



CEQA Referral Initial Study And Notice of Intent to Adopt a Mitigated Negative Declaration

Date: April 1, 2021

To: Distribution List (See Attachment A)

From: Kristin Doud, Principal Planner, Planning and Community Development

Subject: REZONE AND WILLIAMSON ACT CANCELLATION APPLICATION NO.
PLN2019-0061 – BRONCO WINE COMPANY

Comment Period: April 1, 2021 – May 4, 2021

Respond By: May 4, 2021

Public Hearing Date: May 20, 2021

You may have previously received an Early Consultation Notice regarding this project, and your comments, if provided, were incorporated into the Initial Study. Based on all comments received, Stanislaus County anticipates adopting a Mitigated Negative Declaration for this project. This referral provides notice of a 30-day comment period during which Responsible and Trustee Agencies and other interested parties may provide comments to this Department regarding our proposal to adopt the Mitigated Negative Declaration.

All applicable project documents are available for review at: Stanislaus County Department of Planning and Community Development, 1010 10th Street, Suite 3400, Modesto, CA 95354. Please provide any additional comments to the above address or call us at (209) 525-6330 if you have any questions. Thank you.

Applicant: Bronco Wine Company

Project Location: The project site is located at 800, 1000, and 1130 E. Keyes Road and 6342 Bystrum Road, east of Crows Landing Road, west of State Highway 99, south of the City of Ceres.

APNs: 041-046-022, 041-046-012, and 041-046-013

Williamson Act Contracts: 1974-1790; 1972-0838

General Plan: Agriculture

Current Zoning: P-D (336) (Planned Development) and A-2-40 (General Agriculture)

Project Description: Request to rezone three parcels, consisting of 157.98 acres, from Planned Development (P-D) (336) and A-2 (General Agriculture) to a new P-D to allow for an expansion of the Bronco Winery facilities wine making operations, including the construction of up to 190 wine storage tanks and seven shallow checks, and development of a new driveway, on two parcels 38.58 acres in size located northeast of the existing facility. A Williamson Act Cancellation of Contract Nos. 1972-0838 and 1974-1790 is required for the rezone of the 38.58 acres from A-2 to P-D. The portion of Bystrum Road along the west side of the existing facility is proposed to be abandoned and developed with a second rail spur to serve the facility.

STRIVING TOGETHER TO BE THE BEST!



Full document with attachments available for viewing at:
<http://www.stancounty.com/planning/pl/act-projects.shtm>



**REZONE AND WILLIAMSON ACT CANCELLATION APPLICATION NO. PLN2019-0061 –
BRONCO WINE COMPANY**

Attachment A - Distribution List

X	CA DEPT OF CONSERVATION Land Resources		STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
X	CA DEPT OF TRANSPORTATION DIST 10	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER: ENV HEALTH & GROUNDWATER RESOURCES
	CA STATE LANDS COMMISSION	X	STAN CO ERC
	CEMETERY DISTRICT	X	STAN CO FARM BUREAU
	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF:		STAN CO PARKS & RECREATION
	COMMUNITY SERVICES/SANITARY DIST	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
	COUNTY OF:	X	STAN CO SHERIFF
X	FIRE PROTECTION DIST: WESTPORT & KEYES FIRE	X	STAN CO SUPERVISOR DIST 2: CHIESA
	HOSPITAL DIST:	X	STAN COUNTY COUNSEL
X	IRRIGATION DIST: TURLOCK		StanCOG
X	MOSQUITO DIST: TURLOCK	X	STANISLAUS FIRE PREVENTION BUREAU
X	MOUNTAIN VALLEY EMERGENCY MEDICAL SERVICES	X	STANISLAUS LAFCO
	MUNICIPAL ADVISORY COUNCIL:	X	SURROUNDING LAND OWNERS
X	PACIFIC GAS & ELECTRIC	X	TELEPHONE COMPANY: AT&T
	POSTMASTER:		TRIBAL CONTACTS (CA Government Code §65352.3)
X	RAILROAD: UNION PACIFIC		TUOLUMNE RIVER TRUST
X	SAN JOAQUIN VALLEY APCD		US ARMY CORPS OF ENGINEERS
X	SCHOOL DIST 1: CERES UNIFIED	X	US FISH & WILDLIFE
	SCHOOL DIST 2:		US MILITARY (SB 1462) (4 agencies)
	STAN ALLIANCE		USDA NRCS
X	STAN CO AG COMMISSIONER	X	STATE OF CA SWRCB DIVISION OF DRINKING WATER DIST. 10



STANISLAUS COUNTY CEQA REFERRAL RESPONSE FORM

TO: Stanislaus County Planning & Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: _____

SUBJECT: REZONE AND WILLIAMSON ACT CANCELLATION APPLICATION NO.
PLN2019-0061 – BRONCO WINE COMPANY

Based on this agency's particular field(s) of expertise, it is our position the above described project:

- _____ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
_____ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

- 1.
- 2.
- 3.
- 4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

- 1.
- 2.
- 3.
- 4.

In addition, our agency has the following comments (attach additional sheets if necessary).

Response prepared by:

Name	Title	Date
------	-------	------



DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10TH Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759

CEQA INITIAL STUDY

Adapted from CEQA Guidelines APPENDIX G Environmental Checklist Form, Final Text, January 1, 2020

1. **Project title:** Rezone and Williamson Act Cancellation Application No. PLN2019-0061 – Bronco Wine Company
SCH No. 2019080167
2. **Lead agency name and address:** Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354
3. **Contact person and phone number:** Kristin Doud, Principal Planner
(209) 525-6330
4. **Project location:** 6342 Bystrum Road, 800, 1000, and 1130 E Keyes Road (APNs: 041-046-022, 041-046-012, and 041-046-013).
5. **Project sponsor's name and address:** Associated Engineering Group, Jim Freitas
6. **General Plan designation:** Agriculture
7. **Zoning