could potentially impact these species in the same manner; however, no additional oak tree or native tree removal is proposed for future Project activities.

American badger (SSC) can be found in a multitude of habitats with friable soils including forest and woodland habitats and have been documented within five miles of the Project site (CDFW, 2021). If present, these species could have been significantly impacted (i.e., injury or mortality) during previous unpermitted grading activities and could be significantly impacted by future proposed Project activities in non-developed areas of the Project site.

3.4.2.4 Special-Status Plants

Pajaro manzanita (CRPR 1B.2), Hall's tarplant (CRPR 1B.2), Pinnacles buckwheat (CRPR 1B.3), Indian Valley bush-mallow (CRPR 1B.2), Monterey spineflower (CRPR 1B.2), and fragrant fritillary (CRPR 1B.2) have all been documented within the region and generally occur in woodland/scrub habitats (CDFW, 2021). If present within the Project site, these plant species could have been significantly impacted (i.e., damaged or removed) by previous unpermitted grading activities. These species also have the potential to be significantly impacted by additional disturbance/extension of the impact footprint during proposed Project activities in the same manner.

3.4.2.5 Future Impacts to Special-Status Species

The Applicant had previously completed unpermitted grading and oak tree removal activities within the Project site, which could have significantly impacted the special-status species listed above. Going forward, the Applicant is seeking after-the fact permit issuance for partially constructed site improvements and is proposing to complete Project construction.

Future proposed Project activities could significantly impact the special-status species listed above; however, implementation of MM BIO-2 through MM BIO-9 would result in protection to sensitive species and habitats, resulting in a less than significant impact.

MM BIO-2: Worker Environmental Awareness Program (WEAP). Prior to initiation of construction activities (including staging and mobilization, or any ground disturbing activities), all personnel associated with project construction shall complete WEAP training, conducted by a qualified biologist, to aid workers in recognizing special-status resources that may occur in the project site. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area, including applicable permit conditions. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting their completion of WEAP training and understanding of the information presented in the training.

MM BIO-3: Construction Best Management Practices. The following construction Best Management Practices (BMPs) shall be incorporated into all grading and construction plans:

1. Daily construction work schedules shall be limited to daylight hours only and outside of rain events to avoid impacts to wildlife.
2. A speed limit of 20 mph or less shall be maintained on dirt roads at all times.
3. Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from areas that drain into waters, wetlands (i.e., the drainages within the Project site). Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site.
4. All equipment and vehicles shall be checked and maintained daily to prevent spills of fuel, oil, and other hazardous materials. Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition.
5. Drip pans shall be placed under all stationary vehicles and mechanical equipment.
6. All equipment operators shall check inside engine/other compartments and beneath equipment for wildlife each day prior to start of work.
7. All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week.
8. No pets are permitted on project site during construction.

MM BIO-4: Special-Status Plant Avoidance. In the event grading activities, vegetation removal, and/or other ground disturbance will extend past the existing impact footprint into undeveloped/undisturbed habitat, a springtime, pre-activity botanical survey of the proposed impact areas shall be conducted by a qualified biologist to document any potential special-status plants in the Project area. An avoidance buffer of 50 feet or smaller (decided at the discretion of the qualified biologist and the County based on plant status), shall be established around special-status plants identified during the survey.

MM BIO-5: California Red-Legged Frog and Other Special-Status Wildlife Avoidance.

1. Pre-Construction Survey. Within 24 hours prior to the start of any construction activities (including staging and mobilization, ground disturbing activities), a qualified biologist shall conduct pre-construction surveys within the Project work area and suitable habitat on-site. If no special-status wildlife (e.g., California red-legged frog, California tiger salamander, pond turtle, American badger, etc.) are observed and Project activities will not extend past the existing impact footprint from previous unpermitted grading activities, no further surveys or monitoring are necessary.
2. Biological Monitoring. In the event grading activities, vegetation removal, and/or other ground disturbance will extend past the existing impact footprint into undeveloped/undisturbed habitat, biological monitoring will be required in addition to the pre-construction survey. A qualified biologist, familiar with California red-legged frog and other special-status wildlife listed in the Project IS/MND, shall be present during any additional initial ground disturbance activities in undeveloped/undisturbed habitat. The biological monitor shall have the authority

to halt and direct construction activity within the vicinity of any wildlife until the time the individual has left the construction site and is out of harm's way.

3. Wildlife Conflicts During Construction. If any California red-legged frog or other special-status wildlife are identified dispersing through the work area, construction and grading in these areas shall be halted, and the individuals will be allowed to leave the work area of their own accord. A qualified biologist shall be contacted to monitor the individual and determine when the individual is safely out of harm's way and off the project site. The qualified biologist shall have the authority to halt and direct construction activity within the vicinity of the individual until the time the individual has left the construction site.

4. Reporting. A report of survey and monitoring efforts shall be submitted to the County Resource Management Agency, Planning and Land Use Division within 30 days of completion of construction activities to document compliance. The report shall include the dates, times, weather conditions, aquatic and terrestrial habitat conditions, agency consultation if individuals are discovered, and personnel involved in the surveys/monitoring. Take of California red-legged frog and/or California tiger salamander, including disturbance, handling or relocating, is illegal without State and/or Federal take authorization.

MM BIO-6: Nesting Bird Surveys and Avoidance. Project-related ground disturbance activities, including vegetation removal, shall not occur during the general avian nesting season (February 1 – August 31), if feasible. If breeding season avoidance is not feasible, the applicant shall retain a qualified biologist to conduct a pre-construction nesting bird survey to determine the presence/absence, location, and status of nests on or adjacent to the project site. The survey shall include a 0.25-mile buffer for eagles and California condors, and 500-foot buffer for raptors and passerines. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the California Fish and Game Code, nesting bird surveys shall be performed not more than 14 days prior to any additional future vegetation clearance.

In the event that active nests are discovered, a 0.25-mile radius avoidance buffer shall be established for eagles and California condor, a 300-foot buffer for other raptors, and 50-foot radius avoidance buffers for all other birds shall be established around such active nests and no construction or personnel shall be allowed within the buffer areas until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No project activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring between September 1 and January 31. Reductions of avoidance buffers may be implemented in consultation CDFW and/or USFWS.

MM BIO-7: Wetland Avoidance. All wetlands documented with the NWI that occur within the Project footprint should be assumed to be jurisdictional and shall be avoided by a minimum of 25 feet during construction activities. Wetland delineation to determine

State/Federal jurisdiction for these wetlands may be conducted by a qualified biologist in order to justify adjustment or elimination of wetland avoidance buffers.

MM BIO-8: Oak Tree Mitigation. As a result of the unauthorized removal of an estimated 30 native species oak trees, the Applicant shall plant 20 one to five gallon coast live oak (*Quercus agrifolia*) seedlings/saplings and 10 one to five gallon black oak (*Quercus kelloggii*) seedlings/saplings within the Project site to mitigate impacts associated with unpermitted tree removal and disturbance to woodland habitat, at the direction of the County. These 30 replacement plantings shall survive a two-year monitoring period to satisfy County mitigation requirements (Thompson, 2018). A monitoring report documenting oak tree planting/monitoring efforts and seedling/sapling survival shall be submitted to the County Resource Management Agency (RMA), Planning and Land Use Division annually to document compliance with the mitigation requirements.

MM BIO-9: Habitat Restoration Plan. The applicant shall prepare and submit a Habitat Restoration Plan for approval by the County RMA. The Habitat Restoration Plan shall include, but shall not be limited to the following components:

- Restoration performance criteria to restore disturbed areas outside of the building sites and driveways to pre-project conditions;
- Goals of the restoration site (types and areas of habitat to be established, restored, enhanced, and/or preserved;
- Implementation plan for the restoration site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan);
- Maintenance activities during monitoring period (activities, responsible parties, schedule);
- Monitoring plan for the restoration site (performance standards, target functions and values, target hydrological regime, target jurisdictional and non-jurisdictional acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports); and
- Contingency measures for the restoration if restoration is unsuccessful.

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 Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation. Federally designated critical habitat for California red-legged frog (Critical Habitat Unit SNB-1) extends into the eastern corner of the Project site (Figure 7) (USFWS, 2021a) and the east end of the proposed Project footprint appears to overlap with the California red-legged frog critical habitat. Although critical habitat for California red-legged frog is present within the Project site, the Project site is considered private property and the Project does not require federal permits for previous or future grading work, as proposed. With implementation of MM BIO-7, impacts to wetlands (where federal jurisdiction may occur) will be avoided.

Oak woodland habitat is also present throughout the Project site and is considered a sensitive natural community that the County is invested in protecting under their General Plan (2015) and Code of Ordinances. Significant impacts to the oak woodland habitat at Project site from previous unpermitted grading activities included vegetation clearing/removal, soil disturbance, and removal of a minimum of 30 six-inch DBH or larger oak trees (Thompson, 2018). Going forward, the Applicant is seeking after-the fact permit issuance for partially constructed site improvements and is proposing to complete Project construction. No additional native tree removal is proposed for Project completion activities and the Applicant has agreed to plant oak trees to mitigate past impacts at the direction of the County. Implementation of MM BIO-8 would mitigate oak tree impacts, resulting in a less than significant impact.

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

Less than Significant with Mitigation. Multiple drainages intersect the Project site that are classified as "riverine" wetlands or "freshwater forested/shrub" wetlands with the USFWS NWI (Figure 3.4-2) (USFWS, 2009). One wetland classified as a "freshwater pond" is also present towards the center of the Project site. No wetland delineations that would determine State and Federal jurisdiction have been completed to-date for the wetlands within the Project site; however, these wetlands should be assumed to be jurisdictional (State and federally protected) for environmental planning purposes until determined otherwise. Previous unpermitted grading activities could have significantly impacted wetlands within the Project site and future proposed Project activities could significantly impact these wetlands in the same manner; however, implementation of MM BIO-7 would mitigate wetland impacts, resulting in a less than significant impact.

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?*

Less than Significant Impact. The Project site and surrounding vicinity contains relatively continuous oak woodland or scrub habitats and sits at the northern end of the Gabilan Range, which is considered a critical habitat linkage that connects to the Santa Cruz Mountains and Diablo Ranges (San Benito County, 2015). Based on location and habitat present within the Project site, the Project site has the potential to support local and/or regional wildlife movement through the region; however, due to the nature of the Project (i.e., private residences with associated infrastructure and roads) and lack of significant waterways that would support fish migration, the proposed Project would not significantly interfere with the movement of any native resident or migratory fish or wildlife species or affect any migratory corridors or nursery sites, resulting in a less than significant impact.

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

Less than Significant with Mitigation. The County Code of Ordinance requires discretionary permits for woodland removal and also requires that woodland habitats be retained at specific densities based on existing canopy cover and slope incline. Significant impacts to the

oak woodland habitat at Project site from previous unpermitted grading activities included removal of a minimum of 30 six-inch DBH or larger oak trees (Thompson, 2018) and violations issued by the County included unpermitted removal of native trees and impacts to woodland habitat within the Project site. No additional native tree removal is proposed for future Project completion activities and the Applicant has agreed to plant oak trees to mitigate past impacts at the direction of the County. Implementation of MM BIO-8 would mitigate oak tree impacts, resulting in a less than significant impact.

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?

Less than Significant Impact. The Project site is located within the Habitat Conservation Plan (HCP) Preliminary Study Area, as defined by County Ordinance 541, and shall be subject to an HCP interim mitigation fee upon construction per this ordinance, resulting in a less than significant impact.

3.4.3 Mitigation Measures

Implementation of the following mitigation measure would reduce potential Project-related impacts regarding biological resources to less than significant:

- MM BIO-2: Worker Environmental Awareness Program (WEAP)
- MM BIO -3: Construction Best Management Practices
- MM BIO-4: Special-Status Plant Avoidance
- MM BIO-5: California Red-Legged Frog and Other Special-Status-Species Wildlife Avoidance
- MM BIO-6: Nesting Bird Survey and Avoidance
- MM BIO-7: Wetland Avoidance
- MM BIO-8: Oak Tree Mitigation
- MM BIO-9: Habitat Restoration Plan

3.5 CULTURAL RESOURCES

CULTURAL RESOURCES - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

3.5.1 Existing Conditions

Analysis in this section is based on a search of cultural resource records at the California Historical Resources Information System (CHRIS), Northwest Information Center (NWIC) located at Sonoma State University. This records search was conducted to identify previously completed cultural resources studies and previously recorded cultural resources within a 0.25-mile radius of the Project site. The CHRIS search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list.

Padre requested an expedited records search on November 2, 2020 (File No. 20-0844) and received the results on November 12, 2020. The NWIC records search indicates that the Project site has not been examined for cultural resources; however, three cultural resource studies have been completed within a 0.25-mile radius of the Project site. The NWIC records search did not identify any cultural resources within the Project site. One previously recorded resource, P-35-000055 (CA-SBN-54H), has been identified within a 0.25-mile radius of the Project site. P-35-000055 is a historic-aged cemetery with nine burials dating from 1951 to 1968.

Due to the disturbed nature of the Project site, a pedestrian survey was not completed.

3.5.2 Impact Analysis

a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. The records search did not identify any historical resources on the Project site as defined by CEQA. Therefore, no impact would occur.

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

Less Than Significant with Mitigation. The records search did not identify any archaeological resources on the Project site and the closest cultural resource is at least 0.25 mile from the Project site. Accordingly, there are no known archaeological resources as defined in Section 15064.5 that would be impacted by Project activities.

While there are no records of known resources, the Project site has not been examined with a pedestrian survey and the ground surface has been recently disturbed. It is possible that unknown resources exist on-site below the ground surface. Project construction activities involving excavation or ground disturbance could potentially encounter and damage or destroy unidentified cultural material or deposits within the Project site, if such material or deposits exist. Impacts would be potentially significant if resources are damaged or destroyed. Accordingly, implementation of MM CUL-1 would mitigate impacts to unknown cultural resources, resulting in a less than significant impact.

MM CUL-1: Treatment of Unknown Cultural Resources. In the event unknown cultural resources are exposed or unearthed during Project construction, all earth disturbing work within the vicinity of the find shall be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. If the archaeologist determines that the resource is an "historic resource" or "unique archaeological resource" as defined by California Environmental Quality Act Guidelines Section 15064.5 and avoidance is not feasible, further evaluation by the archaeologist shall occur. The archaeologist's recommendations for further evaluation may include a Phase II testing and evaluation program to assess the significance of the site. Resources found not to be significant will not require mitigation. Impacts to sites found to be significant shall be mitigated through implementation of a Phase III data recovery program. After the find has been mitigated appropriately, work in the area may resume. A local Native American representative shall monitor any mitigation work associated with prehistoric cultural resources.

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

Less Than Significant with Mitigation. The records search did not identify any cemeteries or cultural resources within the Project site; however, P-35-000055, a historic-aged cemetery, is within 0.25 mile. While it is unlikely that human remains would be encountered in the Project site, damage to human remains would be a potentially significant impact. Implementation of MM CUL-2 would reduce this potential impact by ensuring that if human remains are encountered, the find will be reported to the County Coroner, resulting in a less then significant impact. If the remains are determined to be Native American in origin, the Native American Heritage Commission (NAHC) would be contacted, and the remains would be treated appropriately.

MM CUL-2: Unanticipated Discovery of Human Remains. If human remains are encountered, all provisions provided in California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98 shall be followed. Work shall stop within 100 feet of the discovery, and both an archaeologist and County staff shall be contacted within 24 hours. The archaeologist shall consult with the County Coroner. If human remains are of Native American origin, the County Coroner shall notify the NAHC within 24 hours of this determination, and a Most Likely Descendent shall be identified. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented.

3.5.3 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential Project-related impacts regarding cultural resource impacts to less than significant:

- MM CUL-1: Treatment of Unknown Cultural Resources
- MM CUL-2: Unanticipated Discovery of Human Remains

3.6 ENERGY

ENERGY - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Existing Conditions

Monterey Bay Community Power is Central Coast Community Energy (CCCE) as of September 2020. CCCE is a locally controlled public agency supplying clean and renewable electricity for residents and businesses in Monterey, San Benito, parts of San Luis Obispo and Santa Cruz Counties. CCCE is based on a local energy model called community choice energy that partners with the local utility (Pacific Gas and Electric [PG&E] or Southern California Edison [SCE]) which continues to provide consolidated billing, electricity transmission and distribution, customer service and grid maintenance services (Central Coast Community Energy, 2020).

3.6.2 Impact Analysis

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

Less than Significant Impact. The Project involves use of heavy construction equipment powered by petroleum-based fuel sources. As such, construction activities would result in the consumption of non-renewable fossil fuels (e.g., gas and diesel) for the operation of construction vehicles and equipment. These activities would be temporary in nature.

Energy from CCCE would be used for the proposed residences but would not require the need for development of new sources of energy. A less than significant impact would result.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency; therefore, no impact would result.

3.6.3 Mitigation Measures

The Project would not result in significant impacts on energy; therefore, no mitigation is required.

3.7 GEOLOGY AND SOILS

GEOLOGY AND SOILS - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Directly or indirectly cause 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.	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☒	☐	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Existing Conditions

A Geotechnical Investigation Report was prepared for the Project site by Soil Surveys Group, Inc. in September 2018 (Appendix C). Five borings were drilled on February 20, 2018, for geotechnical investigation purposes. Laboratory tests were subsequently made on driven soil core samples taken from the borings to determine the near surface and subsurface soil conditions and suitability for the construction of the proposed new residence, barn, storage buildings, driveways, and water system (Soil Surveys Group, Inc., 2018). Soil Surveys Group identified that shallow soils at the Project site consist of medium dense, slightly silty, fine to coarse grained decomposed granitic sand and gravels to a depth of three feet, underlain by medium dense to

very dense, fine to coarse grained decomposed granitic sands and gravels to a depth of 15-18 feet. Below this depth the soils are very dense, slightly clayey, silty, fine to coarse grained granitic sands and gravels to 20-23 feet, overlying very dense granitic rock. Shallow soils are moderately plastic and slightly to moderately expansive. No free groundwater was observed in the five borings advanced by Soil Surveys Group.

Soils at the Project site are identified as Sheridan coarse sandy loam, located on 30 to 75 percent slopes. This soil is characterized as a shallow, well-drained soil with high runoff and very low water available water capacity (NRCS, 2021).

The Project Site is located within San Benito County, an area of high seismic activity with multiple active faults. The San Andreas fault zone is located approximately 0.25 miles northeast of the Project site (CGS, 2021). The San Andreas fault zone is an active fault zone with the potential to produce significant ground-shaking, however, the risk of ground rupture on-site is low as there are no known fault traces occurring at the Project site.

The Project site is located on a steep hillside composed of granitic rock. Seismically-induced settlement and landslides could occur at the Project site as a result of a significant earthquake along the San Andreas fault or other nearby faults. Seismically-induced liquefaction potential is low at the Project site due to the shallow soils and the absence of shallow groundwater.

Erosion potential at the Project site is high due to the steep slopes (30-75%) occurring in close proximity to the existing or proposed building sites. Existing conditions at the Project site have been exacerbated due to vegetation removal and grading on steep slopes. Near-vertical slopes occur in several cut areas adjacent to the building sites, with signs of soil erosion visible at several locations. The applicant has installed some erosion control devices along fill slopes; however, erosion along cut slopes and roadways is apparent.

The Soil Survey Group completed a percolation investigation at the Project site (Soil Survey Group, 2020). The Soil Survey Group determined that the proposed septic area was suitable for the proposed use with implementation of their recommendations for leach field design.

3.7.2 Impact Analysis

a. Directly or indirectly cause 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.

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

Less than Significant with Mitigation. The as-built residence was constructed without permits, engineered plans, or inspection during construction. Soil Survey Group (SSG) (2018) concluded that the Project site was suitable for the proposed development if the Project complied with the California Building Code and the recommendations in the SSG geotechnical report were followed. Additionally, grading completed at the Project site to-date has resulted in over-steepened slopes and barren slopes susceptible to erosion and landsliding. Implementation of MM GEO-1 would address non-permitted construction and future construction activities on-site, resulting in a less than significant impact.

MM GEO-1: Construction Permits. The applicant shall obtain after-the-fact construction permits with the County RMA for the existing residence, completed on-site grading, and septic systems. The applicant shall contract with a California-licensed civil engineer to inspect construction completed to-date and recommend remedial measures to be completed by the applicant. The engineer shall certify that the as-built construction conforms with the California Building Code.

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

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

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

Less than Significant with Mitigation. Unpermitted grading at the Project site has resulted in over-steepened cut slopes, minor landsliding, and erosion and sedimentation impacts downslope of the disturbed areas. Additionally, informal trail building within the Project site has resulted in denuded, unstable slopes with significant drainage, erosion, and sedimentation impacts. Proposed construction activities would likely include additional grading needed to stabilize existing cut slopes, improve site drainage, and control erosion and sedimentation. Implementation of MM GEO-2 and MM BIO-9 would address as-built grading impacts and proposed future grading and construction activities associated with the proposed Project, resulting in a less than significant impact.

MM GEO-2: Grading Plan. The applicant shall prepare an Improvement Plan for grading that addresses existing disturbed areas to stabilize exposed slopes and unstable areas and to manage on-site drainage, and control erosion and sedimentation. The Improvement Plan shall be prepared by a California-licensed civil or geotechnical engineer and submitted to the County RMA for review and approval prior to implementation.

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

Less than Significant with Mitigation. Percolation tests completed at the Project site indicate that a septic system would be a suitable wastewater treatment and disposal method for the proposed residential use of the property. However, the septic leach fields installed to-date were installed without permits and without inspection by the geotechnical engineer to ensure that they complied with the engineer's recommendations, County ordinance, and the State Water

Resources Control Board's requirements for on-site wastewater disposal systems (State Board Order No. 2014-0153-DWQ). Implementation of MM GEO-3 would ensure that the proposed septic system will adequately serve the proposed uses, resulting in a less than significant impact.

MM GEO-3: Septic System Permit. Prior to construction, the applicant shall obtain a permit from the County RMA for the as-built construction of the septic system. A California-licensed civil or geotechnical engineer shall complete a thorough inspection of the leach field to ensure that it conforms with County ordinance and the percolation test report's recommendations.

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

Less than Significant Impact. The Project site is located within an area of igneous granitic rocks, which have very low to no potential to contain paleontological resources. Additionally, no unique geologic feature is known to occur at the Project site. The potential impact to paleontological resources or unique geologic features is anticipated to be less than significant.

3.7.3 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential Project-related impacts regarding Geology and Soils to less than significant:

- MM GEO-1: Construction Permits
- MM GEO-2: Grading Plan
- MM GEO-3: Septic System Permit
- MM BIO-9: Habitat Restoration Plan

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Existing Conditions

Greenhouse Gases (GHGs), defined as any gas that absorbs infrared radiation in the atmosphere, include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorocarbons. These GHGs trap and build up heat in the atmosphere near the earth's surface, commonly known as the Greenhouse Effect. The atmosphere and the oceans are reaching their capacity to absorb CO_2 and other GHGs, leading to significant global climate change in the future. Unlike criteria pollutants and TACs, which are pollutants of regional and local concern, GHGs and climate change are a local, regional, and global issue. There is widespread international scientific consensus that human-caused increases in GHGs have and will continue to contribute to climate change, although there is uncertainty concerning the magnitude and rate of the warming.

Climate change is having and will continue to have widespread impacts on California's environment, water supply, energy consumption, public health and economy. Many impacts already occur, including increased fires, floods, severe storms, and heat waves (California Governor's Office of Planning and Research [CGOPR], 2018). Documented effects of climate change in California include increased average, maximum, and minimum temperatures; decreased spring runoff to the Sacramento River; shrinking glaciers in the Sierra Nevada; sea-level rise at the Golden Gate Bridge; warmer temperatures in Lake Tahoe, Mono Lake, and other major lakes; and plant and animal species found at changed elevations (CGOPR, 2018).

According to the Intergovernmental Panel on Climate Change (IPCC), the concentration of CO_2, the primary GHG, has increased from approximately 280 parts per million (ppm) in pre-industrial times to well over 380 ppm today. CO_2 concentrations are currently increasing about 1.9 ppm/year; present CO_2 concentrations are higher than any time in at least the last 650,000 years. CO_2 is also used as a reference gas for climate change. To account for different GHG warming potentials, emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, if the CO_2 warming potential is set at a reference value of 1, CH_4 has a warming potential of 25 (i.e., 1 ton of methane has the same warming potential as 25 tons of CO_2 [IPCC, 2014]), while nitrous oxide has a warming potential of 298.

To meet both the statewide 2020 GHG reduction target that requires California to reduce its total statewide GHG emissions to 1990 levels (Health & Safety. Code, § 38550), and the 2050 goal of 80 percent below 1990 levels (Executive Order S-3-05), not only must projects contribute to slowing the increase in GHG emissions, but projects should contribute to reducing the State's

GHG output. In order to reach California's GHG reduction targets, per capita emissions would need to be reduced by slightly less than five percent each year from 2020 to 2030, with continued reductions through 2050.

3.8.2 Regulatory Setting

Various entities address this issue area at the State and regional levels. For example, California's 2017 Climate Change Scoping Plan (CARB, 2017) establishes GHG reduction strategies and goals for California's future, focusing on large contributors to state GHG emissions (e.g., power generation and transportation).

Assembly Bill (AB) 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a statewide GHG emissions cap. It requires that statewide GHG emissions be reduced to 1990 levels by 2020. In 2008 and 2014, CARB approved the Scoping Plan and the first update to the Scoping Plan, respectively. In 2016, the California Legislature passed Senate Bill (SB) 32, which established a 2030 GHG emissions reduction target of 40 percent below 1990 levels. In response to SB 32 and the companion legislation of AB 197, CARB approved the 2017 Scoping Plan Update: The Strategy for Achieving California's 2030 GHG Target in November 2017. The 2017 Scoping Plan draws from the previous plans to present strategies to reaching California's 2030 GHG reduction target.

3.8.2.1 Monterey Bay Air Resources District

At the local level, the MBARD is the agency primarily responsible for air quality standards attainment as established by CARB and USEPA. However, the MBARD has not approved GHG significance thresholds for construction or operational emissions. A draft update to the *Guidelines for Implementing the California Environmental Quality Act*, dated February 2016 indicates that a proposed stationary source project will not have a significant GHG impact, if operation of the project will:

- Emit less than the significance threshold of 10,000 metric tons per year ($MTCO_2E$/year), or
- In accordance with the State CEQA Guidelines Section 15064.4(b)(3), the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions [such as, sources subject to the Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms)].

Stationary source projects per MBARD include equipment, processes and operations that require a MBARD permit to operate (PTO). The Project is not a stationary source project and is not required to obtain a PTO, however the significance threshold of 10,000 MTCO2E/year can serve as a GHG comparison for the Project Site as to what GHG emissions level the MBARD considers significant.

Since MBARD does not have an approved GHG significance thresholds for construction or operational emissions MBARD informally recommends the use of the San Luis Obispo Air Pollution Control's (SLOAPCD) GHG significance threshold in the SLOAPCD's 2012 CEQA Air Quality Handbook to compare GHG emissions of proposed projects. The SLOAPCD GHG

significance thresholds that have been established for residential and commercial projects are as follows:

- Bright-Line Threshold of 1,150 $MTCO_2E$/ year, or
- Efficiency Threshold of 4.9 $MTCO_2E$/Service Population (residents + employees)/ year ($MTCO_2E$/SP)

Emissions from construction-only projects (e.g., residential developments, commercial developments, roadways, etc.) would be amortized over the life of the Project and compared to an adopted GHG reduction strategy or the Bright-Line Threshold only.

3.8.2.2 San Benito County General Plan

The San Benito County 2035 General Plan's (General Plan) Health and Safety Element does not provide specific policies regarding GHG emissions, however, does indicate that the County will support California's GHG goals by preparing and adopting a greenhouse gas reduction strategy that meets CEQA Guidelines. To date San Benito County (County) has not prepared or adopted a formal greenhouse gas reduction strategy.

3.8.3 Impact Analysis

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

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The construction phase of the Project (both completed and proposed) would disturb approximately 1.91 acres and has an expected duration of approximately 50-days (10-days for grading and paving activities, and 40-days for construction activities)[3]. The Project would utilize typical construction equipment for grading and construction activities. Construction equipment utilized during grading and paving activities during the construction phase of the Project would be the primary source of GHG emissions. Due to the short duration of the grading and paving activities, GHG emissions for the construction phase of the Project would likely be well below the Bright-Line Threshold of 50 $MTCO_2E$/year. In addition, the construction phase of the Project is temporary and would not result in a cumulatively considerable net increase in GHG emissions over time.

The operational phase of the Project would consist of one approximately 960 square foot single family residential building, one 4,000 square foot multi-use building consisting of two apartments and storage space, approximately 750 linear feet of paved driveway one water well and two septic systems. The Project would produce operational GHG emissions that would be generated primarily from the use of electricity, combustion of propane, vehicle trips to and from the Project site and waste disposal (trash and septic).

Per the U.S. Department of Energy's Energy-Related Carbon Dioxide Emissions by State, 2005–2016 report dated February 2019 a California resident generates approximately 9.2 $MTCO^2E$/yr. Per California Uniform Housing Code Section 503(b) two people may occupy

[3] Includes grading and construction activities that have already been completed.

each bedroom of a residential building, with one additional person occupying the living space. The Project proposes one single family residential building with three bedrooms and one multifamily building with six bedrooms. The Project would potentially add new living space for up to 21 people. Using the approximate GHG emissions per person of 9.2 $MTCO_2E$/yr the Project would be expected to generate operational GHG emissions of approximately 193.2 $MTCO_2E$/yr which is well below the Bright-Line Threshold of 1,150 $MTCO_2E$/ year; therefore, would have a less than significant impact.

3.8.4 Mitigation Measures

The Project would not result in significant impacts to greenhouse gas emissions; therefore, no mitigation is required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Existing Conditions

The Project site is located in a rural area of San Benito County, surrounded by residential uses and open space areas. The Project site is located over seven miles from the Hollister Airport and there are no schools within one-quarter mile of the Project site. Currently, off-road construction equipment and minor amounts of fuel and lubricants are stored on-site.

3.9.2 Impact Analysis

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

Less than Significant Impact. Construction of the Project would involve the use of hazardous materials such as fuels, oils, and other chemicals. The transport, use, storage, and disposal of hazardous materials would be carried out in accordance with Federal and State regulations. These requirements would ensure proper handling of hazardous materials and limit

the chance of release of environmental materials into the environment. Impacts would be less than significant.

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?

Less than Significant Impact. As discussed previously, construction of the Project would involve limited use of hazardous materials such as fuels, oils, and other chemicals. With the implementation of construction BMPs, it is unlikely that hazardous materials would be accidently released into the environment. In the event of an accidental spill or leak, implementation of construction BMPs would ensure quick response and help prevent the potential spread of hazardous materials into the environment. Impacts would be less than significant.

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

No Impact. The proposed Project includes residential uses and would not include the emission or handling of hazardous materials. Therefore, no impact would occur.

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?

No Impact. The Project site is not listed as a known or suspected hazardous waste site. Therefore, no impact would occur.

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

No Impact. The Project is not located within an airport land use plan or within two miles of a public airport or public use airport. Therefore, no impact would occur.

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

Less than Significant Impact. According to California Department of Forestry and Fire Protection's (CAL FIRE) Fire Hazard Severity Zones in State Responsibility Area, the Project site is located in an area of very high fire hazard (CAL FIRE, 2007). There are two routes of evacuation for residents along San Juan Canyon Road, either west on San Juan Canyon Road, or northward through a designated emergency access route through private property. No lane or road closures are proposed as a part of Project construction and the Project would not interfere with any emergency response plan or emergency evacuation plan. Therefore, the Project is anticipated to have a less than significant impact to emergency evacuation plans.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. According to the CAL FIRE Fire Hazard Severity Zones Map, the Project site is within a very high fire severity zone. Construction of the Project would involve the use of fuels for construction equipment. However, the Project would follow all Federal and State regulations governing hazardous materials, and there would be little risk of the Project igniting a fire. Therefore, impacts would be less than significant.

3.9.3 Mitigation Measures

The Project would not result in significant impacts to hazards and hazardous materials; therefore, no mitigation is required.

3.10 HYDROLOGY AND WATER QUALITY

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

3.10.1 Existing Conditions

The Project site is located on north-facing slopes that drain into San Juan Canyon, which is a narrow canyon that drains toward the west and north toward the city of San Juan Bautista. San Juan Canyon Creek is an ephemeral stream located north of San Juan Canyon Road and flows only during and immediately after significant storm events. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (Panel No. 06069C0190D), the Project site is located in an area of minimal flooding.

3.10.2 Impact Analysis

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant with Mitigation. Percolation tests completed at the Project site indicate that a septic system would be a suitable wastewater treatment and disposal method for the proposed residential use of the property. However, the septic leach fields installed to-date were installed without permits and without inspection by the geotechnical engineer to ensure that they complied with the engineer's recommendations, County ordinance, and the State Water Resources Control Board's requirements for on-site wastewater disposal systems (State Board Order No. 2014-0153-DWQ). Implementation of MM GEO-3 to ensure that the proposed septic system will adequately serve the proposed uses, would result in a less than significant impact.

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

Less than Significant with Mitigation. The proposed residential uses at the Project site will require a domestic water supply well to provide adequate water for drinking and other residential uses. No certificates of occupancy will be issued by the County until an adequate water supply is demonstrated at the Project site. The water supply well has not been sited or drilled at this time. Implementation of MM HYDRO-1 would ensure that adequate water supply is available to the Project site while not decreasing available groundwater supplies to nearby residents, resulting in a less than significant impact. In addition, groundwater extraction in the jurisdiction is presently governed by County Code §15.05.001 *et seq.*, which states guidelines for underground water resources and prohibits extraction beyond the watershed's replenishment potential, with all proposals for new wells subject to these regulations.

MM HYDRO-1: Water Supply Plan. The applicant shall prepare a water supply plan for submittal to the County RMA prior to drilling the water supply well. The water supply plan shall show that there is adequate water capacity at the proposed well site to serve the proposed Project without damaging adjacent well supplies.

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

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

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

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

iv. Impede or redirect flood flows?

Less than Significant with Mitigation. Project construction would include ground disturbance for completion of remedial grading and finish grading to complete final slopes and fills. The total disturbed area is approximately 1.91 acres. Disturbed soils and insufficiently compacted fills have the potential to erode and result in downstream sedimentation impacts. Additionally, drainage facilities have not been installed at the Project site to direct and moderate storm run-off of impervious surfaces and driveways. Implementation of construction-related

BMPs, including monitoring reporting procedures, stormwater runoff quality control measures, and a sediment monitoring plan, would reduce the potential for impacts related to erosion and surface water quality. All hazardous materials, including fuels, oils, and lubricants, would be managed in accordance with Federal and State regulations. Implementation of MM HYDRO-2 and MM HYDRO-3 would reduce impacts from drainage, erosion and sedimentation, resulting in a less than significant impact.

MM HYDRO-2: Storm Water Pollution Prevention Plan. The applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) to prevent contamination from site runoff and maintain water quality during construction activities. BMPs would be designed and implemented to prevent and control the discharge of pollutants in stormwater runoff. The applicant shall file a Notice of Intent to comply with the state-wide General Storm Water Construction Permit (Order No. DWQ-2009-009, as amended) and maintain compliance with the General Construction Permit throughout the course of Project construction activities.

MM HYDRO-3: Drainage Plan. Prior to final building occupancy, the applicant shall prepare and implement a Drainage Plan that addresses storm water run-off from impervious surfaces and access roads. Discharges shall not exceed pre-project peak flow rates and velocities. The Drainage Plan shall be prepared by a California-licensed civil engineer and submitted to the County RMA for review and approval.

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

Less than Significant Impact. The Project is not within a 100-year flood zone and is located in an area of low to moderate flooding potential. The proposed structures are located on the hillsides above the canyon bottom. Therefore, the Project would result in less than significant impact related to the exposure of people or structures to risks involving inundation.

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

Less than Significant Impact. The proposed Project would not conflict with any water quality control plan or sustainable groundwater management plan. Therefore, no significant impact would occur.

3.10.3 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential Project-related impacts regarding hydrology and water quality to less than significant:

- MM HYDRO-1: Water Supply Plan
- MM HYDRO-2: Storm Water Pollution Prevention Plan
- MM HYDRO-3: Drainage Plan

3.11 LAND USE AND PLANNING

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

3.11.1 Existing Conditions

The Project site is located in a rural area of unincorporated San Benito County. Currently, the Project site contains a partially-constructed single-family residence, two water tanks, a propane tank, unpaved roads, stored materials, several shipping containers, and vehicles and construction equipment.

The Project site is on land designated as Rural by the San Benito County General Plan and Zoning Ordinance.

The purpose of this designation is to allow very low-density residential development in areas that are not primarily suited for agricultural uses, but due to the lack of public infrastructure (e.g., water, sewer, drainage) or for geographical reasons are unsuited for higher density residential designations. Maximum density is one dwelling unit per five acres.

3.11.2 Impact Analysis

a. Physically divide an established community?

No Impact. The Project would not physically divide an established community, as the proposed Project is located within rural San Benito County. Therefore, no impact would occur.

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

No Impact. The Project site is on land designated as Rural by the San Benito County General Plan and Zoning Ordinance. The Project would not conflict with the current uses at the Project site and would allow existing surrounding uses to continue as is. The Project would not conflict with the land use designations or zoning established by San Benito County. Therefore, no impact would occur.

3.11.3 Mitigation Measures

The Project would have no impact to land use and planning; therefore, no mitigation is required.

3.12 MINERAL RESOURCES

MINERAL RESOURCES - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.12.1 Existing Conditions

According to the Geologic Energy Management Division (CalGEM), the Project site is not located within an active oil and gas development area (CalGEM, 2020).

3.12.2 Impact Analysis

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

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

No Impact. The Project site has not been mapped for mineral resources. In addition, the County General Plan does not include the Project site as a zone for mineral extraction. Therefore, no impact would occur.

3.12.3 Mitigation Measures

The Project would have no impact to mineral resources; therefore, no mitigation is required.

3.13 NOISE

NOISE - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan 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?	☐	☐	☐	☒

3.13.1 Existing Conditions

3.13.1.1 General Characteristics of Noise

Noise is generally defined as unwanted or objectionable sound. Measurement of sound involves determining three variables: 1) magnitude, 2) frequency, and 3) duration. Human ears respond to a very wide range of sound pressures producing numbers of awkward size when sound pressures are related on an arithmetic (1, 2, 3…) scale. It is customary to express sound pressure level in decibels (dB), which are logarithmic (1, 10, 100…) ratios comparing sound pressures to a reference pressure. The reference pressure commonly used in noise measurement is 20 microPascals (μPa or rms), which is considered to be the quietest sound a normal young adult human ear can hear in the frequency range that the ear is most sensitive to. This sound level is assigned the value 0 dB. Higher intensity sound is perceived as louder. Sound intensity is commonly measured on a weighted scale [dBA or db(A)] to correct for the relative frequency response of the human ear. The “A-weighted” noise level de-emphasizes low and very high frequencies of sound in a manner similar to the human ear’s de-emphasis of these frequencies (OSHA, 2013; AIHA, 2003).

Except under special conditions, a change in sound level of 1 dB cannot be perceived. Outside of the laboratory, a 3 dB change is considered a just-noticeable difference, and a change in level of at least 5 dB is required before any noticeable change in community response would be expected. Some typical sound pressure levels for common sounds are provided in Table 4.13-1.

Table 3.13-1. Common Sound Levels/Sources and Subjective Human Reponses

Sound Level (dBA)	Typical Outdoor Noise Source	Typical Indoor Noise Sources	Typical Human Response/Effects
140	Carrier Jet takeoff (50 feet)	--	--Threshold for Pain--
130	Siren (100 feet) Live Rock Band	--	---Hearing Damage---
120	Jet takeoff (200 feet) Auto horn (3 feet)	--	--
110	Chain Saw Snow Mobile	--	---Deafening---
100	Lawn Mower (3 feet) Motorcycle (50 feet)	--	--
90	Heavy Duty Truck (50 feet)	Food Blender (3 feet)	---Very Loud---
80	Busy Urban Street, Daytime	Garbage Disposal (3 feet)	
70	Automobile (50 feet)	Vacuum Cleaner (9 feet)	---Loud---
60	Small plane at ¾ mi	Conversation (3 feet)	
50	Quiet Residential Daytime	Dishwasher Rinse (10 feet)	---Moderate---
40	Quiet Residential Nighttime	Quiet Home Indoors	---Quiet---
30	Slight Rustling of Leaves	Soft Whisper (15 feet)	---Very Quiet---
20	--	Broadcasting Studio	
10	--	Breathing	--Barely Audible--
0	--	--	--Threshold of Hearing--

Source: AIHA 2003, and OSHA 2013

When considering how noise could affect nearby sensitive receptors (residential dwellings, transient lodging, hospitals and other long-term care facilities, public or private educational facilities, libraries, churches, and places of public assembly), it is important to understand how sound level diminishes as distance from the source increases. For a "point" source (such as construction within a fixed area) of sound in free space, the rate at which the sound attenuates is inversely proportional to the square of the distance from the source. This means the sound level would drop 6 dB each time the distance from the source is doubled. Decibels, measuring sound energy, combine logarithmically. A doubling of sound energy (for instance, from two identical automobiles passing simultaneously) creates a 3 dB increase (i.e., the resultant sound level is the sound level from a single passing automobile plus 3 dB). When the difference between two sound levels is greater than about 10 dB, the lesser sound is negligible in terms of affecting the total level (OSHA, 2013).

The duration of noise and the time period at which it occurs are important factors in determining the human response to sound. For example, noise induced hearing loss is directly related to the magnitude, frequency, and duration of exposure. Annoyance due to noise is also associated with how often noise is present and how long it persists. One approach to quantifying time-varying noise levels is to calculate the Energy Equivalent Sound Level (L_{eq}) for the time period of interest. The L_{eq} represents a sound level which, if continuous, would contain the same

total acoustical energy as the actual time-varying noise which occurs during the observation period (OSHA, 2013).

In a residential or other noise sensitive environment, noise is more disturbing at night than during the day. Thus, noise indices have been developed to account for the differences in intrusiveness between daytime and nighttime noise. The Community Noise Level Equivalent (CNEL) and the Day-Night Average Sound Level (L_{dn}) are such indices. CNEL and L_{dn} values result from the averaging of hourly L_{eq} values for a 24- hour period, with a weighting factor applied to the nighttime L_{eq} values (and the evening values for CNEL). The CNEL penalizes noise levels during the night (10:00 p.m. to 7:00 a.m.) by 10 dB to account for the increased sensitivity of people to noise after dark. Evening noise levels (7:00 p.m. to 10:00 p.m.) are penalized 5 dB by the CNEL. The L_{dn} also penalizes nighttime noise levels by 10 dB but does not penalize evening levels. These two indices are generally equivalent. In general, the CNEL may be thought qualitatively as an accumulation of noise associated with individual events occurring throughout a 24-hour period. The noise of each individual event is accounted for in a separate, discrete measurement that integrates the changing sound level over time as, for example, when an aircraft approaches, flies overhead, then continues off into the distance. These integrated sound levels for individual operations are referred to as SELs. The accumulation of the SELs from each individual operation during a 24-hour period determines the CNEL for the day.

3.13.1.2 Ground-borne Vibration

In contrast to airborne noise, ground-borne vibration is not a common environmental problem. Vibration from sources such as buses and trucks are not usually perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

Ground-borne vibration can cause detectable building floor movement, window rattling, items shaking on shelves or walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Human annoyance from vibration can often occur and can happen when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance would be well below the damage threshold for normal buildings.

Vibration is an oscillatory motion which can be described in terms of displacement, velocity or acceleration. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring of blasting vibration since it is related to the stresses that buildings undergo.

3.13.2 Impact Analysis

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?

Less than Significant with Mitigation. Construction of the Project would result in short-term noise increases in the Project vicinity. Noise impacts from construction activities depend on the type of construction equipment used, the timing and length of activities, the distance between the noise generating construction activities and receptors and shielding. Construction activities would include construction of the multi-use building, completion of the driveway and retaining wall, and construction of the drilled water well. Construction equipment would include, but not limited to, bulldozer, grader, tractor, and mini excavator. Typical hourly average construction noise levels could be as lout as 75-80 dB at a distance of ± 100 feet from the construction area during active construction periods.

Construction noise would be temporary and intermittent. Implementation of MM N-1 would limit construction noise to daytime hours only, between 7:00 a.m. and 6:00 p.m. on weekdays and 8:00 a.m. and 5:00 p.m. on Saturdays. No construction shall be allowed on Sundays or federal holidays. No nighttime construction would be required nor proposed. In addition, the closest sensitive receptor is approximately 870 feet northeast from the Project's site (driveway). Therefore, implementation of construction hours consistent with MM N-1, impacts would be less than significant.

MM N-1: Construction Noise. Construction activities shall be conducted during daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays and 8:00 a.m. and 5:00 p.m. on Saturdays. No construction shall be allowed on Sundays or federal holidays.

The Project would not result in long-term operational noise impacts. Operational noise is not expected to affect the adjacent sensitive noise receptors; therefore, no impact would occur.

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

Less than Significant Impact. Construction of the Project would generate temporary groundborne vibration. A vibration impact could occur where noise-sensitive land uses are exposed to excessive vibration levels. Sierra Madre Nursery School is located approximately 0.25 miles southwest from the Project site. the closest sensitive receptor is approximately 870 feet northeast from the Project's site (driveway); therefore, impacts would be less than significant.

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?

No Impact. The Project site is not located within two miles of a private airstrip or public airport. The closest airport is the Hollister Municipal Airport located approximately 7.5 miles to the northeast of the Project site. The Project would not expose people residing or working in the Project area to excessive noise levels; therefore, no impact would occur.

3.13.3 Mitigation Measures

Implementation of the following mitigation measure would reduce potential Project-related impacts regarding noise to less than significant:

- MM N-1: Construction Noise

3.14 POPULATION AND HOUSING

POPULATION AND HOUSING - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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)?	☐	☐	☒	☐
b) Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Existing Conditions

The most recent estimates from the U.S. Census for the County are from July 1, 2019, with an estimated 62,808 residents living in the County and a total amount of 19,979 homes in the County (U.S. Census, 2021).

3.14.2 Impact Analysis

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)?

Less than Significant Impact. The Project includes the construction of a single-family residence, two apartments above a multi-use building, and an associated access road. Project construction is not expected to involve employment opportunities substantially beyond what would normally be available to construction workers in the area, and local workers would be utilized to the greatest extent practicable. Therefore, the Project would not induce substantial population growth, either directly or indirectly, and the impact would be less than significant.

b. Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would not displace any existing housing or create demand for additional housing. Therefore, no replacement housing would be required to be construction. No impact would occur.

3.14.3 Mitigation Measures

The Project would not result in significant impacts on population and housing; therefore, no mitigation is required.

3.15 PUBLIC SERVICES

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 Existing Conditions

Project site service providers are listed below in Table 3.15-1.

Table 3.15-1. Summary of Public Service Providers

Service	Providers
Fire Protection	Aromas Tri-County Fire Protection District
Police Protection	San Benito Sheriff Department
Schools	Aromas San Juan Unified School District
Parks	San Benito County Parks and Recreation

3.15.1.1 Fire Protection

The Aromas Tri-County Fire Protection District (ATCFPD) provides fire protection services within its service area in San Benito, Santa Cruz, and Monterey Counties, and operates under a Cooperative Fire Protection Agreement with CAL FIRE. The closest fire station to the Project site is Hollister City Fire Station #4, located approximately 5.0 miles to the northwest in San Juan Bautista (Aromas Tri-County Fire Protection District, 2021).

3.15.1.2 Police Protection

The San Benito Sheriff Office provides police protection services to the Project site. The County operates one Sheriff's Office located at 2301 Technology Parkway, in the City of Hollister, which is located approximately seven miles to the northeast (San Benito County Sheriff's Office, 2021).

3.15.1.3 Schools

The Project site is located within the Aromas San Juan Unified School District. The closest school to the Project site is San Juan School, located 5.25 miles to the northwest in San Juan Bautista (San Juan Unified School District, 2021).

3.15.1.4 Parks

Impacts to parks are discussed in Section 3.16, Recreation. The closest park to the Project site is San Juan Mission State Park located approximately five miles to the northwest (County of San Benito, 2021). The Project site is also located along the route between San Juan Bautista and Fremont Peak State Park.

3.15.2 Impact Analysis

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?
- Police protection?
- Schools?
- Parks?
- Other public facilities?

Impacts to wildfire are discussed in Section, 3.20, Wildfire

No Impact. The ATCFPD and San Benito County Sheriff already serve the adjacent properties, including the Project site. The Project would not trigger the need to construction new stations or expand existing services. In addition, the Project would not require any additional public services, such as schools, parks, or other public services. Therefore, no impact would occur.

3.15.3 Mitigation Measures

The Project would not result in significant impacts on public services; therefore, no mitigation is required.

3.16 RECREATION

RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation	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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.16.1 Existing Conditions

The San Benito County of Parks and Recreation Commission manages recreation facilities within the County (County of San Benito, 2021).

3.16.2 Impact Analysis

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?*

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?*

No Impact. The Project consists of one residential dwelling and two apartments and would not result in population increase. The Project would not result in the increase use of existing parks and recreational facilities or include plans for the construction of recreational facilities. Therefore, no impact would result.

3.16.3 Mitigation Measures

The Project would not result in significant impacts on recreational facilities; therefore, no mitigation is required.

3.17 TRANSPORTATION

TRANSPORTATION - Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**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?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Existing Conditions

The Project site is located off San Juan Canyon Road, or County Route G1, which is classified as a collector road in the County's Circulation Element. Collectors are two-lane facilities that function as the main interior streets within neighborhoods and business areas and are designated to carry traffic between local roads and arterials (County of San Benito, 2015).

The overall standard for congestion levels in San Benito County is Level of Service (LOS) D. LOS D is also considered the maximum acceptable level of service for side street operations at one- and two-way stop-controlled intersections.

The County requires that all new public and private roads on hillsides minimize visual impact by blending with natural landforms and by following the natural contours of the land as much as possible. In addition, the County requires that new roads on hillsides do not exceed a 15 percent grade. Grades on hillsides of up to 20 percent may be allowed for distances of up to 400 feet. Grades over 15 percent much have all weather surfaces, such as asphalt or concrete (County of San Benito, 2015).

3.17.2 Impact Analysis

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. The Project would generate a nominal amount of traffic along San Juan Canyon Road and other area roadways during construction activities. An estimated maximum of 12 truck deliveries per week would be required during construction to supply equipment, materials, and components. In addition to construction vehicles, approximately 12 construction workers would commute to the Project site in personal vehicles. Construction workers would typically arrive before 8:00 a.m. and leave after 5:00 p.m. The amount of construction generated trips would contribute a very small increase temporarily to the existing traffic and would not substantially increase the volume of traffic on neighboring roads and freeways.

b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less than Significant Impact. CEQA Guidelines section 15064.3(b) indicates that vehicle miles traveled is the most appropriate measure for transportation impacts. In December 2018, the Office of Planning and Research provided an updated Technical Advisory to evaluate transportation impacts in CEQA. In particular, the advisory suggests that a project generating or attracting fewer than 110 one-way trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR, 2018). During Project construction, it is estimated that no more than 12 personnel would be traveling daily to the Project area from local residences, nearby hotels, or rental properties at any given time. The peak trips that would occur in any one day is 24, significantly below the number identified in the Technical Advisory's guidance. Therefore, the impact would be less than significant.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. The Project would not involve redesign or reconfigure existing roadways, and there would be no incompatible types of vehicles introduced. In addition, the driveways would be designed to avoid potential hazards. Both the current low traffic and the minor degree of new traffic generation would diminish the likelihood of increased hazard. Therefore, the Project would result in a less than significant impact.

d. Result in inadequate emergency access?

Less than Significant Impact. The Project would not alter the physical configuration of the existing roadway network serving the Project area and would have no effect on access to local streets or adjacent uses (including access for emergency vehicles). The Project driveways would meet CAL FIRE requirements for vehicle access. Emergency fire access would be provided throughout the Project site; therefore, the Project would result in a less than significant impact.

3.17.3 Mitigation Measures

The Project would not result in significant impacts to transportation and traffic; therefore, no mitigation is required.

3.18 TRIBAL CULTURAL RESOURCES

TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:	☐	☒	☐	☐
i) 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	☐	☒	☐	☐
ii) 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Existing Conditions

Padre requested an expedited records search for the Project site from the NWIC on November 2, 2020 (File No. 20-0844) and received the results on November 12, 2020. The NWIC records search indicates that the Project site has not been examined for cultural resources; however, three cultural resource studies have been completed within a 0.25-mile radius of the Project site. The NWIC records search did not identify any cultural resources within the Project site. One previously recorded resource, P-35-000055 (CA-SBN-54H), has been identified within a 0.25-mile radius of the Project site. P-35-000055 is a historic-aged cemetery with nine burials dating from 1951 to 1968. This resource is not considered a tribal cultural resource as defined by CEQA, and no tribal cultural resources were identified in the Project site.

AB 52 establishes a formal consultation process for California tribes regarding tribal cultural resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

The County prepared and mailed letters to Native American individuals and tribal organizations in accordance with AB 52 on September 4, 2020. The County did not receive responses from individuals and organizations contacted.

3.18.2 Impact Analysis

a. 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:

i. Listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources as defined in Public Resources Code section 5020.1, subdivision (k), or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation. No tribal cultural resources have been identified within the Project site. However, as described above in Section 3.5 Cultural Resources, previously unknown or buried resources could be present. The implementation of MM CUL-1 and MM CUL-2 would ensure that potential impacts to tribal cultural resources would be less than significant.

3.18.3 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential for Project-related impacts regarding tribal cultural resource to less than significant:

- MM CUL-1: Treatment of Unknown Cultural Resources
- MM CUL-2: Unanticipated Discovery of Human Remains

3.19 UTILITIES AND SERVICE SYSTEMS

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

3.19.1 Existing Conditions

The Project includes water from a well that would be drilled on-site and construction of an on-site septic system which would serve the three residences; therefore, the Project would not require water or wastewater connection to or from existing utility providers.

San Benito County relies on several private companies for telecommunications services, such as AT&T and Charter, which provide telephone, mobile phone, cable television, and broadband internet services (San Benito County, 2015). In addition, PG&E supplies electric and gas service within San Benito County (PG&E, 2014).

3.19.2 Impact Analysis

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact. The Project would utilize an on-site well and septic systems. The Project would need to construct connections to PG&E and telecommunication services; however, the construction would not cause significant environmental effects and would result in a less than significant impact.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. As stated previously, a water well would be drilled on-site. The well would have a capacity to meet the required capacity for the three residences. Use of a public water service provider is not proposed; therefore, resulting in a less than significant impact.

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?

Less than Significant Impact. As stated previously, the Project would construct on-site septic systems. Use of the County's wastewater service provider is not proposed; therefore, resulting in a less than significant impact.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The Project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure. General trash and recycling would be transported to the John Smith Road Landfill located in Hollister, California (San Benito County, 2015). The Project's solid waste generation would result in a less than significant impact.

e. Comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact. The Project would comply with Federal, State and local management and reduction statues and regulations related to solid waste, resulting in a less than significant impact.

3.19.3 Mitigation Measures

The Project would not result in significant impacts to utilities and service systems; therefore, no mitigation is required.

3.20 WILDFIRE

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**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☒	☐	☐

3.20.1 Existing Conditions

Urban and wildland fire hazards in San Benito County create the potential for injury, loss of life, and property damage. Vegetation fires comprise the majority of fires in the county, and most of these fires are caused by human activities involving motor vehicles, equipment, operation, arson, and burning of debris (San Benito County, 2015).

The wildfire hazard in the County has been analyzed using the methodology of the CAL FIRE Fire and Resource Assessment Program (FRAP) (2007) and ranges from moderate to very high in severity classification. Pursuant to the CAL FIRE Fire Hazard Severity Zones in State Responsibility Area, the Project site is located in a Very High fire hazard severity zone (CAL FIRE, 2007).

CAL FIRE and the Bureau of Land Management have primary wildland fire management responsibilities in the County. The San Benito County Fire Department, Aromas Tri-County Fire Protection District, Hollister Fire Department, and San Juan Bautista Volunteer Fire Department have lesser responsibilities for wildland fires (San Benito County, 2015).

3.20.2 Impact Analysis

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

Less than Significant Impact. The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The Project would not create any barriers to emergency or other vehicle movement in the area and final design would comply with all Fire and Building Code requirements.

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

Less than Significant with Mitigation. The Project site is surrounded by mountains and steep terrain comprised of trees and vegetation. Construction activities, which include spark-producing equipment, could present a significant risk to igniting wildfires. Implementation MM WILD-1 would reduce the risk of wildland fire during construction to a less than significant level and ensure the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. In addition, adherence to existing California Fire Code standards regarding driveway design would provide the required fire and emergency access to the three residences, resulting in a less than significant impact.

MM WILD-1: Spark Producing Equipment. During construction, staging areas or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles and heavy equipment.

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

Less than Significant Impact. The Project includes one main driveway that provides access to the three residences. The driveway shall be designed to accommodate emergency vehicles, including fire trucks. The Project would be accessable by emergency vehicles in the case of emergency. No additional roads or infrastructure would be required; therefore, resulting in a less than significant impact.

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

Less than Significant with Mitigation. The Project is located within a Very High fire hazard severity zone and is surrounded by mountains and steep terrain comprised of trees and vegetation, which could expose the residences to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Due to the close proximity of the residences to San Juan Canyon Road, use of the northward designated emergency access route across private property, and compliance with existing California Fire Code standards for ingress and egress, the residences would have an adequate escape route from the Property in the event of an emergency, resulting in a less than significant impact.

3.20.3 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential for Project-related impacts regarding wildfire to less than significant:

- MM WILD-1: Spark Producing Equipment

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

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

Less than Significant with Mitigation. As described in the impact sections above, the potential of the proposed Project to substantially degrade the environment is less than significant with incorporation of mitigation measures. Specifically, the Project has potential to impact air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, noise, tribal cultural resources, and wildfire. However, these impacts would be avoided or reduced to a less than significant level with incorporation of mitigation measures discussed in each section.

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

Less than Significant Impact. For any Project-related impact to contribute cumulatively to the impacts of past, present, or reasonably foreseeable projects, the other projects would need to result in an impact on the same resource area, occur at the same time, or occur within an area

overlapping the proposed Project. No such project within the vicinity of the Project was identified that would result in a cumulative impact.

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

Less than Significant Impact. The Project would not result in any substantial adverse effects to human beings, either directly or indirectly. While potentially significant impacts affecting humans could involve air quality, geology and soils, hydrology and water quality, noise, and wildfire, each can be reduced to a less than significant level with the implementation of mitigation measures provided in this document. No other substantial adverse effects to human beings are anticipated as a result of this Project.

4.0 REFERENCES

4.1 BIBLIOGRAPHY

American Industrial Hygiene Association (AIHA). 2003. The Noise Manual 5th Edition.

Aromas Tri-County Fire Protection District. 2021. https://atcfire.org/. Accessed on January 15, 2021.

California Air Resources Board (CARB). 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.

_____. 2008. Strategic Plan.

_____. 2014. EMFAC2014, User's Guide.

_____. 2017. California's 2017 Climate Change Scoping Plan.

_____. 2020a. Summary: Diesel Particulate Matter Health Impacts, accessed September 2020 at: https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts.

_____. 2020b. Overview: Diesel Exhaust & Health, accessed September 2020 at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health.

_____. 2020c State and National Ambient Air Quality Standards, accessed September 2020 at: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf.

_____. 2021. Maps of State and Federal Area Designations. Accessed May 2021 at https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

California Department of Conservation (CDC). 2002. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed on November 4, 2020.

California Department of Conservation, Geologic Energy Management Division (CalGEM). 2020. Well Finder. https://maps.conservation.ca.gov/doggr/wellfinder/#openModal. Accessed on November 4, 2020.

California Department of Fish and Wildlife (CDFW). 2021. California Natural Diversity Data Base (CNDDB) 5-Mile Query for the Project site, San Juan Canyon Road, San Juan Bautista, CA. CDFW Biogeographic Data Branch. Sacramento, CA.

California Department of Transportation (Caltrans). List of Officially Designated County Scenic Highways. 2020. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed November 4, 2020.

California Geologic Survey, 2021. California Earthquake Hazards Zone Application (EQ ZAPP). Accessed at: https://www.conservation.ca.gov/cgs/geohazards/eq-zapp.

California Governor's Office of Planning and Research. 2018. California's Fourth Climate Change Assessment, Statewide Summary Report.

California Native Plant Society (CNPS), Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). USGS 7.5' Quadrangles: Hollister and San Juan Bautista. Website: https://www.rareplants.cnps.org Accessed June 2021.

CALFIRE, 2009. Fire Hazard Severity Zone Maps for State Responsibility Areas. Accessed at: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/.

Central Coast Community Energy. https://3cenergy.org/unify-central-coast/. Accessed on November 4, 2020/

County of San Benito. 2015. 2035 General Plan and Recirculated Environmental Impact Report, adopted by the Board of Supervisors, July 21, 2015.

_____. 2021. County of San Benito Parks & Recreation Commission. https://www.cosb.us/departments/resource-management-agency/parks-recreation. Accessed on January 15, 20201.

EMC Planning Group Inc. 2016. San Benito County 2035 General Plan. Dated July 21, 2016. Draft Environmental Impact Report. North Street Subdivision. Dated March 22.

Environ International Corporation (Environ). 2016. California Emissions Estimator Model (CalEEMod) User's Guide, Appendix D, Default Data Tables.

Federal Emergency Management Agency, 2007. National Flood Insurance Program Federal Insurance Rate Map Panel No. 06069C0190D. Accessed at https://www.fema.gov/flood-maps/national-flood-hazard-layer.

Intergovernmental Panel on Climate Change (IPCC). 2014. Fifth Assessment Report.

Monterey Bay Air Resources District. 2008. CEQA Air Quality Guidelines. Dated February.

_____.2002 Rule 400, 402 – Nuisances and 403. August 21.

_____.2005 Rule 403 – Particulate February 16.

_____.2012 Rule 400 – Visible Emissions. August 15.

_____.2017, 2012-2015 Air Quality Management Plan, Dated March 15.

Natural Resources Conservation Service, 2021. Web Soil Survey Report. Accessed at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

Occupational Safety and Health Administration (OSHA). 2013. Technical Manual – Noise.

Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018. https://www.opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed on September 16, 2020.

Pacific Gas and Electric Company (PG&E). 2014. Service Area Map. December 17, 2014.

Rincon Consultants. 2020. Lico Major Subdivision Initial Study – Mitigated Negative Declaration, Dated May.

San Benito County. 2015. 2035 San Benito County General Plan (General Plan), Adopted by the County Board of Supervisors July 21, 2015. San Benito County, CA.

San Benito County Sheriff's Office. 2021. http://sbso.us/. Accessed on January 15, 2021.

San Juan Unified School District. 2021. https://www.sanjuan.edu/. Accessed on January 15, 2021.

San Luis Obispo County Air Pollution Control District, 2012. CEQA Air Quality Handbook. Dated April.

Soil Surveys Group, Inc. 2018. Geotechnical Investigation APN 023-010-061. September 7, 2018.

_____ 2020. Percolation Investigation APN 023-010-061. March 30, 2020.

Starcrest Consulting Group, LLC (Starcrest). 2012. Puget Sound Maritime Air Emissions Inventory.

Thompson Wildland Management. 2018. Biological assessment of areas impacted by non-permitted grading activities, San Juan Canyon Road, San Benito County (APN: 023-010-061). Prepared for the Wilson Property, San Juan Canyon Road, San Juan Bautista, CA. September 3, 2018.

U.S. Census Bureau. 2020. San Benito County, California. http://www.census.gov/quickfacts/fact/table/sanbenitocountycalifornia,US/PST045219. Accessed on January 14, 2021.

U.S. Department of Transportation (USDOT), Federal Highway Administration. 2006. Roadway Construction Noise Model User's Guide Final Report.

U.S. Department of Energy Information Agency, 2019. Energy-Related Carbon Dioxide Emissions by State, 2005-2016. Accessed at: https://www.eia.gov/environment/emissions/state/analysis/.

U.S. Fish and Wildlife Service (USFWS). 2009. A System for Mapping Riparian Areas in the Western United States. U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation, Branch of Resource and Mapping Support. Arlington, VA.

------ 2021a. Threatened and Endangered Species Active Critical Habitat Report. Environmental Conservation Online System (ECOS). Website: https://ecos.fws.gov/ecp/report/table/critical-habitat.html [accessed May 2021]

------ 2021b. Information, Planning and Conservation (IPaC) Resource List for the Project site, San Juan Canyon Road, San Benito County, CA. Website: https://ecos.fws.gov/ipac/ [accessed May 2021].

U.S. Geological Survey. 2001. TOPO! 2001 National Geographic Holdings.

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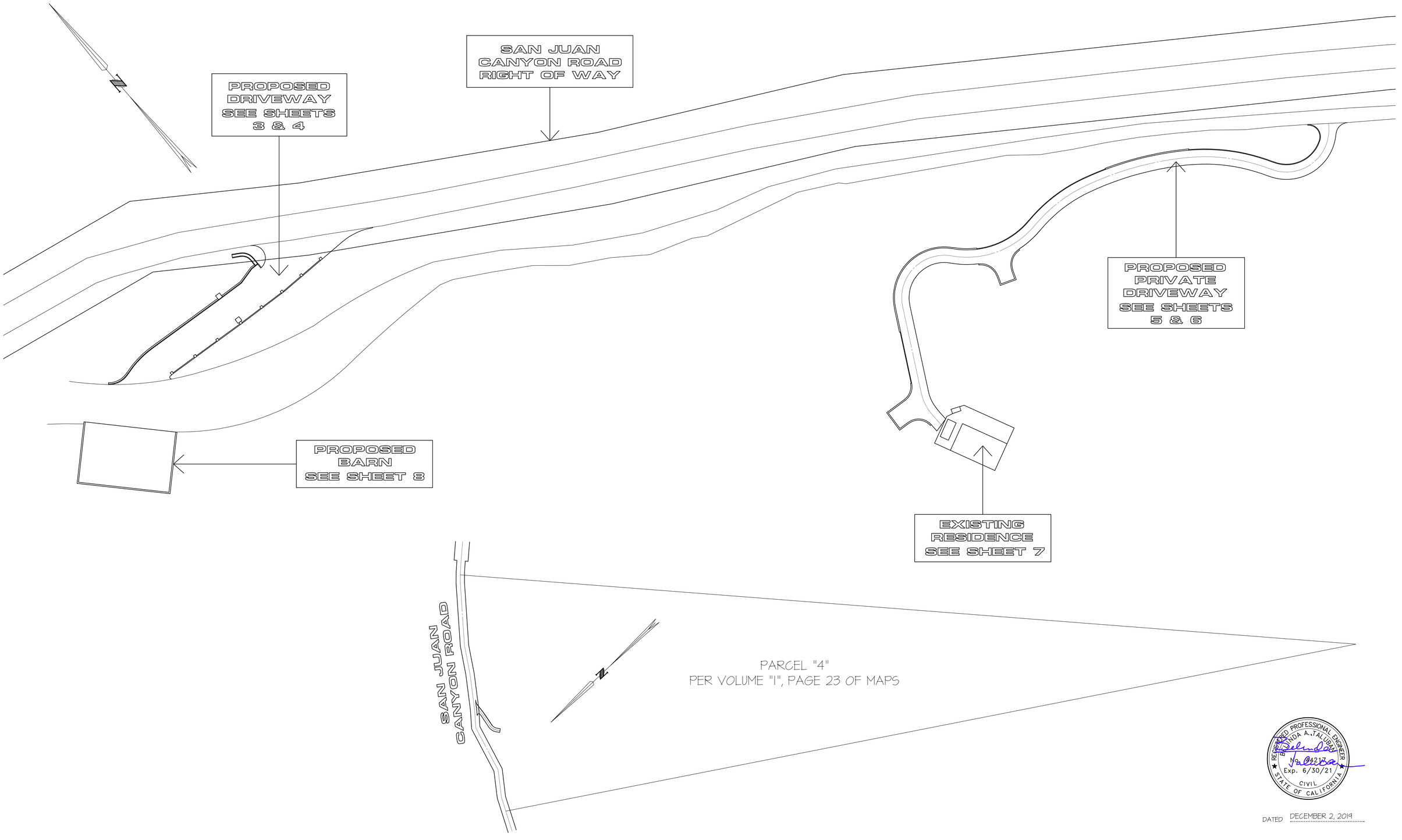
APPENDIX A

ARCHITECTURAL DRAWINGS



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ASSESSOR'S PARCEL NUMBER 023-010-061-0

SITE IMPROVEMENTS
PREPARED FOR
CHARLES WILSON

SCALE NO SCALE JOB NO. 4175

DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 1 OF 8

SCOPE OF WORK:

THIS PROJECT SHALL CONSIST OF A GRADING PLAN FOR DRIVEWAYS, RETAINING WALL, BARN AND EROSION CONTROL MEASURES.

GENERAL NOTES:

ALL FILL TO BE COMPACTED TO A MIN. 90% RELATIVE COMPACTION BY A.S.T.M. D1557-09. ALL NEWLY CREATED SLOPES TO BE 2:1 MAXIMUM AND LANDSCAPED OR SEEDED WITH PLANT MATERIALS AND SOIL ADDITIVES SUFFICIENT TO PREVENT EROSION BY STORM WATERS.

VEGETATION REMOVAL BETWEEN OCTOBER 15TH AND APRIL 15TH SHALL NOT PRECEDE SUBSEQUENT GRADING OR CONSTRUCTION ACTIVITIES BY MORE THAN 15 DAYS. DURING THIS PERIOD, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE.

BETWEEN OCTOBER 15TH AND APRIL 15TH, DISTURBED SURFACES NOT INVOLVED IN THE IMMEDIATE OPERATIONS MUST BE PROTECTED BY MULCHING AND/OR OTHER EFFECTIVE MEANS OF SOILS PROTECTION.

RUN-OFF FROM THE SITE SHALL BE DETAINED OR FILTERED BY BERMS, VEGETATED FILTER STRIPS AND/OR CATCH BASINS TO PREVENT THE ESCAPE OF SEDIMENT FROM THE DISTURBED AREA OR SITE. THESE DRAINAGE CONTROL MEASURES MUST BE MAINTAINED BY THE CONTRACTOR AS NECESSARY TO ACHIEVE THEIR PURPOSE THROUGHOUT THE LIFE OF THE PROJECT.

EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY, BETWEEN OCTOBER 15 AND APRIL 15.

THE DIRECTOR OF THE BUILDING INSPECTION DEPARTMENT MAY STOP OPERATIONS DURING PERIODS OF INCLEMENT WEATHER IF HE DETERMINES THAT EROSION PROBLEMS ARE NOT BEING CONTROLLED ADEQUATELY.

ALL CUT AND FILL SLOPES SHALL BE 2:1 OF FLATTER (TYPICAL). NO GRADING TO OCCUR WITHIN 3 FEET OF ANY PROPERTY LINE.

TOE OF FILL SHALL BE KEYED IN ON CROSS SLOPES GREATER THAN 10 %

WINTER RESTRICTIONS

NO LAND CLEARING OR GRADING SHALL OCCUR ON THE SUBJECT PARCEL BETWEEN OCTOBER 15 AND APRIL 15 UNLESS AUTHORIZED BY THE COUNTY OF SAN BENITO ENGINEERING SERVICES DIVISION.

DURING WINTER OPERATIONS (BETWEEN OCTOBER 15 AND APRIL 15) THE FOLLOWING MEASURES MUST BE TAKEN:

DISTURBED SURFACES NOT INVOLVED IN THE IMMEDIATE OPERATIONS MUST BE PROTECTED BY MULCHING AND/OR OTHER EFFECTIVE MEANS OF SOIL PROTECTION.

ALL ROADS AND DRIVEWAYS SHALL HAVE DRAINAGE FACILITIES SUFFICIENT TO PREVENT EROSION ON OR ADJACENT TO THE ROADWAY OR ON THE DOWNHILL PROPERTIES.

RUNOFF FROM THE SITE SHALL BE DETAINED OR FILTERED BY BERMS, VEGETATED FILTER STRIPS, AND/OR CATCH BASINS TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE.

DRAINAGE CONTROL MEASURES SHALL BE MAINTAINED AND IN PLACE AT THE END OF EACH DAY AND CONTINUOUSLY THROUGHOUT THE LIFE OF THE PROJECT DURING WINTER OPERATIONS.

DUST CONTROL

AT ALL TIMES DURING CONSTRUCTION AND UNTIL FINAL COMPLETION, THE CONTRACTOR, WHEN HE OR HIS SUBCONTRACTORS ARE OPERATING EQUIPMENT ON THE SITE, SHALL PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE BY WATERING AND/OR TREATING THE SITE OF THE WORK IN SUCH A MANNER THAT WILL CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE OF THE WORK, TO THE SATISFACTION OF THE PROJECT ENGINEER AND APPLICABLE AUTHORITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE DONE BY THE DUST FROM HIS OR HER SUB-CONTRACTOR'S ACTIVITIES IN PERFORMING THE WORK UNDER THIS CONTRACT.

GEOTECHNICAL CERTIFICATION

PRIOR TO FINAL INSPECTION, THE GEOTECHNICAL CONSULTANT SHALL PROVIDE CERTIFICATION THAT ALL DEVELOPMENT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE ORIGINAL GEOTECHNICAL REPORT AND UPDATES.

EROSION CONTROL PLAN

THE APPROVED DEVELOPMENT SHALL INCORPORATE THE RECOMMENDATIONS OF THE EROSION CONTROL PLAN. ALL CUT AND/OR FILL SLOPES EXPOSED DURING THE COURSE OF CONSTRUCTION SHALL BE COVERED, SEEDED OR OTHERWISE TREATED TO CONTROL EROSION DURING THE COURSE OF CONSTRUCTION. THE IMPROVEMENT AND GRADING PLANS SHALL INCLUDE MEASURES FOR THE PREVENTION AND CONTROL OF EROSION, SILTATION AND DUST DURING AND IMMEDIATELY FOLLOWING CONSTRUCTION AND UNTIL EROSION CONTROL PLANTING BECOMES ESTABLISHED.

EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY.

FIRE ACCESS

DRIVEWAYS SHALL NOT BE LESS THAN 12 FEET WIDE UNOBSTRUCTED.

WHERE DRIVEWAY EXCEEDS 800 FEET, TURNOUTS SHALL BE PROVIDED AT NO GREATER THAN 400 FOOT INTERVALS.

ALL DEAD-END ACCESS ROADS IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH APPROVED PROVISION FOR THE TURNING OF FIRE APPARATUS.

DRIVEWAY LOCATION SHALL PROVIDE UNOBSTRUCTED ACCESS TO CONVENTIONAL DRIVE VEHICLES.

SURFACES SHALL BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING 22 TONS IN ALL WEATHER CONDITIONS..

ABBREVIATION SCHEDULE

B.C.	BEGIN CURVE
B.C.R.	BEGIN CURB RETURN
BVCS	BEGIN VERTICAL CURVE
C.B.	CATCHBASIN
CO	CLEANOUT
(E)	EXISTING
EVCS	END VERTICAL CURVE
E.C.	END CURVE
E.P.	EDGE OF PAVEMENT
F.F.	FINISHED FLOOR
F.L.	FLOW LINE
GR.BR.	GRADE BREAK
G	GROUND
INV.	INVERT ELEVATION
M.H.	MANHOLE
N.I.C.	NOT IN CONTRACT
P.C.C.	PORTLAND CEMENT CONCRETE
P	ASPHALT PAVEMENT
P.L.	PROPERTY LINE
P.P.	POWER POLE
P.V.C.	POLYVINYLCHLORIDE
S/D	STORM DRAIN
S/S	SANITARY SEWER
S.G.	SUBGRADE
S/W	SIDEWALK
T.C.	TOP OF CURB
TBM	TEMPORARY BENCHMARK

EROSION CONTROL

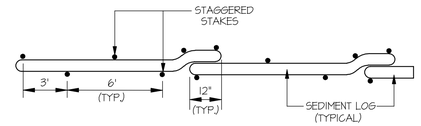
1. THE EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN OPERATION THROUGHOUT CONSTRUCTION PHASE. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED, REPAIRED AND LOGGED AT THE END OF EACH WORKING DAY.
2. GRAVEL BAGS & PCC BLOCKS SHALL BE PLACED AROUND EACH CATCH BASIN UNTIL ALL TRIBUTARY UPSTREAM AND DOWNSTREAM AREAS HAVE BEEN STABILIZED AND MAY BE REMOVED ONLY WITH THE APPROVAL OF THE COUNTY ENGINEER.
3. CONTRACTOR SHALL CONFINE VEHICLES, ETC., TO THE AREAS UNDER CONSTRUCTION AND SHALL NOT PERMIT DAMAGE TO THE EXISTING VEGETATION OR NATURAL GROUND IN FUTURE DEVELOPMENT AREAS. ANY DAMAGE SHALL BE IMMEDIATELY REPAIRED.
4. TRAPPED SEDIMENT IS TO BE REMOVED AS REQUIRED TO MAINTAIN TRAP EFFICIENCY. CONTRACTOR SHALL EXAMINE GRAVEL BAGS AND FIBER ROLLS WEEKLY AND BEFORE AND AFTER EACH RAIN. FOLLOWING ANY PERIODS OF RAIN, REMOVE ANY SILT DEPOSITS AND REPLACE ANY DAMAGED GRAVEL BAGS. TRAPPED SEDIMENT IS TO BE DISPOSED AT A SITE
5. GRAVEL BAGS AND FIBER ROLLS MAY BE REMOVED AFTER AREAS ABOVE THEM HAVE BEEN STABILIZED AND ONLY WITH APPROVAL OF THE COUNTY ENGINEER.
6. HYDROSEEDING. SEEDING SHALL BE PERFORMED BY A MECHANICAL HYDROSEEDER. THE HYDRO MULCH IS PREPARED BY MIXING FIBER, SOIL STABILIZER, SEED AND WATER IN PORTIONS SPECIFIED IN THE PLANS OR HEREIN. MIXING TIME SHALL NOT EXCEED 45 MINUTES FROM THE TIME THE SEED CONTACTS THE WATER UNTIL THE ENTIRE BATCH IS DISCHARGED ONTO THE PREPARED SOIL.

HYDROSEEDING SEED MIX FOR THE PARTIAL HYDROSEEDING AREA

SCIENTIFIC NAME	COMMON NAME	APPLICATION RATE (lbs./acre)
ACHILLEA MILLEFOLIUM	COMMON YARROW	1
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	15
LEYMUS TRITICOIDES	CREEPING RYEGRASS	5.5
LUPINUS NANUS	SKY LUPINE	2
ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	0.5
LOTUS SCOPARIOUS	DEERWEED	2
BROMUS CARINATUS	CALIFORNIA BROME	15
ELYMUS GLAUCUS	BLUE WILD-RYE	10

NON-SEED PRODUCTS	APPLICATION RATE (lbs./acre)
BONDED FIBER MATRIX MULCH	3000
ENDO MYCORRHIZAL INOCULANT (25 spores/ft^2)	10

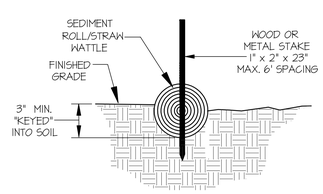
8. SAN BENITO COUNTY RESERVES THE RIGHT TO REQUIRE THE INSTALLATION OF STRAW MATTING IN AREAS WERE EROSION CONTROL/SEEDING HAS NOT BEEN ESTABLISHED.
9. CONTRACTOR SHALL PROVIDE A CONCRETE WASHOUT LOCATION ON SITE PER DETAIL SHOWN HEREON.



A SEDIMENT ROLL DETAIL

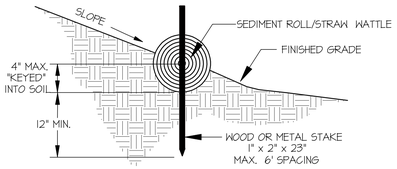
(TO BE USED ON SLOPES AND ALONG PROPERTY LINES)

NOT TO SCALE



ENTRENCHMENT DETAIL IN FLAT AREA

NOT TO SCALE



ENTRENCHMENT DETAIL IN SLOPE AREA

(FOR SHORT SLOPES OR SLOPES FLATTER THAN 3:1)

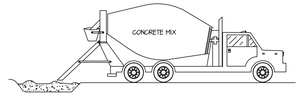
NOT TO SCALE

PRIOR TO ROLL INSTALLATION, CONTOUR A CONCAVE KEY TRENCH THREE (3" MIN.) TO FOUR (4") INCHES MAX. DEEP ALONG THE PROPOSED INSTALLATION ROUTE.

SOIL EXCAVATED IN TRENCHING SHOULD BE PLACED ON THE UPHILL OR FLOW SIDE OF THE ROLL TO PREVENT WATER FROM UNDER CUTTING THE ROLL.

PLACE SEDIMENT ROLL INTO KEY TRENCH AND STAKE ON BOTH SIDES OF THE ROLL TO WITHIN SIX FEET (6') OF EACH END AND THEN EVERY SIX FEET (6') WITH 1" x 2" x 23" WOOD OR METAL STAKES.

STAKES ARE TYPICALLY DRIVEN IN ON ALTERNATING SIDES OF THE ROLL. WHEN MORE THAN ONE SEDIMENT ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED TWELVE INCHES (12") MIN. TO PROVIDE A TIGHT JOIN, NOT ABUTTED TO ONE ANOTHER.



DESCRIPTION

PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFF-SITE, PERFORMING ON-SITE WASHOUT IN A DESIGNATED AREA, AND TRAINING EMPLOYEES AND SUBCONTRACTORS.

APPROACH

THE FOLLOWING STEPS WILL HELP REDUCE STORM WATER POLLUTION FROM CONCRETE WASTES: STORE DRY AND WET MATERIALS UNDER COVER, AWAY FROM DRAINAGE AREAS. AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE. PERFORM WASHOUT OF CONCRETE TRUCKS OFF SITE OR IN DESIGNATED AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED AREAS. FOR ON-SITE WASHOUT:

LOCATE WASHOUT AREA AT LEAST FIFTY FEET (50') FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES. DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.

WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.

WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE, AVOID CREATING RUNOFF BY DRAINING THE WATER TO A BERMED OR LEVEL AREA.

DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASE STOCK PILE, OR DISPOSE IN THE TRASH.

B CONCRETE WASTE WASH MANAGEMENT DETAIL

DUST CONTROL

AT ALL TIMES DURING CONSTRUCTION AND UNTIL FINAL COMPLETION, THE CONTRACTOR, WHEN HE OR HIS SUBCONTRACTORS ARE OPERATING EQUIPMENT ON THE SITE, SHALL PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE BY WATERING AND/OR TREATING THE SITE OF THE WORK IN SUCH A MANNER THAT WILL CONFINE DUST PARTICLES TO THE IMMEDIATE SURFACE OF THE WORK. TO THE SATISFACTION OF THE PROJECT ENGINEER AND APPLICABLE AUTHORITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE DONE BY THE DUST FROM HIS OR HER SUB-CONTRACTOR'S ACTIVITIES IN PERFORMING THE WORK UNDER THIS CONTRACT.

REGISTERED PROFESSIONAL ENGINEER BRENDA A. TALBOT Exp. 6/30/21 CIVIL STATE OF CALIFORNIA

DATED DECEMBER 2, 2019

REVISED 9-23-19 A.S.

H. D. PETERS CO.
ENGINEERING - SURVEYING - LAND PLANNING
119 CENTRAL AVENUE - POST OFFICE BOX 512 SALINAS CALIFORNIA 93902 PH (831) 424-3961 FAX (831) 424-2746

4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA

ASSESSOR'S PARCEL NUMBER 023-010-061-0

NOTES AND DETAILS

PREPARED FOR

CHARLES WILSON

SCALE AS SHOWN JOB NO. 4175

DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 2 OF 8

DRIVEWAY CENTERLINE PROFILE
SCALE 1"=20'
60.00' VC
HIGH POINT ELEV = 883.32
HIGH POINT STA = 1+84.18
PVI STA = 1+56.95
PVI ELEV = 883.53
A.D. = -15.73
K = 3.82
60.00' VC
LOW POINT ELEV = 867.35
LOW POINT STA = 0+22.61
PVI ELEV = 866.82
A.D. = 17.00
K = 3.53
FINISHED GRADE
EXISTING NATURAL GROUND
15.00%
-2.00%
S=0.0026
EXISTING RIGHT OF WAY
EXISTING EDGE OF PAVEMENT
NO EARTH DITCH CURRENTLY EXISTS ACROSS PROPOSED DRIVEWAY APPROACH
LIMITS OF GRADING
INSTALL 24" X 48" X 12" DIA. PLACED ROCK RIP-RAP
CLEAR AND RESHAPE 35 LIN. FT. OF EXISTING EARTH SWALE
INV. 864.89
12" CMP
EXISTING 12" DIA. CMP
INSTALL 24" X 24" X 12" DIA. PLACED ROCK RIP-RAP
REMOVE EXISTING PILASTER AND 14 L.F. OF RETAINING WALL
CONSTRUCT NEW PILASTER PER SECTION D-D SHOWN ON SHEET 4
APPROXIMATE LOCATION OF TREES PER 2007 GOOGLE EARTH IMAGERY
SEDIMENT ROLL PER DETAIL SHOWN ON SHEET 2
CONSTRUCT 80 LIN. FT. OF 24" WIDE VEGETATED SWALE
INSTALL WHARF HYDRANT
INSTALL 24" X 12" X 12" DIA. PLACED ROCK RIP-RAP
APPROXIMATE LOCATION OF PORTABLE SANITATION FACILITY
EXISTING MASONRY WALL
CONSTRUCT 12" WIDE VEGETATED SWALE BEHIND WALL
2:1 SLOPE MAX
TEMPORARY MATERIAL AND EQUIPMENT STORAGE
TEMPORARY STOCKPILE LOCATION
EXISTING PERIMETER ROAD
CONCRETE WASTE WASH AREA PER DETAIL SHOWN ON SHEET 2
LIMITS OF GRADING 1+45.52 884.50
PT = 2+22.96
CLOSED END
EXIST. FLOW

SCALE 1"=10'

PLAN VIEW

EXISTING ROUGH GRADED DRIVEWAY WITH RETAINING WALL, GATE AND PILASTERS

PROPOSED FINISHED GRADING, STRUCTURAL SECTION, CURBS, DRAINAGE STRUCTURE AND RETAINING WALL FOOTING ADDITION

EARTHWORK

CUT: 226 CUBIC YARDS
FILL: 138 CUBIC YARDS
NET: 88 CUBIC YARDS CUT

AREA OF DISTURBANCE:
APPROXIMATELY 7,967 SQ. FT.

REGISTERED PROFESSIONAL ENGINEER BELINDA A. TALUBAN No. 84217 Exp. 6/30/21 CIVIL STATE OF CALIFORNIA

DATED DECEMBER 2, 2019

REVISED 9-23-19 A.S.

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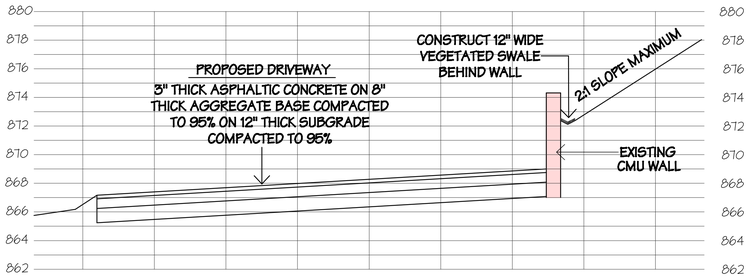
4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA
ASSESSOR'S PARCEL NUMBER 023-010-061-0

PROPOSED DRIVEWAY
PREPARED FOR
CHARLES WILSON

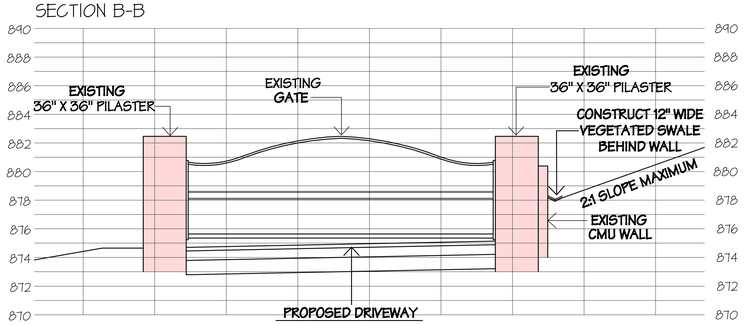
SCALE AS SHOWN JOB NO. 4175
DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 3 OF 8

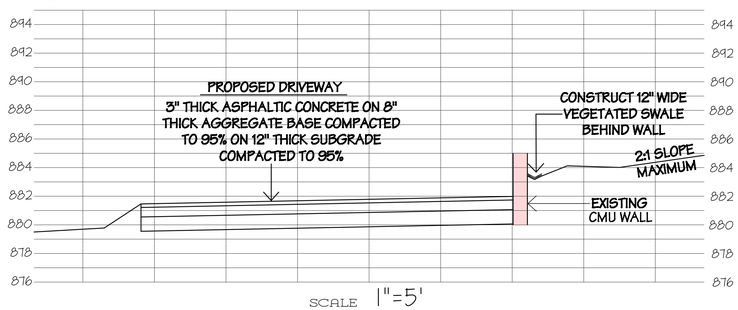
SECTION A-A



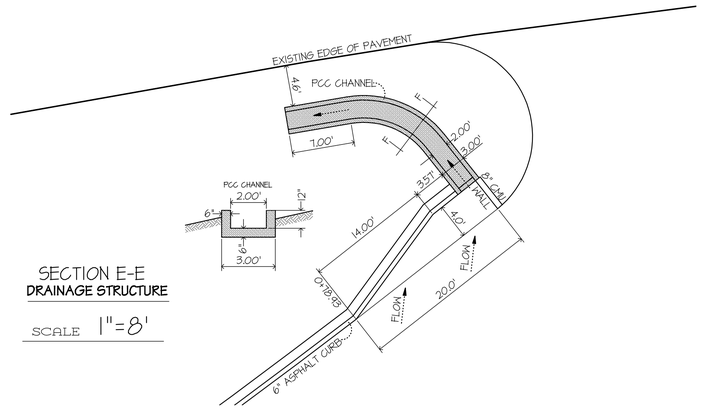
SECTION B-B



SECTION C-C



SCALE 1"=5'

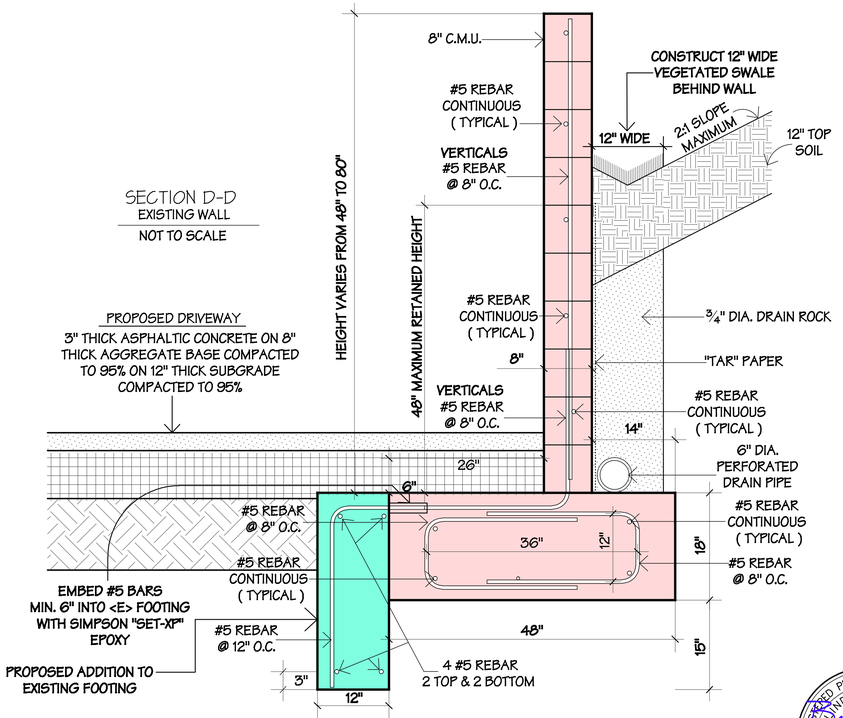


SECTION E-E
DRAINAGE STRUCTURE

SCALE 1"=8'

SECTION D-D
EXISTING WALL

NOT TO SCALE



PROPOSED DRIVEWAY

3" THICK ASPHALTIC CONCRETE ON 8" THICK AGGREGATE BASE COMPACTED TO 95% ON 12" THICK SUBGRADE COMPACTED TO 95%

REGISTERED PROFESSIONAL ENGINEER
BRENDA A. TALLEY
No. C42177
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

DATED DECEMBER 2, 2019

REVISED 9-23-19 A.S.

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4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA

ASSESSOR'S PARCEL NUMBER 023-010-061-0

DRIVEWAY DETAILS

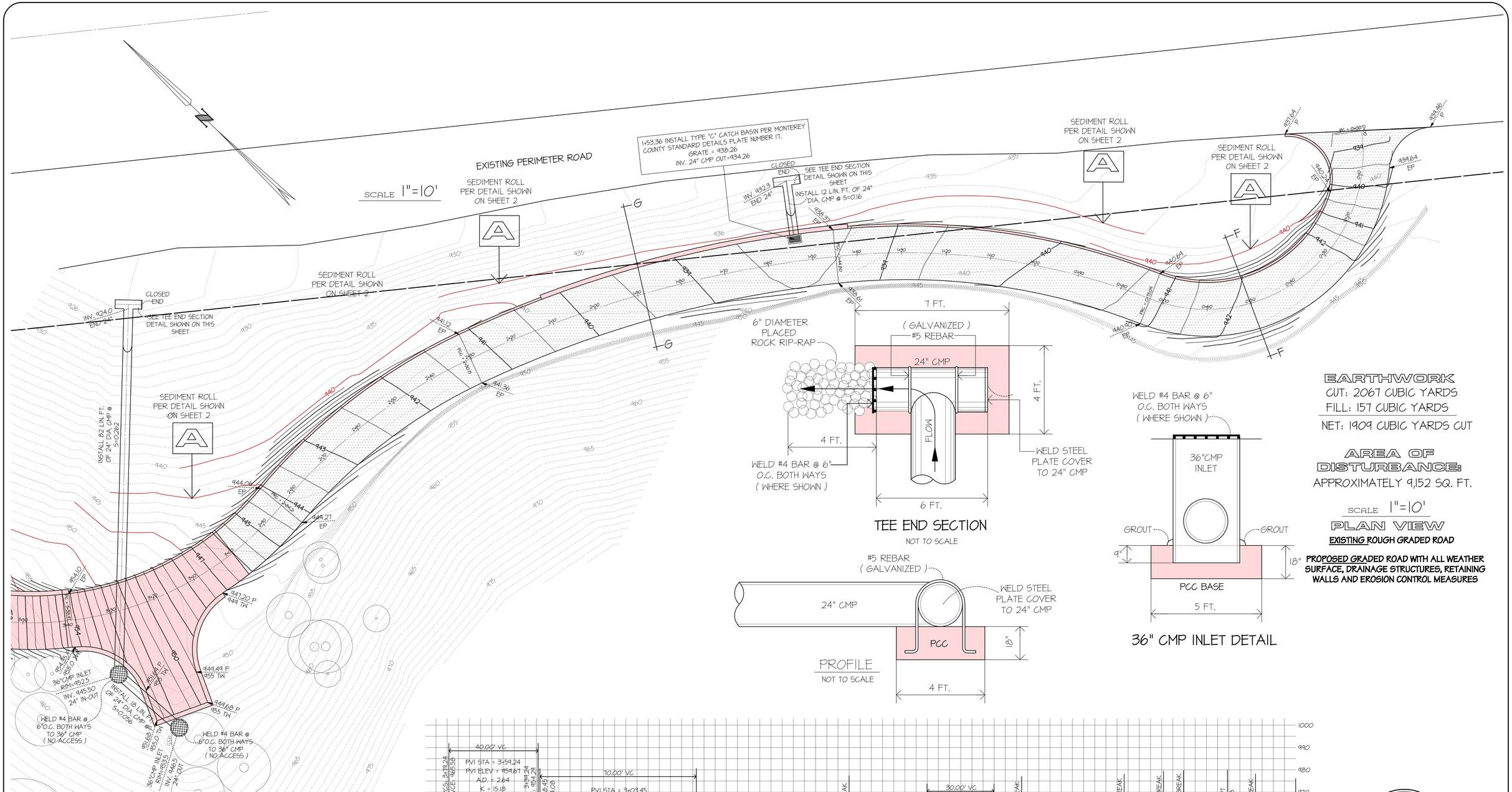
PREPARED FOR

CHARLES WILSON

SCALE AS SHOWN JOB NO. 4175

DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 4 OF 8



EARTHWORK

CUT: 2067 CUBIC YARDS

FILL: 157 CUBIC YARDS

NET: 1909 CUBIC YARDS CUT

AREA OF DISTURBANCE:

APPROXIMATELY 9,152 SQ. FT.

SCALE 1"=10'

PLAN VIEW

EXISTING ROUGH GRADED ROAD

PROPOSED GRADED ROAD WITH ALL WEATHER SURFACE, DRAINAGE STRUCTURES, RETAINING WALLS AND EROSION CONTROL MEASURES

REGISTERED PROFESSIONAL ENGINEER
BRENDA A. TALBOT
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

DATED DECEMBER 2, 2019

REVISED 9-23-19 A.S.

H. D. PETERS CO.
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4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA

ASSESSOR'S PARCEL NUMBER 023-010-061-0

PRIVATE DRIVEWAY

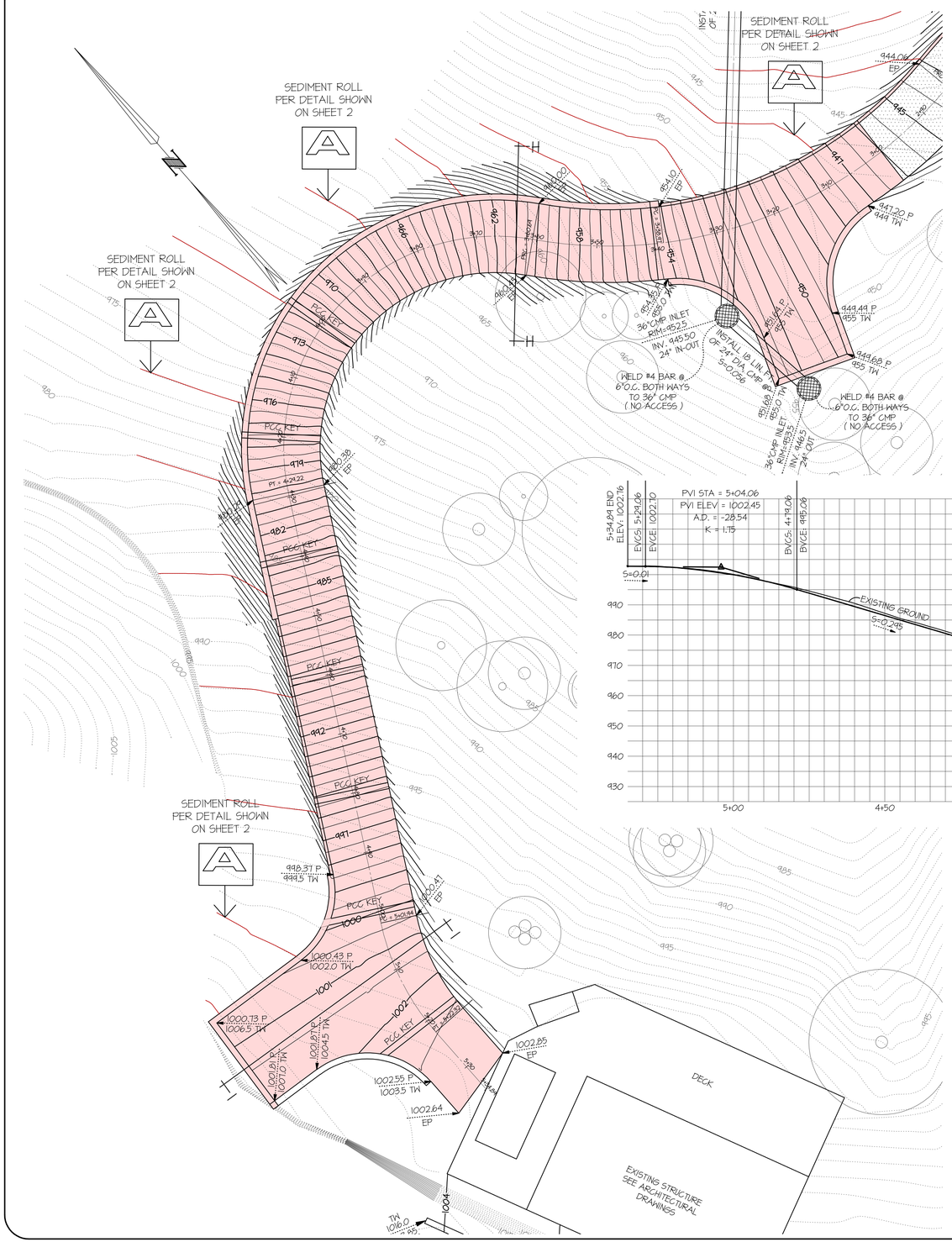
PREPARED FOR

CHARLES WILSON

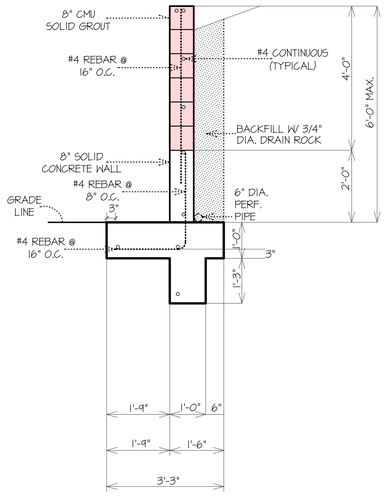
SCALE 1"=10' JOB NO. 4175

DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 5 OF 8

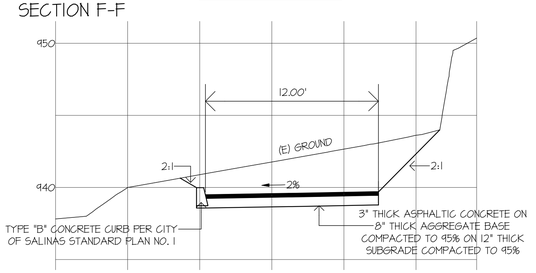


RETAINING WALL

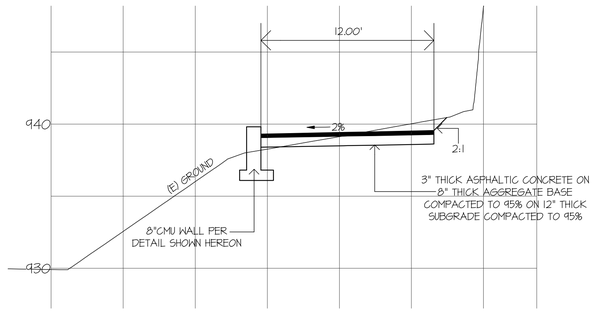


SCALE 1"=5'

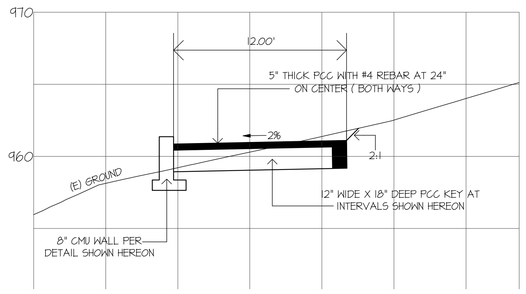
SECTION F-F



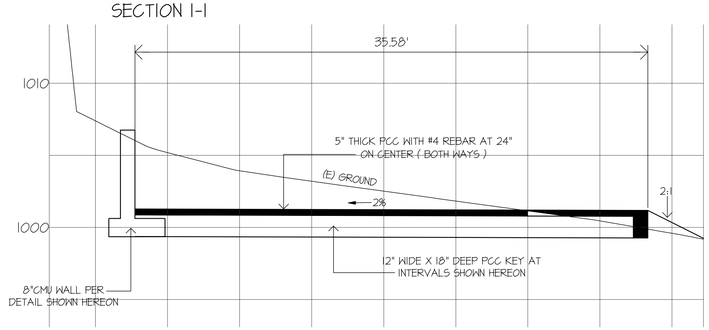
SECTION G-G



SECTION H-H



SECTION I-I



REGISTERED PROFESSIONAL ENGINEER
BRINDA A. TALIBAO
No. 42173
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

DATED DECEMBER 2, 2019

REVISED 9-23-19 A.S.

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4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA

ASSESSOR'S PARCEL NUMBER 023-010-061-0

PRIVATE DRIVEWAY

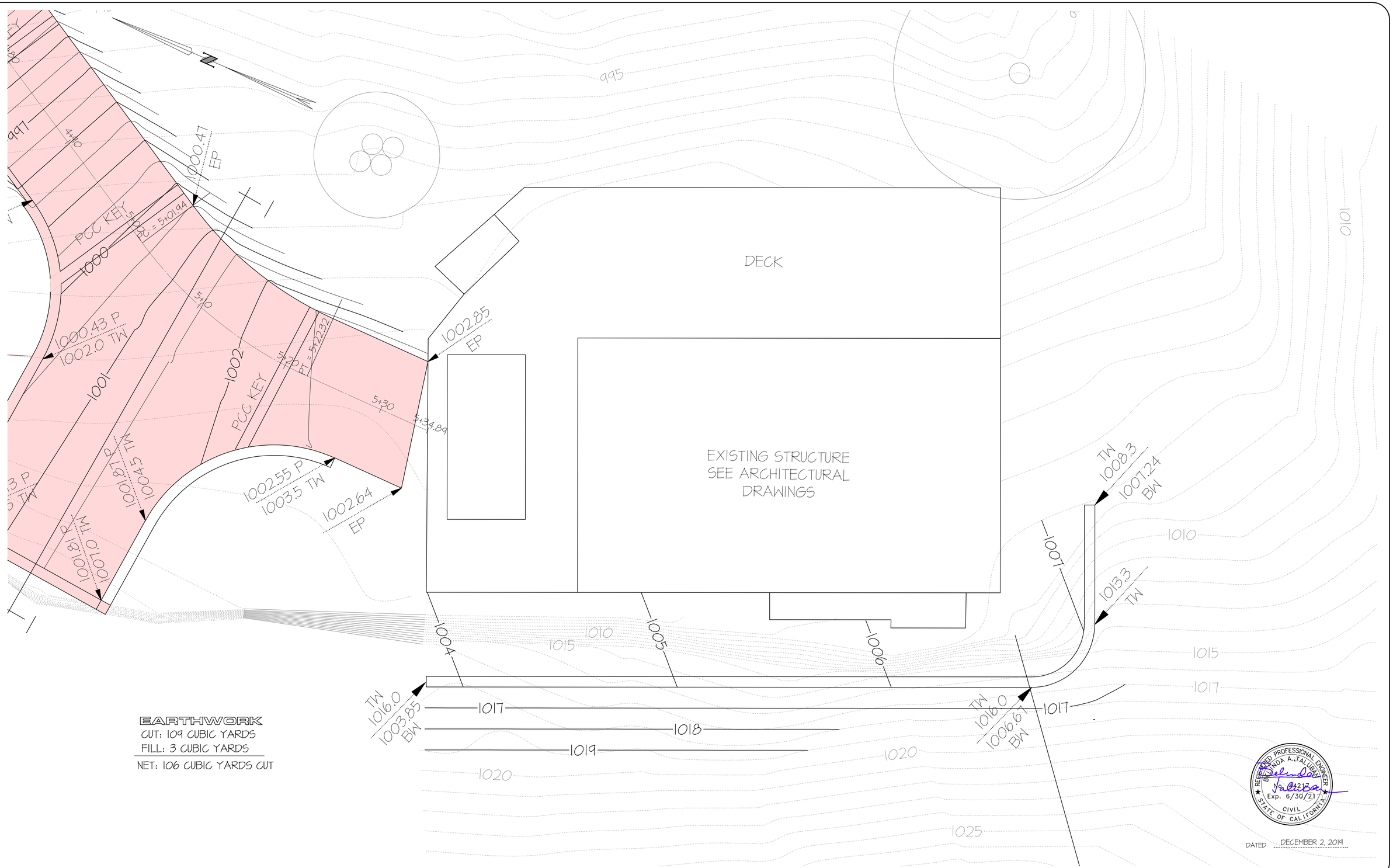
PREPARED FOR

CHARLES WILSON

SCALE 1"=10' JOB NO. 4175

DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 6 OF 8



EARTHWORK
CUT: 109 CUBIC YARDS
FILL: 3 CUBIC YARDS
NET: 106 CUBIC YARDS CUT

REGISTERED PROFESSIONAL ENGINEER
BRENDA A. TALBOT
No. C42178
Exp. 6/30/21
CIVIL
STATE OF CALIFORNIA

DATED DECEMBER 2, 2019

REVISED 9-23-19 A.S.

H. D. PETERS CO.
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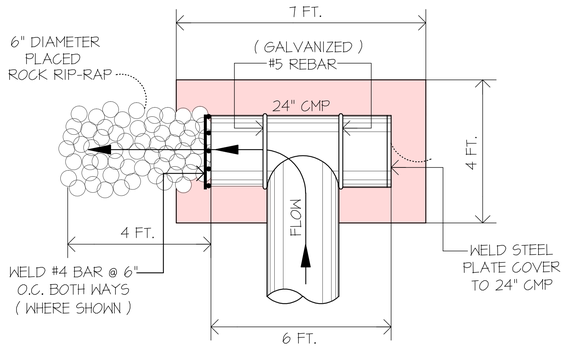
4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA
ASSESSOR'S PARCEL NUMBER 023-010-061-0

PROPOSED CARGO BOX RESIDENCE
WITH RETROFIT
PREPARED FOR
CHARLES WILSON

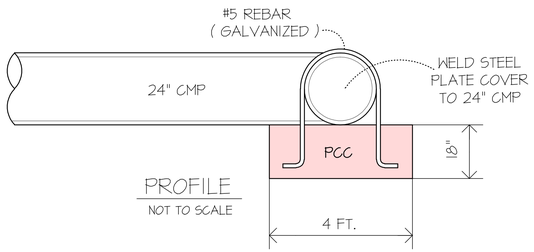
SCALE 1"=4' JOB NO. 4175
DATE 12-2-2019 FILE NO. 4175 RESTORE

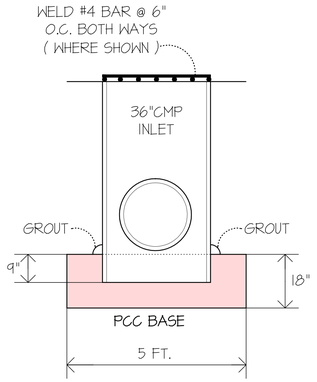
SHEET 7 OF 8



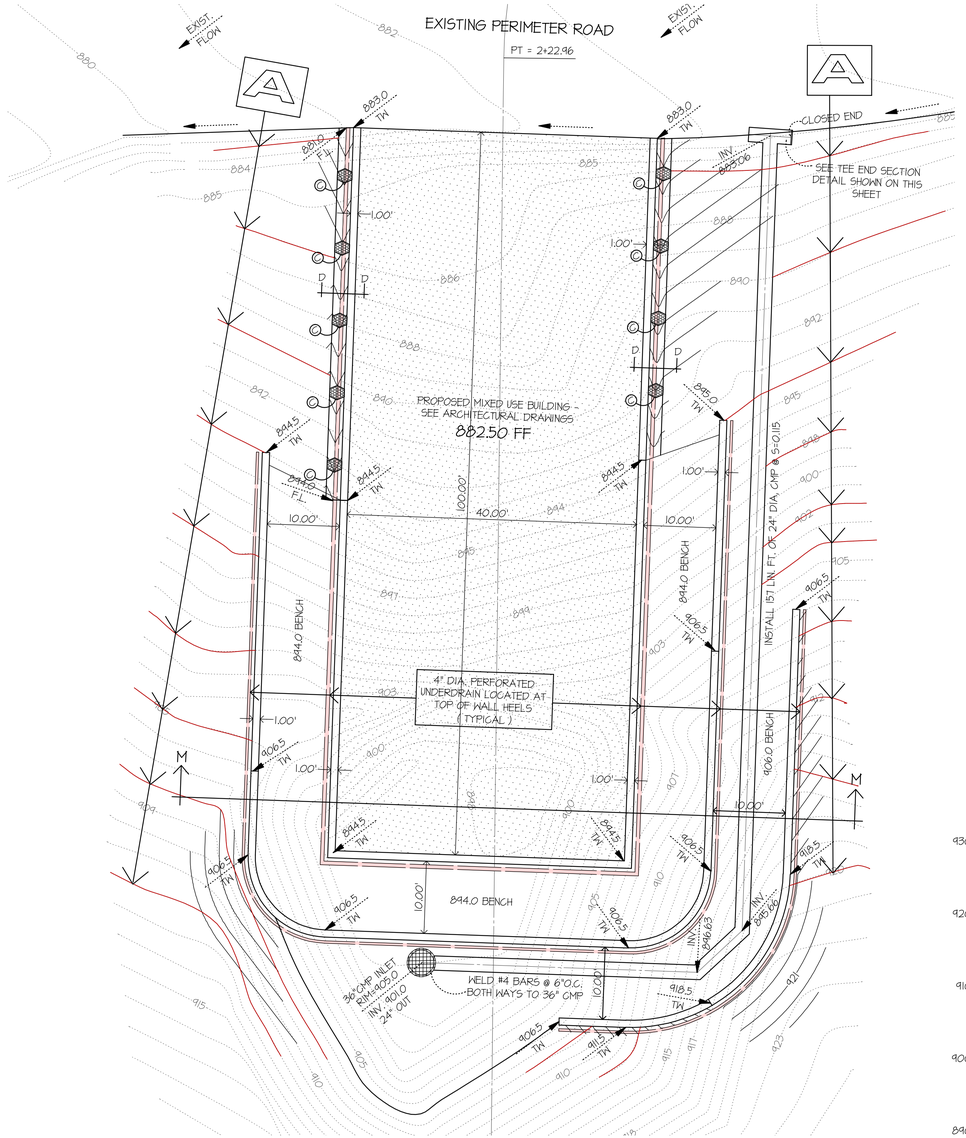
TEE END SECTION

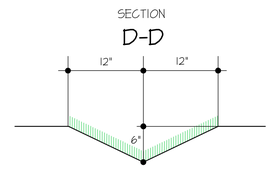
NOT TO SCALE



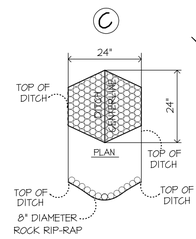


36" CMP INLET DETAIL

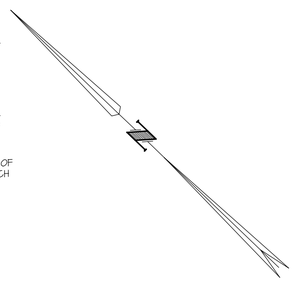




VEGETATED
DRAINAGE SWALE
NO SCALE



CHECK DAM
NOT TO SCALE



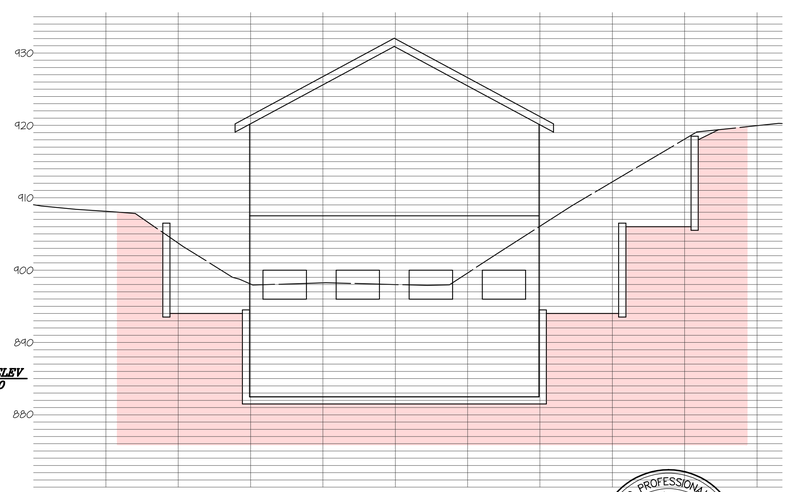
EARTHWORK
CUT: 2067 CUBIC YARDS
FILL: 157 CUBIC YARDS
NET: 1909 CUBIC YARDS CUT

AREA OF DISTURBANCE:
APPROXIMATELY 9,608 SQ. FT.

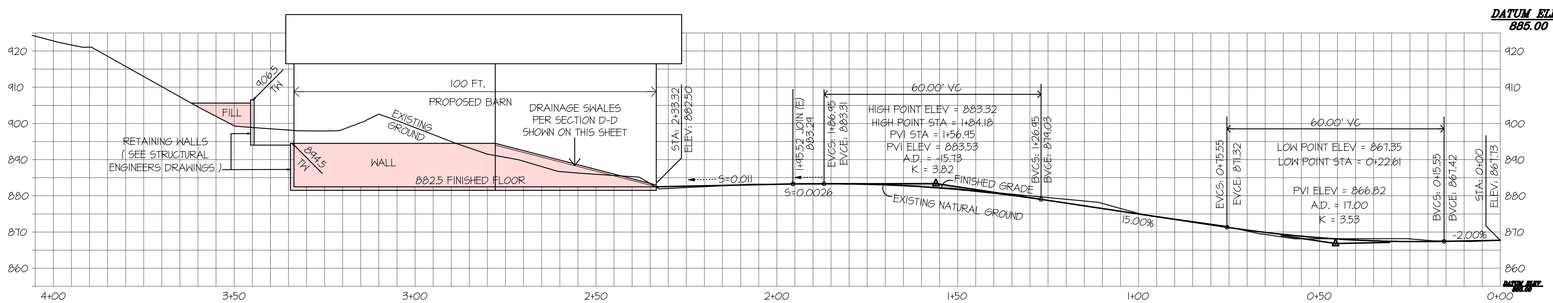
SCALE 1"=10'

PLAN VIEW
EXISTING ROUGH GRADED SITE

PROPOSED MIXED USE BUILDING FINISHED GRADING, DRAINAGE STRUCTURES, RETAINING WALLS AND EROSION CONTROL MEASURES



SECTION M-M



DRIVEWAY CENTERLINE TO MIXED USE BUILDING SCALE 1"=20'

REVISED 9-23-19 A.S.

DATED DECEMBER 2, 2019

REGISTERED PROFESSIONAL ENGINEER BRENDA A. TALLURI Exp. 6/30/21 CIVIL STATE OF CALIFORNIA

H. D. PETERS CO.
ENGINEERING - SURVEYING - LAND PLANNING
119 CENTRAL AVENUE - POST OFFICE BOX 512 SALINAS CALIFORNIA 93902 PH (831) 424-3961 FAX (831) 424-2746

4807 SAN JUAN CANYON ROAD, SAN JUAN BAUTISTA, CA

ASSESSOR'S PARCEL NUMBER 023-010-061-0

PROPOSED MIXED USE BLDG.
PREPARED FOR
CHARLES WILSON

SCALE AS SHOWN JOB NO. 4175
DATE 12-2-2019 FILE NO. 4175 RESTORE

SHEET 8 OF 8

APPENDIX B

BIOLOGICAL ASSESSMENT OF AREAS IMPACTED BY NON-PERMITTED GRADING ACTIVITIES

THOMPSON
WILDLAND MANAGEMENT
Environmental Management & Conservation Services
International Society of Arboriculture Certified Arborist # WE-7468A
Department of Pesticide Regulation Qualified Applicator Lic. #QL50949 B
Environmental & Arborist Assessments, Protection, Restoration, Monitoring & Reporting
Wildland Fire Property Protection, Fuel Reduction & Vegetation Management
Invasive Weed Control, and Habitat Restoration & Management
Soil Erosion & Sedimentation Control
Resource Ecologist

September 3, 2018

Mr. Charles Wilson
San Juan Canyon Road
San Juan Bautista, CA. 95045
A.P.N: 023-010-061-000

Subject: Biological assessment of areas impacted by non-permitted grading activities

The purpose of this report is to address a citation issued by the *San Benito County Planning & Building Department* regarding violations that have occurred on the Wilson property located off of San Juan Canyon Road in San Benito County (APN's: 023-010-061). Violations issued by the County that are addressed in this report include non-permitted grading operations (including on slopes in excess of 25% grade); soil disturbance that increases the potential for erosion problems, sediment runoff and colonization of non-native invasive plants; and the non-permitted removal of native specie trees and impacts to woodland habitat on the subject property. The objective of the site assessment and corresponding report is to document and evaluate impacts to ecological resources associated with non-permitted grading activities. Additionally, this document provides recommendations and remediation measures that will assist in effectively restoring previously impacted areas and protecting habitat and natural resources from further impacts associated with past site disturbance.

This report includes the following information: 1) A description of the site; 2) an assessment of non-permitted grading activities; 3) impacts to trees and woodland habitat; and 4) site restoration and remediation recommendations. Where possible, the characteristics and conditions described in this report are depicted in the accompanying photographs located at the end of the report (refer to attached photos, *Figures 1-9*). Additionally, property features and characteristics and areas impacted by past non-permitted activities are identified on the corresponding *Exhibit A: Preliminary Site Plan* and aerial image map.

It should be noted that the property owner accepts responsibility for past non-permitted grading activities and is committed to addressing and resolving County issued violations. The property owner will properly implement the appropriate site remediation and resource protection best management practices (BMP's) that are necessary to satisfy County conditions and restore the impacted areas of concern (also refer to property *Storm Water Pollution Prevention Plan* [*SWPPP*] for erosion control and restoration recommendations).

I. **PROPERTY DESCRIPTION**

Non-permitted grading activities have occurred on the Wilson property located off of San Juan Canyon Road near San Juan Bautista in San Benito County. The approximate acreage of this rural property is 128 acres. The total area that was impacted and disturbed by non-permitted grading operations on this parcel is approximately 1.91 acres. The subject property contains a single family living unit (appears to be unoccupied at this time), two water tanks, a propane tank, a network of mostly single lane earthen roads, stored materials and equipment, and several vehicles and construction type equipment that are currently inactive.

County issued violations consist of non-permitted grading activities (including on slopes in excess of 25% grade) that has resulted in vegetation clearing and soil disturbance that increases the potential for erosion and sedimentation problems (refer to *Figures 1-9*). Non-permitted vegetation clearing and grading activities was performed in preparation for two proposed building sites located near the main gate and entrance to the property off of San Juan Canyon Road, as well as to widen existing narrow roads that were already occurring on the subject property, but were overgrown with vegetation (refer to the *Exhibit A: Preliminary Site Plan* that identifies the impacted areas of concern). Additionally, some of the non-permitted grading that was performed was apparently done in response to fire hazard concerns to reduce combustible fuel loads in this densely vegetated woodland environment that is at high risk for hazardous and destructive wildland fire events.

This rural parcel is located in mixed woodland habitat that is dominated by indigenous Coast Live Oak, Black Oak and dense understory scrub type vegetation (refer to attached photos, *Figures 1-9*). With the exception of a few relatively small clearings, canopy cover is relatively dense in this mature and well established mixed woodland vegetation community. Topography and terrain primarily consist of steep slopes, ridges, drainages and canyons.

Dominant overstory tree and understory scrub vegetation inhabiting the property primarily consist of the following native species: Coast Live Oak (*Quercus agrifolia*), Black Oak (*Quercus kelloggii*), California Buckeye (Aesculus californica), Blue Elderberry (Sambucus mexicana), Poison Oak (*Toxicodendron diversilobum*), Toyon

(*Heteromeles arbutifolia*), Coffeeberry (*Rhamnus californica*), Pacific Blackberry (*Rubus ursinus*), Sticky Monkey Flower (*Mimulus aurantiacus*), Common Snowberry (*Symphoricarpos albus*), Ocean Spray (*Holodiscus discolor*), Coyote Bush (*Baccharis pilularis*), Bush Lupine (*Lupinus sp*), Deer Weed (*Lotus scoparius*), California Honeysuckle Vine (*Lonicera hispidula*), Wild Cucumber (*Echinocystis lobata*), Hedge Nettle/Wood Mint (*Stachys bullata)*, Common Yarrow (*Achillea millefolium*), California Bee Plant (Scrophularia californica), Common Mugwort (*Artemisia vulgaris*), Vetch (*Vicia americana*), Indian Paintbrush (*Castillega coccinea*), Yerba Buena (*Clinopodium douglasii*), Miner's Lettuce (*Claytonia perfoliata*), Giant Wildrye (*Elymus condensatus*) and several species of ferns. Non-native understory vegetation that is fairly abundant and common on the property includes invasive Italian Thistle (*Carduus pycnocephalus*), Bull Thistle (*Cirsium vulgare*), Milk Thistle (*Silybum marianum*), Tocalote/Maltese Star Thistle (*Centaurea melitensis*), Black Mustard (*Brassica nigra*) and exotic annual grasses (e.g., Ripgut Brome [*Bromus diandrus*], Italian Rye [*Lolium multiflorum*]), all of which are noxious weeds that are degrading to habitat and increase hazardous wildland fire fuel loads.

Natural recruitment and regeneration of oak trees on the parcel appears to be occurring in levels that are sufficient for supporting and sustaining woodland health and character, and woodland pathogens and diseases appear to be absent in levels that are detrimental to the health and viability of trees and habitat. Protected special status flora and fauna and/or sensitive habitat (e.g., aquatic resources, such as wetland and/or riparian habitat) were not observed nor are they known to occur on the subject property. The most valuable habitat type occurring on the subject property is mixed oak woodland, which was impacted by past grading activities.

It should be noted that nesting birds were not observed or detected during a recent property assessment. In San Benito County the nesting season may begin as early as February and continue through August, with peak nesting occurring in the spring season. Soils on the parcel appear to be stable and sufficient for supporting property development and slope stabilization activities.

County issued violations include non-permitted grading activities (including on slopes in excess of 25% grade) that has resulted in vegetation clearing and soil disturbance that increases erosion and sedimentation concerns, as well as impacts to oak woodland habitat, which includes the removal of several oak trees that were 6 inch DBH (diameter at breast height) or larger in size. Based on the current density of trees located in this woodland environment, it is estimated that a minimum of thirty (30) 6 inch DBH or larger oak trees were removed during non-permitted grading operations; however, there presently is no remaining evidence of trees removed that would indicate the exact number, location and health of trees removed.

As previously noted, sensitive and protected habitat (e.g., wetlands or other aquatic resources), and special status flora and fauna were not observed during a recent property assessment and are not known to occur on the subject parcel. There is no indication or evidence that sensitive habitat and/or special status species were impacted or adversely affected by past non-permitted grading operations, exception being the removal of several native specie oak trees that will be mitigated by the planting of 30 replacement trees (refer to recommendations in following section).

The restoration measures provided in this report (refer to following section) will be implemented to effectively address impacts associated with non-permitted grading operations. The proper and effective execution of restoration and resource protection BMP's will serve to stabilize and restore disturbed and impacted areas, which will assist in reducing erosion and sedimentation concerns and resolving County issued violations.

II. **REMEDIATION & RESTORATION RECOMMENDATIONS**

The following section provides recommendations and BMP's for stabilizing, restoring and protecting areas impacted by non-permitted grading activities that will assist in effectively addressing and resolving *San Benito County Planning & Building Department* issued violations. Also refer to recommendations provided in the SWPPP that will be prepared for the subject parcel. The property owner, contractor and appropriate consultants will be involved in the proper installation of BMP measures. Restoration and remediation recommendations are as follows:

A. Restoration and Erosion & Sedimentation Control Measures:

Note: These measures are to be applied to the impacted areas identified on the *Exhibit A: Preliminary Site Plan* aerial image site map.

1) Obtain necessary permits and authorization to proceed.
2) To the extent possible, restore previously disturbed areas impacted by non-permitted grading activities to natural grade.
3) If necessary install sedimentation control measures (e.g., silt fence) along downslope perimeter of areas to be restored. Additionally, take measures to avoid impacting nearby trees, such as the installation of high visibility exclusionary fencing to prevent unnecessary encroachment into critical root zones and surrounding woodland areas.
4) Using proper equipment and soil stabilization BMP's, properly grade and shape disturbed and exposed areas in a manner that will reduce slope steepness and minimize the probability of erosion problems. To the extent possible shape and restore disturbed areas to original natural grade. Restored areas should be adequately compacted to provide sub-grade and surface stability, but not over compacted, which could impede vegetation establishment and revegetation efforts. Final grade should consist of native topsoil, and designed and engineered in a manner to minimize erosion and sedimentation problems, maximize soil stabilization and establishment of native vegetation, and protect trees and other natural resources.

5) On steeper exposed areas (e.g., greater than 25% grade) properly install slope interruption measures (e.g., straw wattles or equivalent) along level contour to help shorten the length of slopes, which will assist in preventing rilling and gullying on steeper slopes. Following the installation of slope interruption measures in steeper areas, apply native seed mix and appropriate erosion control blankets by October 15, 2018.
6) Avoid the application of fill material against the trunk of oak trees or within the critical root zone of trees on the site.
7) Upon completion of restoration grading activities apply a native seed mix to exposed soil surfaces followed by the installation of appropriate soil stabilization measures. A seed mix should be applied prior to the installation of soil stabilization measures (e.g., erosion control blankets and/or mulch depending on slope steepness) to maximize soil to seed contact, and to promote successful seed germination and vegetation establishment. Following the application of a seed mix, erosion control blankets (e.g., jute net) should be applied to steeper areas, and mulch (e.g., weed free rice straw mulch and/or woodchip mulch) should be applied to flatter or moderately sloped exposed areas. Slope revegetation will assist in stabilizing exposed slopes, and depending on various factors (e.g., below average rainfall) the restored areas may benefit from supplemental watering to assist in achieving successful vegetation establishment and cover. If necessary provide effective suppression and control of exotic invasive weeds to promote and support the establishment of desirable native plant species. The following native seed mix should ideally be applied using a hand operated seed broadcaster to ensure uniform coverage and distribution:
    a. Apply 15-20 lbs. per acre of *Quickguard* or *Annual Regreen* (both are sterile, non-reseeding, fast growing wheat/rye grass hybrids), and/or the native annual Three-weeks Fescue (*Vulpia microstachys*) grass seed.
    b. Apply 10 lbs. per acre of native perennial California Brome (*Bromus carinatus*) grass seed.
    c. Apply 10 lbs. per acre of native perennial Blue Wildrye (*Elymus glaucus*).
    d. Apply 10 lbs. per acre of native perennial Purple Needle Grass (*Nassella pulchra*).
8) Perform necessary monitoring and maintenance, including frequent wet season monitoring (i.e., pre-storm, storm and post-storm inspections), and if erosion and sedimentation problems occur document the problem and take necessary corrective action.
9) As previously disturbed and exposed areas begin to revegetate perform targeted control and management of non-native invasive weeds (e.g., Italian Thistle) that may compromise restoration efforts and degrade habitat. Invasive weed species have the potential of aggressively colonizing previously disturbed areas and interfering with successful site restoration. Follow up treatments will likely be necessary to prevent noxious weed establishment and proliferation.

B. Tree Removal & Replacement:

Based on an analysis of current tree density in the areas impacted by past non-permitted grading activities, a total of approximately 30 Coast Live Oak (*Quercus agrifolia*) trees (6 inch DBH or larger) are estimated to have been removed without the necessary permits. There currently are no physical remnants of trees that were removed nor is there visual proof as to the exact size, location, and overall health and condition of the subject trees at the time of removal. As a result of the unauthorized removal of an estimated 30 native specie oak trees, the property owner has agreed to plant twenty (20) 1 to 5 gallon Coast Live Oak (*Quercus agrifolia*) seedlings/saplings and ten (10) 1 to 5 gallon Black Oak (*Quercus kelloggii*) seedlings/saplings to mitigate impacts associated with non-permitted tree removal and disturbance to woodland habitat. These 30 replacement plantings shall survive a 2-year monitoring period to satisfy County mitigation requirements.

C. Monitoring & Maintenance:

Conduct routine monitoring of restoration sites, and on a as needed basis perform necessary maintenance, modifications and improvements to resource protection and restoration BMP's (e.g., erosion & sedimentation control and soil stabilization measures) to maximize success and achieve project goals and objectives. Additionally, the overall health and recovery status of impacted areas should be periodically evaluated to determine if any additional remedial action is necessary to improve restoration progress and to prevent potential problems and set backs from occurring that are attributed to previous site disturbance (e.g., slope destabilization, invasive weed development, tree stress and decline). Furthermore, during the wet season perform regular inspections of the site before, during and following significant rain events. If problems or deficiencies are observed, such as erosion problems and sediment runoff, perform necessary maintenance and modifications, report it to the appropriate authorities, and document corrective action with detailed photographs and field notes.

III. CONCLUSION

In conclusion, the recommendations provided in this report address violations issued by the *San Benito County Planning & Building Department* for the Wilson property located off of San Juan Canyon Road near San Juan Bautista. The recommendations provided in this report, as well as the SWPPP that is being prepared by another party, will assist in stabilizing and restoring areas impacted by past non-permitted grading activities. As previously noted, special status species were not observed or detected during the site assessment and no protection status species are known to occur on the subject property. Additionally, in order to achieve a positive and desirable outcome it is important for the property owner to maintain contact with the appropriate *San Benito County* authorities and to make certain County officials are aware of progress being made.

Thank you and please let me know if you have any questions or need additional information.

Best regards,

_____ _____

Rob Thompson
Resource Ecologist
ISA Certified Arborist

Date

Thompson Wildland Management (TWM)
57 Via Del Rey
Monterey, CA. 93940
Office (831) 372-3796; Cell (831) 277-1419
Email: thompsonwrm@gmail.com ; Website: www.wildlandmanagement.com

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CLIENT ACKNOWLEDGES THAT THIS REPORT, AND ANY OPINIONS, ADVICE OR RECOMMENDATIONS EXPRESSED OR GIVEN IN IT, ARE BASED ON THE INFORMATION SUPPLIED BY CLIENT AND ON THE DATA, INSPECTIONS, MEASUREMENTS AND ANALYSIS CARRIED OUT OR OBTAINED BY TWM.

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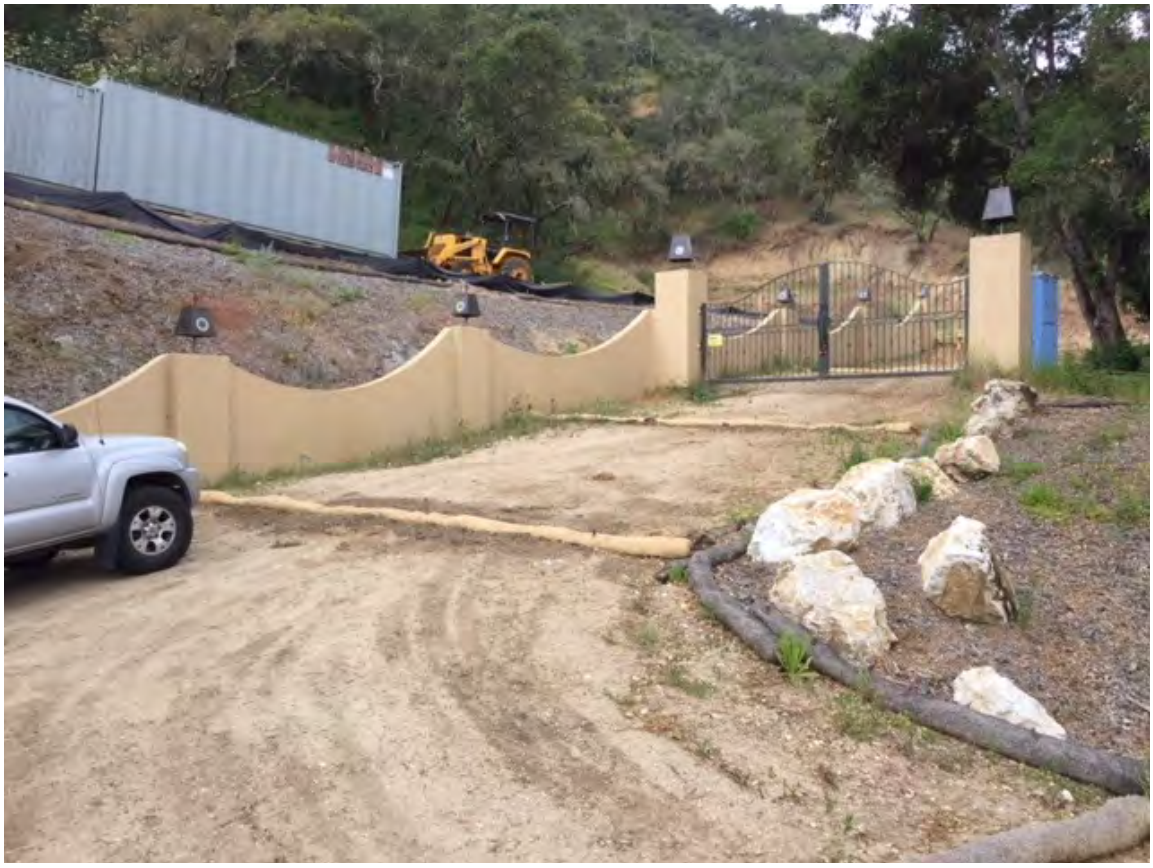


Figure 1. Gated entrance to property off of San Juan Canyon Road. Temporary erosion & sedimentation control measures have been installed to prevent sediment deposition onto public roadway. The plan is to pave the entrance and driveway to the property.

Figure 2. Slope stabilization and sedimentation control measures have been installed and maintained.

Figure 3. Another view of area near entrance that has been disturbed and exposed by grading activities. Erosion & sedimentation control measures have been installed and maintained.

Figure 4. Several oaks trees have been removed during grading operations, but there is no indication or evidence that protected sensitive habitat or special status species is occurring on the subject property.

Figure 5. Another area near entrance where several oak trees have been removed during grading operations. As previously stated, there is no indication or evidence that protected habitat or special status species have been affected by grading activities.

Figure 6. Existing dirt road on property has been widened, which resulted in some oak trees being removed.

Figure 7. Some tree removal and erosion problems have occurred on disturbed cut slope along property road that was widened. Straw bale sediment traps have been installed along inside edge of road where storm water runoff is occurring.

Figure 8. Erosion is occurring on steep upper section of road near the existing homesite. Refer to SWPPP that is being prepared to address erosion and sedimentation control issues.

Figure 9. Some of the disturbed areas are being colonized by non-native invasive weeds, such as Italian Thistle. Efforts should be made to control and manage noxious weed populations that are degrading to habitat.

APPENDIX C

GEOTECHNICAL INVESTIGATION REPORT

SOIL SURVEYS GROUP INC.

103 CHURCH ST • SALINAS, CALIFORNIA 93901 • TELEPHONE (831) 757-2172

September 7, 2018
Job #6563

Mr. Charles Wilson Jr.
P.O. Box 5367
Salinas, CA 93915

Dear Mr. Wilson:

Submitted herewith is the report of our Geotechnical Investigation for the proposed new residence, barn, storage buildings, driveways and water system to be located on San Juan Canyon Road, APN 023-010-061, near San Juan Bautista, California. Five borings were drilled on February 20, 2018 for geotechnical investigation purposes. Laboratory tests were subsequently made on driven soil core samples taken from the borings to determine the near surface and subsurface soil conditions and suitability for the construction of the proposed new residence, barn, storage buildings, driveways and water system. We find that the project site is suitable for the proposed use with the recommendations made herein.

It is a pleasure working with you on this project. If you have any questions regarding our geotechnical investigation or this report, please contact us.

Very truly yours,

SOIL SURVEYS GROUP, INC.

Belinda A. Taluban, P.E.
R.C.E. 44217

Michelle M. Garcia, C.E.G.
Engineering Geologist 2668

BAT/MMG/ke

cc. County of San Benito

TABLE OF CONTENTS

SOIL SURVEYS GROUP INC.

103 CHURCH ST • SALINAS, CALIFORNIA 93901 • TELEPHONE (831) 757-2172

GEOTECHNICAL INVESTIGATION

FOR THE PROPOSED NEW DEVELOPMENT

TO BE LOCATED ON SAN JUAN CANYON ROAD

APN 023-010-061,

NEAR SAN JUAN BAUTISTA, CALIFORNIA

FOR MR. CHARLES WILSON JR.

SEPTEMBER 7, 2018; JOB #6563

I. INTRODUCTION:

This Geotechnical Investigation was made to determine the suitability of the soils at the project site for the proposed new residence, barn, storage buildings, driveways and water system to be located on San Juan Canyon Road, APN 023-010-061, near San Juan Bautista, California. Five borings were drilled on February 20, 2018, and core samples were taken from the borings for laboratory testing. The boring logs, our field observations, and field and laboratory test data were analyzed to determine the following:

1. **Suitability of the soils at the project site for the proposed new residence, barn, storage buildings, driveways and water system.**
2. **Unsuitable or unstable soil conditions, if any.**
3. **Foundation and retaining wall design criteria for the proposed new residence, barn and storage buildings.**
4. **Subsurface groundwater and soil moisture considerations.**
5. **Surface drainage considerations.**
6. **Pavement design criteria.**
7. **Analysis of seismic hazards and seismic design factors per the 2016 California Building Code.**

Site Setting: The subject 122.6 acre parcel is on the southerly side of San Juan Canyon Road to the southeast of San Juan Bautista. The parcel slopes down towards San Juan Canyon Road. An old quarry road runs parallel to San Juan Canyon Road and connects the driveway entrance to the water tank pads. The roadway has been extended from the water tanks up to the residence. The upper portions of this dirt roadway are steep and the fill materials are eroding. The slopes surrounding the proposed building locations are typically steep and heavily vegetated.

II. LABORATORY TEST DATA[1]:

Thirty-five moisture density tests and one moisture test were made from the driven core samples. Standard Penetration Tests (SPT) were performed with a Terzaghi Split Spoon sampler. Core samples were also taken with a 2 ½-inch interior diameter (i.d.) Modified California Sampler. All samplers were driven into the soil by a 140 lb. hammer dropped a vertical distance of 30 inches at the sample location. Results of these tests are shown as follows:

MOISTURE DENSITY TESTS

Boring No.	Depth/ Ft.	Water Content %	Dry Density p.c.f.	Standard penetration Tests, Blows /foot	Pocket Penetrometer Tons S.F.
B-1	2-2.5	4.5	96.7	17	---
B-1	3.5-4	6.3	121.8	35(21)*	3.75
B-1	4-4.5	6.4	125.3	59(35)*	>4.5
B-1	5.5-6	3.9	112.7	69	---
B-1	8.83-9.33	7.6	112.8	74/10"	---
B-1	13.5	5.7	Bulk	50/0"	---
B-1	18.5-18.96	7.1	94.9	50/5.5"	---
B-1	28.5-28.58	4.3	106.2	50/1"	---
B-2	2-2.5	9.0	91.0	10	---
B-2	4-4.5	13.5	93.2	7	---
B-2	5.5-6	11.3+	114.7+	7(4)*	1.0
B-2	6-6.5	10.3	105.0	8(5)*	1.5
B-2	7.5-8	10.5	93.1	8	---
B-2	9.5-10	8.4	89.6	8	0.25
B-2	14.5-15	7.9	93.2	9	---
B-2	19.5-20	5.3	99.8	65	---
B-2	23.5-23.58	8.9	120.6	50/1"	---

[1] Boring Logs are located in Appendix A

B-3	2-2.5	10.4	92.0	9	1.0
B-3	4-4.5	9.4	82.7	9	0.25
B-3	6-6.5	7.1	86.0	15	---
B-3	9.5-10	11.2	94.0	7	---
B-3	14.5-15	2.7	105.7	10	---
B-3	19.5-20	6.3	115.0	36	1.25
B-4	1.5-2	12.4	111.4	18(11)*	4.5
B-4	2-2.5	9.5	111.7	22(13)*	>4.5
B-4	3.5-4	8.3	83.3	8	---
B-4	6-6.5	8.3	99.6	32	1.0
B-4	11-11.5	7.9	103.2	55	1.25
B-4	15-15.38	5.3	99.1	50/4.5"	---
B-5	2-2.5	13.5	109.7	19	2.75
B-5	4-4.5	10.1	93.6	10	1.25
B-5	6-6.5	9.2	85.6	12	0.5
B-5	11-11.5	8.3	91.0	14	0.5
B-5	16-16.5	4.6	94.8	27	---
B-5	20-20.46	3.0	87.9	50/5.5"	---
B-5	25-25.25	4.2	89.8	50/3"	---

*= 2.5-inch mod. Cal not SPT, ( ) = value adjusted to approximate SPT values
+ = Average water content and dry density from Direct Shear data

Nine Sieve Analysis tests were made on driven core samples. Results of these tests are shown as follows:

A.S.T.M. D 422 SIEVE ANALYSIS TEST-Percent Passing

Boring No.	Depth/ Ft.	Sieve No. 4	Sieve No. 10	Sieve No. 20	Sieve No. 30	Sieve No. 40	Sieve No. 100	Sieve No. 200
B-1	4-4.5	98	78	52	44	37	20	13
B-2	6-6.5	94	79	59	52	46	29	22
B-2	14.5-15	91	74	55	48	42	28	22
B-3	9.5-10	92	72	55	49	43	29	21
B-4	3.5-4	97	77	56	48	41	24	16
B-4	6-6.5	99	78	51	43	36	21	15
B-5	2-2.5	99	90	73	65	59	42	34
B-5	11-11.5	99	86	67	59	52	35	27
B-5	20-20.46	100	87	63	54	47	29	20

Nine plasticity index tests were performed on driven core samples. Results of these tests are as follows:

PLASTICITY INDEX TEST

Boring No.	Depth/ Feet	% Passing Sieve No. 40	% Passing Sieve No. 200	Liquid Limit	Plastic Limit	Plasticity Index
B-1	4-4.5	37	13	n/p	non-plastic	n/p
B-2	6-6.5	46	22	25	19	6
B-2	14.5-15	42	22	25	19	6
B-3	9.5-10	43	21	37	26	11
B-4	3.5-4	41	16	30	24	6
B-4	6-6.5	36	15	32	23	9
B-5	2-2.5	59	34	32	18	14
B-5	11-11.5	52	27	25	17	8
B-5	20-20.46	47	20	25	20	5

The test results for samples taken from the borings indicate that the fine fraction of the near surface and deeper subsurface slightly clayey, silty, sandy soils encountered in Boring 2 through 5 are moderately plastic and slightly to moderately expansive. The fine fraction of the near surface silty, sandy soils encountered in Boring 1 at 4.0 to 4.5 feet in depth are non-plastic and non-expansive.

One Direct Shear test was made from a soil sample taken from Boring 2 at 5.5-6 feet below surface. Results of this test are summarized as follows (see Appendix B for full report sheet):

Boring No.	Depth/ Ft.	Internal Frict. Angle, φ^{o}	Cohesion, C p.s.f.	Soil Weight p.c.f.	Description of soil
B-2	5.5-6	28.9	50	127.7	Dark brown clayey SAND

Boring 1 was located on the southern edge of the proposed barn location, near the top of the cut, as shown on Figure II. The near surface soil consists of medium dense, slightly silty, fine to coarse grained decomposed granitic sand and gravels to a depth of three feet, underlain by medium dense to very dense, fine to coarse grained, decomposed granitic sand and gravels to a depth of 18.5 feet. Below this depth, the soil consists of very dense, slightly clayey, silty, fine to coarse grained, decomposed granitic sand and gravels 23 feet in depth, overlying very dense, decomposed granitic rock to the bottom of the boring at 28.58 feet in depth.

Boring 2 was located on the northern edge of the proposed barn location, as shown on Figure II. The near surface soil consists of loose, clayey, silty, fine to coarse grained sand with scattered decomposed granitic gravels to 15 feet in depth, overlying very dense, silty, fine to coarse grained sand with decomposed granitic gravels to the bottom of the boring at 23.58 feet in depth.

Boring 3 was located within the proposed storage building location, as shown in Figure II. The near surface soil consists of loose to medium dense, slightly clayey, silty, fine to coarse grained sand with subangular decomposed granitic gravels to a depth of 15 feet, underlain by dense, clayey, silty, fine to coarse grained sand with scattered gravels to the bottom of the boring at 20 feet in depth.

Boring 4 was located within the proposed driveway location, as shown in Figure II-A. The near surface soil consists of loose to medium dense, silty, fine to coarse grained sand with scattered subangular gravels to a depth of five feet, underlain by dense to very dense, slightly clayey, silty, fine to coarse grained decomposed granitic sand and gravels to the bottom of the boring 15.38 feet in depth.

Boring 5 was located within the proposed residence location, as shown in Figure II-A. The near surface soil consists of medium dense, clayey, silty, fine to coarse grained sand with scattered gravels to a depth of 18 feet, overlying very dense, fine to coarse grained decomposed granitic sand and gravels to the bottom of the boring at 25.25 feet in depth.

No free groundwater was observed in the borings to a maximum explored depth of 28.58 feet. The actual depth to groundwater during rainy months is unknown, but it should be noted that groundwater fluctuations can occur due to variations in rainfall, temperature and other factors not evident during the time of our investigation.

III. SUITABILITY OF SITE FOR PROPOSED USE:

No unsuitable or unstable soil conditions were found at the boring locations except for loose soil encountered in Boring 4 up to four feet; Boring 2 and 3 up to 15 feet in depth and slightly expansive soils at footing depths. In our opinion, the site is suitable for the proposed development with the recommendations made herein, specifically the recommendations for the recompaction of loose soils and the mitigation of expansive soils.

IV. RECOMMENDED FOUNDATION DESIGN CRITERIA:

Spread footings may be used for the building foundations after the site is cleared, grubbed and the proposed building pads are graded, compacted and properly prepared. Spread footings shall be installed to a minimum depth of 18 inches for both single story and two story portions of the proposed buildings. The minimum depths shall be measured from the **inside building pad soil subgrade.** Mitigation for recompaction of all loose soil conditions must be followed.

Allowable foundation pressures after recompaction of the building pad areas are:
Continuous footings = 1800p.s.f.
Isolated rectangular footings = 2000 p.s.f.

Continuous footings shall be reinforced with three #4 steel reinforcement bars; two placed near the bottom of the footing and one placed near the top of the footing. Spread footings shall also meet the minimum requirements of the 2016 California Building Code and the County of San Benito Building ordinances for width, thickness, embedment and reinforcement steel. The new buildings and any future building additions shall be designed in strict accordance with the requirements specified in the 2016 California Building Code, or latest approved edition, to resist seismic forces.

All concrete floor and garage slabs-on-grade shall be a minimum of five inches thick and shall be reinforced with a minimum of #3 steel reinforcement bars at 12 inches on center or #4 steel reinforcement bars placed 24 inches on center, each way and shall extend into perimeter foundation. *The reinforcement steel must be firmly held in the vertical center of the slabs during placement and finishing of concrete with pre-cast concrete dobies.* All new concrete floor slabs-on-grade shall be underlain by an approved 15 mil. vapor barrier installed over a minimum four inch thick open graded gravel capillary break with two inches of clean sand placed over the vapor barrier as recommended in Section VIII-C herein. ***Concrete slabs shall have weakened plane joints a maximum of fifteen feet on center, each way. All concrete shall be properly cured with an approved curing compound or wetted burlap for a minimum of 14 days.***

Soil Surveys Group, Inc. shall inspect and approve the foundation footing excavations and the subgrade beneath concrete floor slabs for suitable soil bearing and proper penetration into competent soil. We also recommend that Soil Surveys Group, Inc. review and approve the grading, drainage and foundation plans prior to building construction.

A. Concrete Sidewalks and Outside Flatwork:
We recommend that any new on-site concrete sidewalks and outside flatwork be at least five inches thick and be placed over a compacted subgrade. All concrete flatwork should be divided into as nearly square panels as possible. Frequent joints should be installed to provide articulation to the concrete panels. Landscaping and planters adjacent to concrete flatwork should be designed in such a manner that positive drainage away

from the new project buildings is achieved. It is assumed that the outside concrete flatwork will be subjected only to pedestrian traffic.

V. LOOSE AND EXPANSIVE SOIL MITIGATIONS:

To mitigate the effects of loose near surface soil conditions and slightly expansive soils at footing depths, the following measures are recommended:

1. Any existing loose soil within the proposed new building pads and extending a minimum of five feet in all directions outside of the proposed building foundations shall be recompacted **as necessary** to 90 percent relative compaction at the direction of Soil Surveys Group, Inc. prior to placing additional building pad fill or finishing the building pad subgrade. Soil Surveys Group, Inc. shall determine the depth of recompaction, if any, within the building perimeter after clearing and grubbing are completed. Subexcavation and recompaction should be extended under any proposed patios or other permanent flatwork.

2. Spread footings shall be constructed a minimum of 18 inches deep for both single story and two story portions of the proposed new building as measured from the lowest adjacent grade, and continuous non-retaining footings shall be reinforced with three #4 reinforcement bars, two placed near the bottom and one placed near the top of footing.

3. All new concrete floor slabs-on-grade shall be a minimum of five inches thick and shall be reinforced with a minimum of #3 steel reinforcement bars at 12 inches on center or #4 steel reinforcement bars at 24 inches on center, each way and shall be bent to extend a minimum of eight inches into the perimeter footing.

4. The foundation excavations shall be flooded with three to four inches of water at least 24 hours prior to pouring concrete, and the subgrade for concrete slabs and foundations should be brought to at least three percent over optimum moisture for a depth of at least eight inches prior to pouring concrete. No free water shall remain in the footing excavations during the concrete pour. To achieve the proper moisture conditioning in the subgrade beneath concrete slabs, water should be applied each evening for several days prior to placement of reinforcing steel and concrete.

5. Roof and site rain water should be directed away from the proposed building foundations. Rainfall runoff must not be allowed to collect or flow in a downslope direction against any building foundation.

6. Soil Surveys Group, Inc. shall be retained to inspect and test the recompaction of any loose native soil and new engineered fill within the building pad perimeter and shall inspect and approve foundation footing excavations for soil bearing conditions. Soil Surveys Group, Inc. shall also inspect and approve the subgrade below concrete floor and garage slabs prior to placement of reinforcing steel and shall inspect and approve the installation of all roof and yard drainage facilities.

VI. SURFACE AND SUBSURFACE DRAINAGE AND EROSION CONSIDERATIONS:

The near surface soil at the project site has the potential to erode, especially if protective vegetation is removed. Therefore all new cut and fill slopes, as well as disturbed soil areas, must be seeded with grass or

landscape plants for erosion control and to prevent sloughing soil from blocking drainage patterns at the project site. Such erosion control measures shall be taken during and at completion of grading and during building construction operations.

Concentrated storm water runoff from the project site should not be allowed to discharge uncontrolled onto sloping ground. Suitable energy dissipation systems shall be designed where rainfall runoff is concentrated, or the drainage water should be collected and piped to flat ground or discharged onto a rocked energy dissipater down slope of the building foundations. Rock energy dissipaters consisting of four inch to six inch diameter rock or rubble rip rap should be installed at collection pipe discharge points to reduce soil erosion. Rain gutter downspouts shall discharge onto concrete splash blocks, or shall discharge into collector pipes. The building sites, any new paved areas and ground adjacent to the buildings shall be graded so that rainfall runoff does not become trapped or flow against any building foundations.

The boring logs do not indicate the need for a subsurface drain system. However, the Geotechnical engineer may recommend a system of subsurface drains should wet subsurface soil conditions be encountered during site preparation or excavations for any new building foundations.

VII. RETAINING WALL AND POOL DESIGN CRITERIA:

The following design criteria are recommended for the project retaining walls:

Friction Angle	φ	*= 28.9 °*
Cohesion	*c*	*= 50 p.s.f.*
Soil Weight,	*w*	*= 127.7 p.c.f.*
Equivalent fluid pressure, active		*= 44 pounds per square foot per foot of depth for* ***Level Grade***
Equivalent fluid pressure, active		*= 64 p.c.f. with* ***2:1 slope behind wall***
Equivalent fluid pressure, at rest		*= 66 p.c.f., restrained condition*
Equivalent fluid pressure, passive		*= 367 p.c.f.*
Sliding friction	*f*	*= 0.40*
Allowable Footing Toe Pressure		*= 2,600 p.s.f. plus ⅓ additional for seismic force (if added)*

Retaining walls that are more than five feet high, or are part of or within ten feet of a building should include the seismic force of the soil against the retaining wall. The estimated seismically generated ground accelerations to be used for this area are:

PAGA = 0.719 g
RHGA =0.48 g = k_h
w =127.7 p.c.f.

The resultant seismic force is calculated by the formula: 3/8 w H^2 k_h per linear foot of retaining wall, or for this case **23.0 H^2, *where H is the height of the retaining wall. These forces, where needed, should be applied at a height of 0.6H above the base of the retaining wall and must be combined with the force produced by active soil pressure.***

These retaining wall design criteria are based on a fully drained condition. Therefore we recommend that a four-inch diameter perforated NDS or PVC pipe be installed behind or along the top of the footing, holes placed down, behind all walls that retain earth. The pipe shall be covered with a 12-inch wide envelope of ¾-inch drain rock or Class 2 Permeable Material (per Caltrans Standard Specifications Section 68-1.025) which shall extend to at least one foot above the top of pipe, and a filter fabric shall be installed over the top

of the drain rock. However, no gravel shall be placed below the pipe. The remainder of the trench can be backfilled with clean native sand. As an alternative to installing drain rock or permeable material, a composite filter material, eg. Miradrain, can be installed with a perforated pipe at the bottom of the material. Clean-out risers must be installed on the perforated pipe at the up-stream ends, every 100-feet, and at 90° angle points. The capped end of the cleanout riser shall be located at the ground surface outside of or behind the retaining walls.

VIII. RECOMMENDED SPECIFICATIONS:

A. GRADING:

The building pads, extending a minimum of five feet in each direction past new foundation footings shall be cleared and grubbed of all surface vegetation, demolition debris, and organic topsoil before recompacting the original ground, placing engineered fill or finishing the subgrade for the new building pads. On site surface or subsurface grass, roots, deleterious material, or brush (if any) within the new building pad areas shall be removed. Soil Surveys Group, Inc. should determine the exact depth of subexcavation necessary, if any, after pad grading is complete. Any subexcavated soil shall then be backfilled in eight inch loose lifts and recompacted to 90 percent relative compaction, prior to placing engineered fill or finishing subgrade of the new building pads. All loose mining debris in the barn location should be removed and recompacted.

Any new cut and fill slopes in the sandy soil areas shall be 2:1 (horizontal to vertical) or flatter unless retained. The native soil is suitable to be used as engineered fill provided any organics or debris are first removed from the soil to be used as fill. Any native soil used for fill, or any imported fill soil for the new building pads shall be compacted to at least 90 percent relative compaction, and any cut portions of the new building pad, if located within both cut and fill, shall be subexcavated a minimum of two feet, backfilled in eight inch loose lifts and recompacted to a minimum of 90 percent relative compaction. All fills placed on slope grades of 5:1 or greater shall be provided with a keyway excavated a minimum of two feet below grade, a minimum of 10 feet wide and at a 2% slope into the slope. The bottom of the keyway should be moisture conditioned, compacted (if necessary) and approved by Soil Surveys Group, Inc. prior to backfilling in eight inch loose lifts and compacting the backfill to 90 percent relative compaction. ***Grading, filling, compaction operations and foundation excavations shall be inspected and tested by Soil Surveys Group, Inc.***

B. COMPACTION:

Laboratory soils compaction test method shall be *A.S.T.M. D 1557-12.* Subgrade *in existing soil* beneath the new building pads shall be compacted to 90 percent relative compaction unless waived by the Geotechnical engineer. Subgrade soil below any new pavement shall also be compacted to 95 percent relative compaction, and aggregate base beneath new pavement shall be compacted to 95 percent relative compaction. Any imported sandy soil fill placed for the new building pads shall be compacted to a minimum of 95 percent relative compaction.

C. CONCRETE FLOOR SLABS-ON-GRADE:

Subgrade in recompacted soil under any new concrete floor slabs-on-grade shall be brought to at least 2% over optimum moisture prior to placing native or imported sandy soil fill, prior to placing the capillary break rock and moisture proof barrier or prior to pouring concrete. We recommend that a capillary break consisting of:

- a mat of clean, open graded rock, four inches thick, shall be placed over the finished soil subgrade

- a minimum 15 mil. water-proof membrane (such as Stego, Moistop or equal) shall be placed over the open graded rock
- two inches of clean, moistened sand shall be placed between the water-proof membrane and the bottom of the concrete floor slab. The moistened sand will help protect the membrane and will assist in equalizing the concrete curing rate to minimize shrinkage cracking.

Class 2 Aggregate Base or sand should not be used as the capillary break material. Capillary break material shall comply with and be installed according to the following:

1. MATERIAL:

   The mineral aggregate for use under the floor slabs shall consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination of the above. The aggregate shall be free of adobe, vegetable matter, loam, volcanic tuff and other deleterious materials. It shall be of such quality that the absorption of water in a saturated, surface dry condition does not exceed 3% of the oven dry weight of the sample.

2. GRADING:

   The mineral aggregate shall be of such size that the percentage composition by dry weight as determined by laboratory sieves (U.S. Sieves) will conform to the following grading:

Sieve Size	Percentage Passing Sieve
⅜" to ½"	100
No. 4	0-10
No. 200	0-2

3. PLACING:

   Subgrade, upon which aggregate base, gravel or crushed rock is to be placed, shall be prepared by removing grass and roots. Where loose topsoil is present, it shall be removed and cleaned of debris and recompacted to 90 percent of maximum density.

4. THICKNESS AND STRENGTH:

   Concrete slabs should be at least five inches thick. Concrete shall be five sack minimum (5.5 sack if pumped) and shall achieve a 28 day compressive strength of at least 2500 p.s.i., or as specified by the project engineer.

5. REINFORCEMENT:

   Concrete slabs-on-grade shall be reinforced with a minimum of #3 steel reinforcement bars placed 12 inches on center, each way or #4 reinforcement bars placed 24 inches on center, each way and shall be bent to extend a minimum of eight inches into the perimeter footings.

D. UTILITY TRENCH BACKFILL:

All new on-site utility trenches shall be backfilled with a clean sand having a sand equivalent of 30 or higher. A two feet thick plug of compacted, **clayey soil backfill** or lean concrete shall be required around the pipe or conduit at places where utility trenches intersect the building perimeter. All trench backfill of imported clean sand or clean native sand shall be compacted to 95 percent relative

compaction at all locations. Clean native sand shall be approved by Soil Surveys Group, Inc. prior to using for trench backfill.

E. PAVEMENT DESIGN CRITERIA:

A representative composite sample of the native subgrade and an R-value test was run. The R-Value was 70. Based on the Traffic Indices given in the table below, asphalt pavement should consist of the relevant thickness of Hot Mix Asphalt (HMA) over the relevant thickness of Class 2 Aggregate Base (AB), compacted to 95 percent relative compaction. The underlying soil subgrade shall be scarified 12 inches, moisture conditioned recompacted to 95 percent relative compaction. Soil Surveys Group, Inc. shall test and approve the finished soil subgrade and finished subgrade of Class 2 Aggregate Base.

Traffic Index(T.I.)	Thickness of H.M.A.	Thickness of A.B.
4	2.5"	4.0"
5	2.5"	4.5"
6	3.0"	5.0"

IX. GEOLOGIC AND SEISMIC CONSIDERATIONS:

San Benito County is in a seismically active area of the state of California. The following table provides a list of nearby faults that could produce an earthquake that could impact the project site.

Fault Name	Approximate Distance to Site	Orientation from Site	Data Source
Zayante-Vergeles	2.5 km	Southwest	Uniform Building Code, 1997
San Andreas Creeping Section (Pajaro)	4.0 km	Northwest	Uniform Building Code, 1997
Cavaleres	8.0 km	East	Uniform Building Code, 1997
Sargent	17.0 km	North	Uniform Building Code, 1997
Quien Sabe	17.0 km	Northeast	Uniform Building Code, 1997
Rinconada	28.5 km	Southwest	Uniform Building Code, 1997

The new residence, barn, storage buildings, and any future building additions must be designed in strict compliance with the 2016 California Building Code to help withstand such seismically generated ground accelerations for a reasonably expected duration without suffering major damage.

The following are the project site coordinates and the seismic design criteria/coefficients per the requirements of the 2016 California Building Code (CBC):

Site Class	Latitude	Longitude	S_S	S_1	F_a	F_v
D	36.7982°	-121.4777°	2.532	1.211	1.00	1.50

Frame and semi-rigid structures with proper strengthening connections and hold-down fasteners (where needed) are recommended for the new storage facility, future barn and any future building additions. With proper design parameters, seismic damage to the building can be mitigated for major earthquakes centered near the project area.

Surface rupture, liquefaction, lurch cracking, lateral spreading, and differential settlement are seismic hazards that must be considered at the project site. Surface rupture usually occurs along fault lines, and no known faults have been mapped through the project site. Therefore, the potential for surface rupture or lurch cracking is considered to be low.

Liquefaction and lateral spreading tend to occur in loose, fine saturated sands and in places where the liquefied soils can move toward a free face (e.g. a cliff or ravine). The deeper soils underlying the project site are typically very dense, silty, sandy soils and granitic material and no ground water was encountered in the borings to a maximum explored depth of 28.58 feet. Considering the deeper granitic material and the absence of shallow groundwater, the potential risk for occurrence of damaging liquefaction or lateral spreading is considered to be low during a strong seismic event.

Differential compaction and settlement occur generally in loose, granular or unconsolidated semi-cohesive soils during severe ground vibration. In our opinion, the risk for soil consolidation caused differential compaction and settlement during a major seismic event is considered to be low, provided all loose materials are subexcavated and recompacted.

Slope stability is a hazard that will need to be addressed within this property. The granodiorite bedrock material is typically found as a large mass with little to no fracturing and no bedding planes and is resistant to erosion. The existing vertical or near vertical granodiortic slopes along the driveway that show no signs of spalling or fracturing can remain as they are. However any area that shows signs of fracturing or spalling from the prior excavation work will need to have the loose material removed. Cut areas with a topsoil section greater than one to two feet in thickness will need to be cut back to a minimum slope of 2:1 (horizontal to vertical), as the topsoil is typically loose and has the potential to erode or slide. The sandy soils in the near vertical slope behind the residence should be cut back to a 2:1 slope or be retained due to the thick section of topsoil material observed.

X. UNFORESEEN OR UNUSUAL CONDITIONS:

If any unforseen or unsuitable soils conditions are found during grading or construction of the residence, barn, storage facilities, driveway and the water system, the Geotechnical engineer shall be notified immediately so that remedial action can be taken. Such unsuitable conditions could be:

1. Wet, soft or unsuitable pockets of sandy soil within the proposed building sites.
2. Soil with a high organic content at the finished subgrade of the building pads.
3. Any other unforeseen conditions that would require remedial action by the Geotechnical engineer, project engineer, architect or contractor.

XI. CONCLUSIONS AND RECOMMENDATIONS:

From our field observations, analysis of the test data, and knowledge of the general area soils, the following are concluded:

1. The project soil conditions are suitable for the proposed residence, barn, storage buildings, driveway and water system provided any loose near surface soil is recompacted prior to excavating for the new building foundations or finishing the subgrade of the building pads as recommended in Sections V and VIII herein.

2. Design criteria for a spread footing foundation system for the project buildings are provided in Sections IV and V. Retaining wall design criteria is provided in Section VII. Design criteria for concrete slabs-on-grade are provided in Sections IV, V and VIII herein.

3. Surface storm water runoff should be carefully controlled around the proposed storage facility and future barn to provide positive drainage away from building foundations as discussed in Section VI herein.

4. The Geotechnical engineer should review the building and site grading plans for compliance with the recommendations herein and may provide additional specific recommendations for surface or subsurface drainage. The Geotechnical engineer shall inspect and approve all new foundation footing excavations.

5. Grading and compaction specifications and specifications for new concrete floor slabs-on-grade are provided in Section VIII herein.

6. Seismic considerations are discussed, and geoseismic design coefficients are provided in Section IX herein per the 2016 CBC. The potential for damaging earthquake related liquefaction is considered to be low at the project site.

XII. LIMITATIONS:

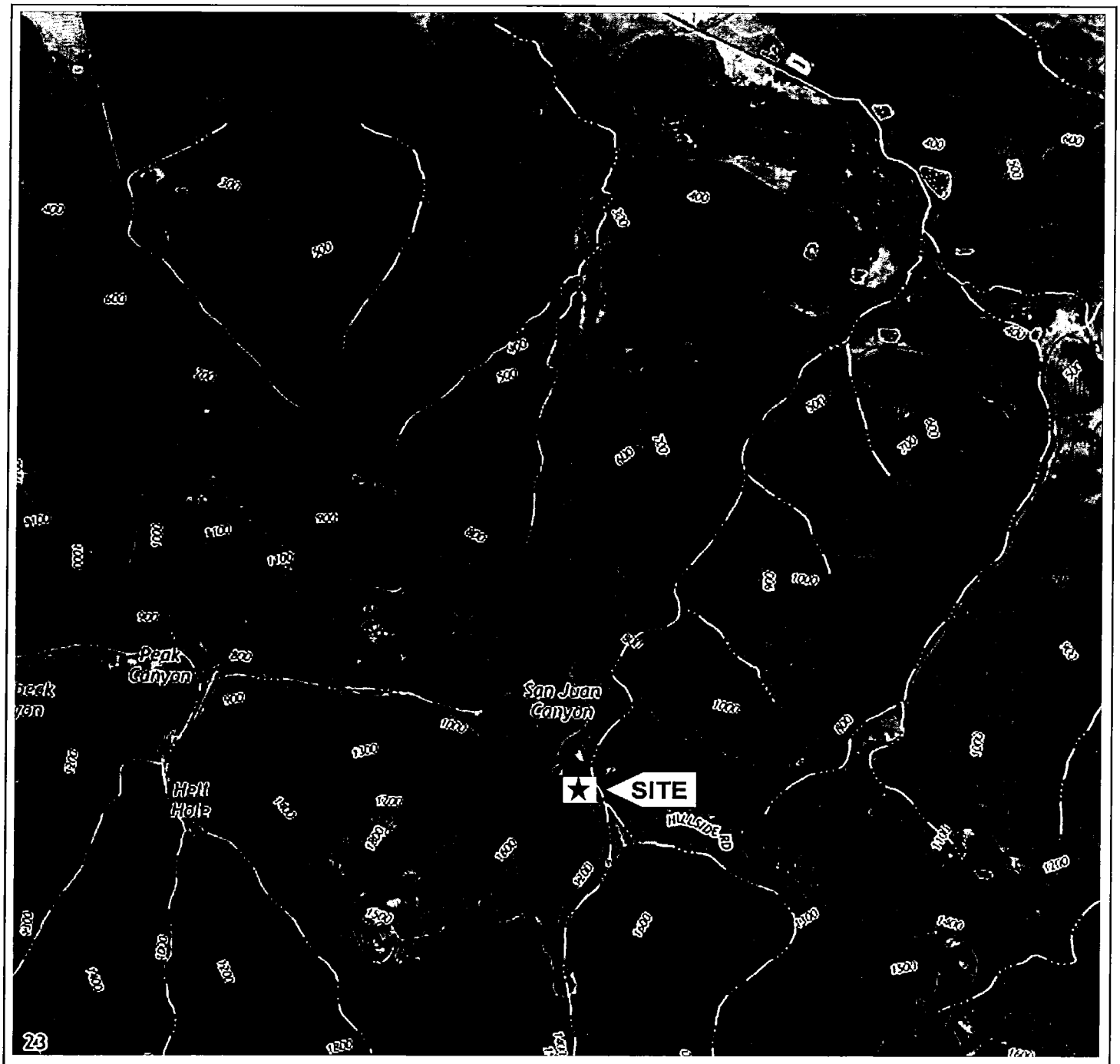
This report necessarily assumes that the subsurface conditions are as found in the borings. It should be recognized that the soil conditions described in this report are based on five borings and our knowledge of the general area soils. It must be understood that subsurface soil conditions can vary between borings and from site to site. If any unusual soil conditions are found during grading, installation of underground utilities or building construction, the Geotechnical engineer should be notified immediately so that remedial action can be taken (see Section X).

This report is issued with the understanding that it is the responsibility of the Owner or his representative to ensure that the applicable provisions of the recommendations contained herein are incorporated into the plans and specifications and that the necessary steps are taken to see that contractors and subcontractors carry out such provisions in the field. The use of this report, its contents or any part thereof, by a party or its agents, other than Mr. Charles Wilson Jr., his engineer, architect, contractor or designated agents, is hereby disallowed unless specific permission is given to do so by Soil Surveys Group, Inc. This investigation and report were prepared with the understanding that a residence, barn, storage facility, driveway and water system will be constructed at the project site. The boring locations are shown on the Figure II and II-A maps enclosed herein. The use of this report, boring logs and laboratory test data shall be restricted to the original use for which they were prepared and publication by any method, in whole or in part, is prohibited without the written consent of Soil Surveys Group, Inc. Title to the designs remains with Soil Surveys Group, Inc.

without prejudice. Visual contact with this report and drawings constitutes prima facie evidence of the acceptance of these restrictions.

Soil Surveys Group, Inc. will not take responsibility for or assume any liability for the recommendations made in this report unless Soil Surveys Group, Inc. performs the field inspections and testing mentioned herein.

The findings and recommendations of this report are considered valid at the present date. However, changes in the property conditions can occur with the passage of time on this or adjacent properties, whether due to natural processes or the works of man. Therefore, the findings of this report shall be considered valid for a period of not more than three years without being reviewed and updated by Soil Surveys Group, Inc.



N

BASE: U.S. Geological Survey, Hollister 7.5 Quadrangle

Near San Juan Bautista, CA

FIGURE I: VICINITY MAP

SCALE
1" = 2000'

By: Soil Surveys Group, Inc.
103 Church Street
Salinas, CA 93901
831-757-2172

Job #6563

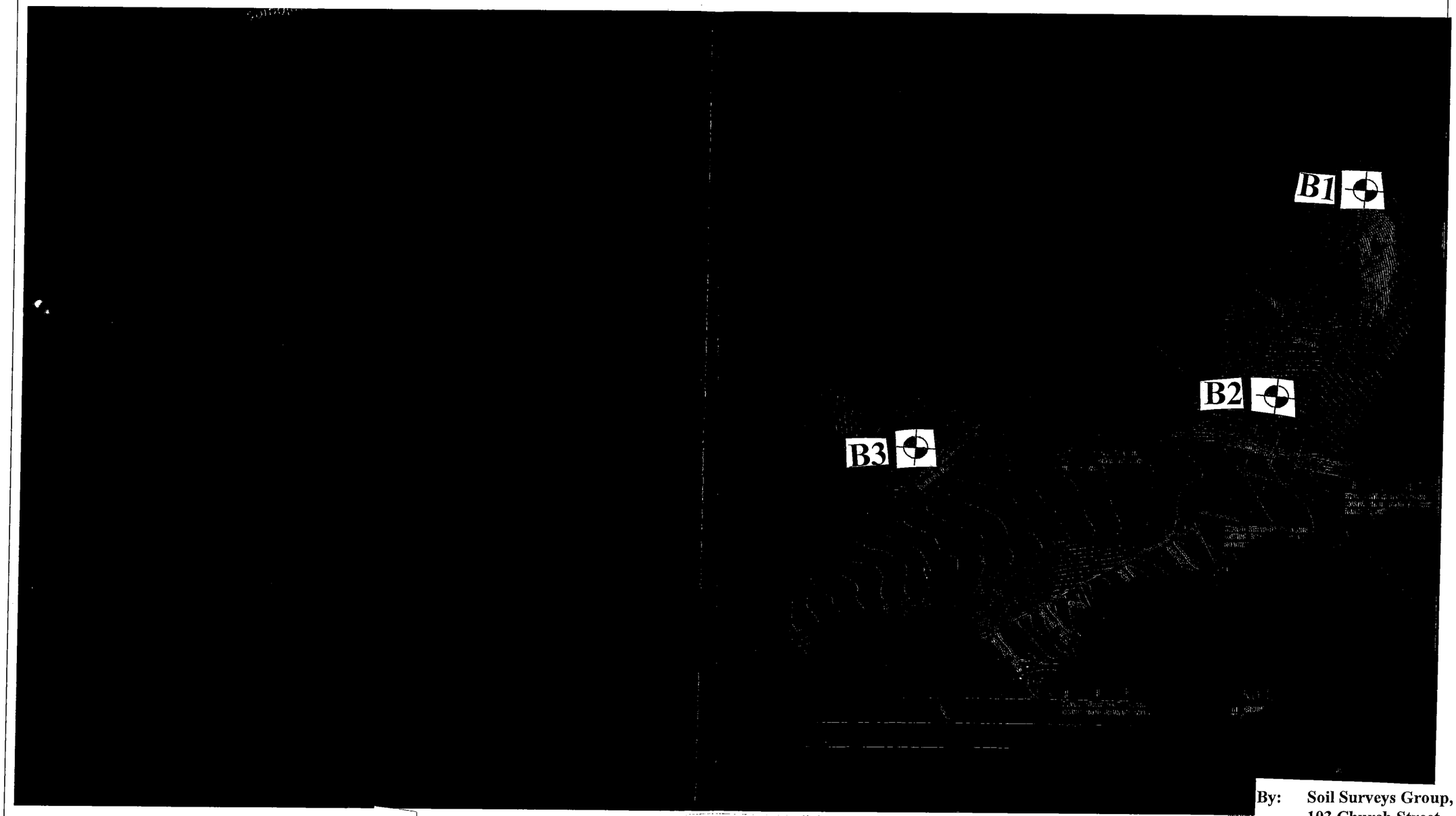


FIGURE II

Boring Locations (approx.)

N

BASE: **San Juan Canyon Road, in San Juan Bautista, California**
APN: 023-010-061-0
Site Plan from H.D. Peters, Inc., February 2017- Job #6563

By: **Soil Surveys Group, Inc.**
103 Church Street
Salinas, CA 93901
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H. D. PETERS
ENGINEERING – SURVEYING – LAND PLANNING

Erosion & Sediment Control Plan
prepared for
Charles Wilson

San Juan Canyon Road, San Juan Bautista, Ca
ASSESSOR'S PARCEL NUMBER 023-010-061-0

SCALE 1"=15' DRAWN JOB NO. 4175
DATE FEBRUARY, 2017 FILE NO. 4175 SAN JUAN BAUTISTA

SHEET 2 OF 3

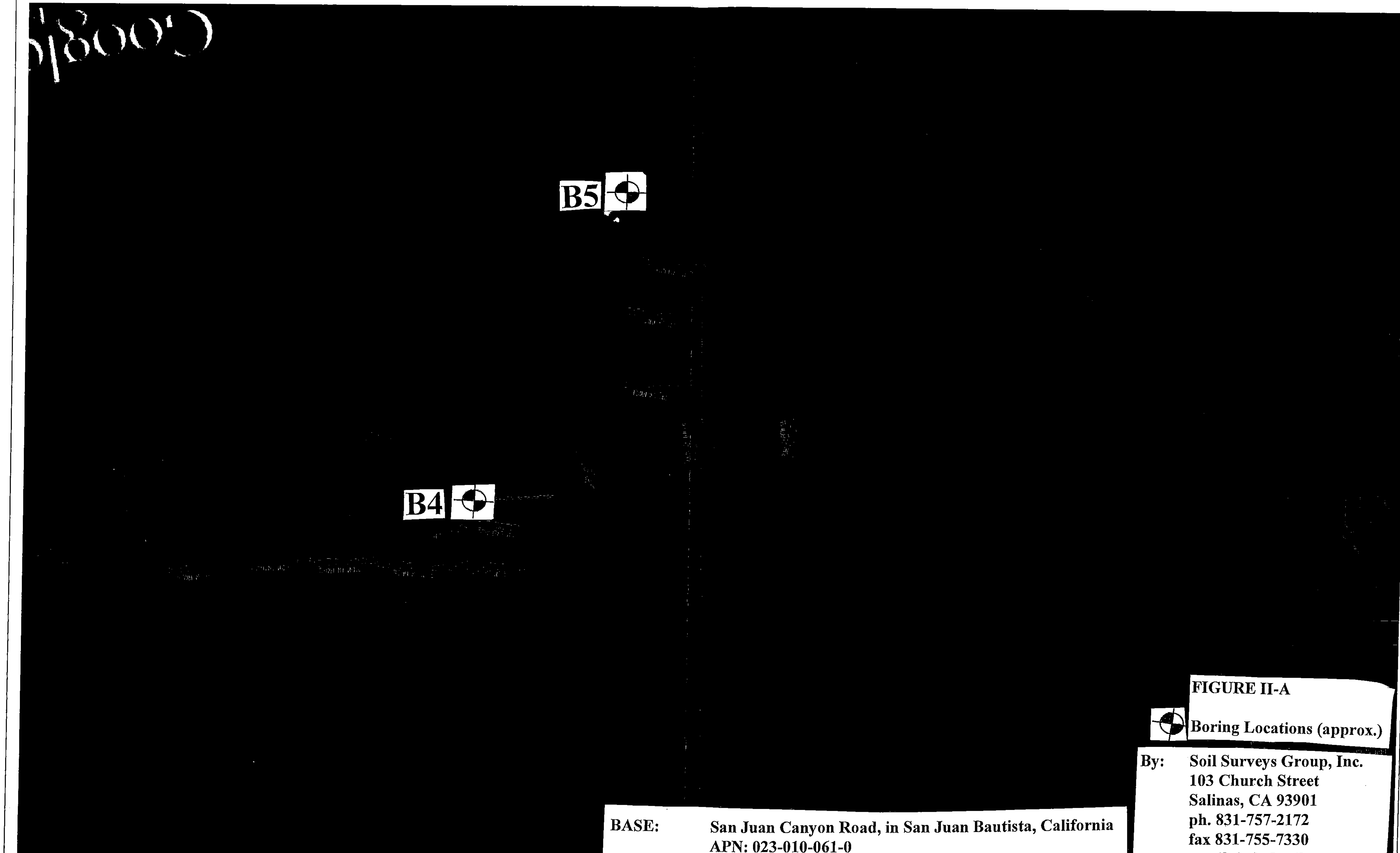

FIGURE II-A

Boring Locations (approx.)

BASE: San Juan Canyon Road, in San Juan Bautista, California
APN: 023-010-061-0
Site Plan from H.D. Peters, Inc., February 2017- Job #6563

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N ↓

H. D. P E T E R S ENGINEERING — SURVEYING — LAND PLANNING	Erosion & Sediment Control Plan prepared for Charles Wilson	San Juan Canyon Road, San Juan Bautista, Ca ASSESSOR'S PARCEL NUMBER 023-010-061-0	SCALE NTS DRAWN JOB NO. 4175 DATE FEBRUARY, 2017 FILE NO. 4175 SAN JUAN BAUTISTA	SHEET 2 OF 3

APPENDIX A
BORING LOGS

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE)	GRAVELS (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE)	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS (MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE)	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE)	SILTS AND CLAYS (LIQUID LIMIT IS LESS THAN 50%)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (LIQUID LIMIT IS GREATER THAN 50%)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

GRAIN SIZES

U.S STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FT*
VERY LOOSE	0 - 4
LOOSE	4-10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH**	BLOWS/FT*
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

*Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch I.D) split spoon (ASTM D-1586)

**Unconfined compressive strength in tons/ft^2 as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation

FIGURE NO. KEY TO LOGS

EXPLORATION DRILL LOG

HOLE NO. B-1

PROJECT Wilson, San Juan Canyon Road, San Juan Bautista Job #6563 DATE 2.20.18 LOGGED BY JG

DRILL RIG Cenozoic Crawler HOLE DIA. 5" SAMPLER Terzaghi Split Spoon (SPT) + 2.5" CAL

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. 1033'

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light yellowish-tan, silty, fine to coarse grained	SM								
SAND with organics; slightly moist		1							
Light tan, whitish-tan, dark brown, slightly silty, fine	SM/SP		SPT						
to coarse grained decomposed granitic SAND and		2							
scattered gravels; moist, medium dense			XXX	17	96.7	4.5			---
		3							
Whitish-yellow, light tan, dark brown, dark grey,	SP		2.5" CAL						
fine to coarse grained decomposed granitic SAND		4	XXX	35(21)	121.8	6.3			3.75
and gravels; moist, medium dense to dense			XXX	59(35)	125.3	6.4	Non	Plastic	>4.5
White, light grey, light tan, fine to coarse grained	SP	5	SPT						
decomposed granitic SAND with scattered									
decomposed granitic gravels; moist, very dense		6	XXX	69	112.7	3.9			---
		7							
		8							
Whitish-tan, light tan, reddish-yellowish tan, fine	SP	9	SPT						
to coarse grained decomposed granitic SAND with			XXX	74/10"	112.8	7.6			---
scattered decomposed granitic gravels; moist, very		10							
dense									
		11							
		12							
		13							
Whitish-tan, light tan, decomposed granitic SAND	SP/RK	14	SPT	50/0"	Bulk	5.7			---
and gravels; slightly moist, very dense									
		15							
		16							
		17							
		18							
Light olive-tan, light yellowish-reddish-tan, white,									
light grey, slightly clayey, silty, fine to coarse	SM/SC	19	SPT	50/5.5"	94.9	7.1			---
grained decomposed granitic SAND and gravels;									
moist, very dense		20							

DEPTH 28.58'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-1 CONTINUED

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light olive-tan, light yellowish-reddish-tan, white,	SM/SC								
light grey, slightly clayey, silty, fine to coarse		21							
grained decomposed granitic SAND and gravels;									
moist, very dense		22							
		23							
Light whitish-tan, light yellow-tan, decomposed	SP/RK		SPT	50/0"	No	Recovery			
granitic SAND and gravels; slightly moist, very		24							
dense									
		25							
		26							
		27							
		28							
Light whitish-tan, light yellow-tan, decomposed									
granitic SAND and gravels; slightly moist, very	SP/RK	29	SPT	50/1"	106.2	4.3			---
dense. Bottom of the boring at 28.58'									
		30							
		31							
		32							
		33							
		34							
		35							
		36							
		37							
		38							
		39							
		40							
		41							
		42							

DEPTH 28.58' Job #6563 SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-2

PROJECT Wilson, San Juan Canyon Road, San Juan Bautista Job #6563 DATE 2.20.18 LOGGED BY JG

DRILL RIG Cenozoic Crawler HOLE DIA. 5" SAMPLER Terzaghi Split Spoon (SPT) + 2.5" CAL

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. 981'

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light reddish-brown, silty, fine to coarse grained	SM								
SAND with scattered fine to coarse decomposed		1							
granitic gravels; moist	SM		SPT						
Dark olive-tan, slightly clayey, silty, fine to coarse		2							
grained SAND with scattered fine gravels; loose to			XXX	10	91.0	9.0			---
medium dense		3							
Reddish-brown, clayey, silty, fine to coarse grained	SM		SPT						
SAND with scattered gravels; moist, loose		4							
			XXX	7	93.2	13.5			---
		5							
Reddish-yellowish-brown, slightly clayey, silty, fine	SM/SC		2.5" CAL						
to coarse grained SAND with scattered fine gravels;		6	XXX	7(4)	114.7	11.3	Shear	Test	1.0
moist, loose			XXX	8(5)	105.0	10.3	25	19	1.5
	SM/SC	7	SPT						
Same									
		8	XXX	8	93.1	10.5			---
Reddish-yellowish-brown, clayey, silty, fine to	SM/SC	9	SPT						
coarse grained micaceous SAND with scattered fine									
gravels; moist, loose		10	XXX	8	89.6	8.4			0.25
		11							
		12							
		13							
Reddish-brown, silty, fine to coarse grained SAND	SM	14	SPT						
with scattered fine decomposed granitic gravels;									
moist, loose		15	XXX	9	93.2	7.9	25	19	---
		16							
		17							
		18							
Light tan, reddish-yellowish-tan, white, dark grey,	SM	19	SPT						
silty, fine to coarse grained SAND with decomposed									
granitic gravels; moist, very dense		20	XXX	65	99.8	5.3			---

DEPTH 23.67'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-2 CONTINUED

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light tan, reddish-yellowish-tan, white, dark grey,	SM								
silty, fine to coarse grained SAND with decomposed		21							
granitic gravels; moist, very dense									
		22							
Whitish-tan, yellowish-tan, light tan, fine to coarse		23							
grained decomposed granitic SAND and gravels/									
decomposed granite rock; slightly moist, very dense	SM/RK	24	SPT	50/1"	120.6	8.9			---
Bottom of the boring at 23.58'									
		25							
		26							
		27							
		28							
		29							
		30							
		31							
		32							
		33							
		34							
		35							
		36							
		37							
		38							
		39							
		40							
		41							
		42							

DEPTH 23.58' Job #6563 SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-3

PROJECT Wilson, San Juan Canyon Road, San Juan Bautista Job #6563 DATE 2.20.18 LOGGED BY JG

DRILL RIG Cenozoic Crawler HOLE DIA. 5" SAMPLER Terzaghi Split Spoon (SPT)

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. 981'

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light tan, silty, fine to coarse grained SAND with	SM								
fine to coarse decomposed granitic gravels; moist		1							
Light reddish-tan, silty, fine to coarse grained	SM/SC		SPT						
SAND with subangular decomposed granitic		2							
gravels; moist, loose			XXX	9	92.0	10.4			1.0
		3							
Reddish-yellowish-tan, slightly clayey, silty, fine to	SM/SC		SPT						
coarse grained SAND with subangular decomposed		4							
granitic gravels; moist, loose			XXX	9	82.7	9.4			0.25
		5							
Reddish-yellowish-tan, slightly clayey, silty, fine to	SM/SC		SPT						
coarse grained SAND with subangular decomposed		6							
granitic gravels; moist, medium dense			XXX	15	86.0	7.1			---
		7							
		8							
Reddish-yellowish-tan, slightly clayey, silty, fine to	SM/SC	9	SPT						
coarse grained SAND with subangular decomposed									
granitic gravels; moist, loose		10	XXX	7	94.0	11.2	37	26	---
Dark brown, silty, fine to coarse grained micaceous	SM								
SAND with organics; moist, loose		11							
		12							
		13							
Light reddish-yellowish-tan, silty, fine to coarse	SM	14	SPT						
grained SAND; slightly moist, loose to medium									
dense		15	XXX	10	105.7	2.7			---
		16							
		17							
		18							
Light tan, clayey, silty, fine to coarse grained SAND	SM/SC	19	SPT						
with scattered gravels; moist, dense									
Bottom of the boring at 20'	SM/SC	20	XXX	36	115.0	6.3			1.25

DEPTH 20'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-4

PROJECT Wilson Ranch, San Juan Canyon Road, San Juan Bautista Job #6563 DATE 2.20.18 LOGGED BY JG

DRILL RIG Cenozoic Crawler HOLE DIA. 5" SAMPLER Terzaghi Split Spoon (SPT) + 2.5" CAL

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. ---

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light yellowish-tan, clayey, silty, fine to coarse	SM								
SAND with gravels; moist		1							
Dark brown, light yellowish-tan, silty, fine to coarse	SM		2.5" CAL						
grained SAND with scattered subangular gravels;		2	XXX	18(11)	111.4	12.4			4.5
moist, medium dense			XXX	22(13)	111.7	9.5			>4.5
Light yellowish-brown, dark brown, silty,	SM	3	SPT						
fine to coarse grained SAND with scattered									
subangular gravels; moist, loose		4	XXX	8	83.3	8.3	30	24	---
		5							
Light reddish-yellowish-tan, white, dark grey,	SM/SC		SPT						
slightly clayey, silty, fine to coarse grained		6							
decomposed granitic SAND and gravels with thin			XXX	32	99.6	8.3	32	23	1.0
veins of dark grey clay; moist, dense		7							
		8							
		9							
		10							
White, light reddish-yellowish-tan, light grey,	SM		SPT						
slightly silty, fine to coarse grained decomposed		11							
granitic SAND and gravels; slightly moist, very			XXX	55	103.2	7.9			1.25
dense		12							
		13							
		14							
Light tan, white, silty, fine to coarse grained		15							
decomposed granitic SAND and gravels; slightly	SM		SPT	50/4.5"	99.1	5.3			---
moist, very dense. Bottom of the boring at 15.375'		16							
		17							
		18							
		19							
		20							

DEPTH 15.375'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-5

PROJECT Wilson, San Juan Canyon Road, San Juan Bautista Job #6563 DATE 2.20.18 LOGGED BY JG

DRILL RIG Cenozoic Crawler HOLE DIA. 5" SAMPLER Terzaghi Split Spoon (SPT)

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. 981'

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
		1							
Light reddish-yellowish-tan, clayey, silty, fine to	SM/SC		SPT						
coarse grained SAND with scattered fine gravels		2							
and organics; moist, medium dense			XXX	19	109.7	13.5	32	18	2.75
		3							
Light yellowish-reddish-tan, clayey, silty, fine to	SM/SC		SPT						
coarse grained SAND with decomposed granitic		4							
gravels; moist, loose to medium dense			XXX	10	93.6	10.1			1.25
		5							
Light yellowish-reddish-tan, clayey, silty, fine to	SM/SC		SPT						
coarse grained SAND with decomposed granitic		6							
gravels; moist, medium dense			XXX	12	85.6	9.2			0.5
		7							
		8							
		9							
		10							
Light yellowish-reddish-tan, clayey, silty, fine to	SM/SC		SPT						
coarse grained SAND with decomposed granitic		11							
gravels; moist, medium dense			XXX	14	91.0	8.3	25	17	0.5
		12							
		13							
		14							
		15							
Light yellowish-reddish-tan, silty, fine to coarse	SM		SPT						
grained SAND; slightly moist, medium dense		16							
			XXX	27	94.8	4.6			---
		17							
		18							
Harder drilling	SP/GP								
White, light tan, dark grey, fine to coarse grained		19							
decomposed granitic SAND and gravels; slightly									
moist, very dense		20							

DEPTH 25.25'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

HOLE NO. B-5 CONTINUED

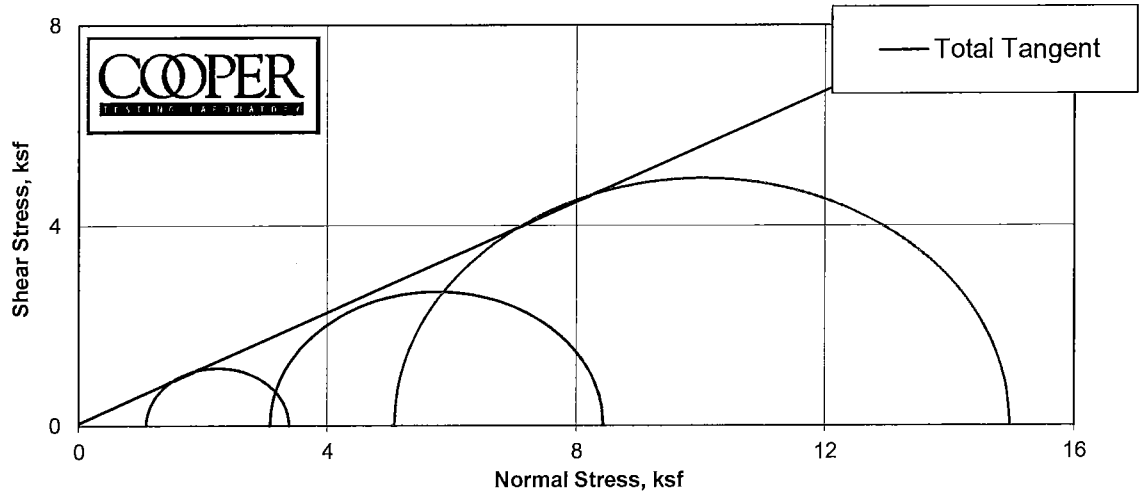
DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
White, light tan, dark grey, fine to coarse grained	SP/GP		SPT	50/5.5"	87.9	3.0	25	20	---
decomposed granitic SAND and gravels; slightly		21							
moist, very dense									
		22							
		23							
		24							
White, light tan, dark grey, fine to coarse grained		25							
decomposed granitic SAND and gravels; slightly	SP/GP		SPT	50/3"	89.8	4.2			---
moist, very dense. Bottom of the boring at 25.25'		26							
		27							
		28							
		29							
		30							
		31							
		32							
		33							
		34							
		35							
		36							
		37							
		38							
		39							
		40							
		41							
		42							

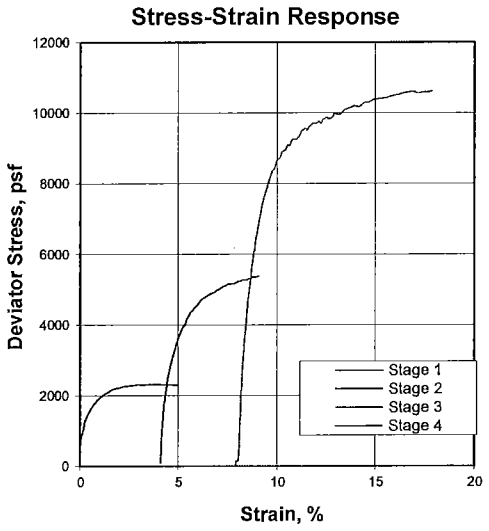
DEPTH 25.25' Job #6563 SOIL SURVEYS GROUP, INC.

APPENDIX B

DIRECT SHEAR TEST

Staged Consolidated Undrained Triaxial Compression
ASTM D4767m





CTL Number:	699-104
Client Name:	Soil Surveys Inc
Project Name:	San Juan Canyon Road
Project Number:	6563
Date:	3/21/2018
By:	MD/DC
Total C	0.050 ksf
Total phi	28.9 degrees
Eff. C	N/A ksf
Eff. Phi	N/A degrees ©

Stage	1	2	3	4
Boring	B-2			
Sample				
Depth	5-6.5			
Visual Description	Very Dark Brown Clayey SAND			
MC (%)	11.3			
Dry Density (pcf)	114.7			
Saturation (%)	67.6			
Void Ratio	0.442			
Diameter (in)	2.37			
Height (in)	5.01			
	Final			
MC (%)	15.2	13.8	13.3	
Dry Density (pcf)	117.8	121.1	122.3	
Saturation (%)	100.0	100.0	100.0	
Void Ratio	0.404	0.366	0.352	
Diameter (in)	2.34	2.36	2.39	
Height (in)	4.99	4.80	4.61	
Cell Pressure (psi)	96.8	110.6	124.9	
Back Pressure (psi)	89.2	89.2	89.6	
	Total Stresses At:			
Strain (%)	5.0	5.0	5.0	
Deviator (ksf)	2.299	5.354	9.882	
Excess PP (psi)				
Sigma 1 (ksf)	3.395	8.438	14.959	
Sigma 3 (ksf)	1.096	3.084	5.077	
P (ksf)	2.245	5.761	10.018	
Q (ksf)	1.149	2.677	4.941	
Stress Ratio	3.098	2.736	2.946	
Rate (in/min)	0.0251	0.0247	0.0248	

APPENDIX C

R-VALUE TEST

R-value Test Report (Caltrans 301)

Job No.:	699-104	**Date:**	03/09/18	**Initial Moisture,**	11.1
Client:	Soil Surveys Inc	**Tested**	PJ	**R-value**	70
Project:	San Juan Canyon Road - 6563	**Reduced**	RU		
Sample	R-1 @ 1-1.5'	**Checked**	DC	**Expansion Pressure**	20 psf
Soil Type:	Olive Brown Silty SAND w/ Gravel (slightly plastic)				

Specimen Number	A	B	C	D
Exudation Pressure, psi	104	385	800	
Prepaired Weight, grams	1200	1200	1200	
Final Water Added, grams/cc	27	0	-11	
Weight of Soil & Mold, grams	3180	3166	3141	
Weight of Mold, grams	2089	2106	2097	
Height After Compaction, in.	2.44	2.42	2.36	
Moisture Content, %	13.6	11.1	10.1	
Dry Density, pcf	119.3	119.5	121.8	
Expansion Pressure, psf	0	34	65	
Stabilometer @ 1000				
Stabilometer @ 2000	122	26	22	
Turns Displacement	4.15	3.60	3.40	
R-value	15	77	81	

Remarks: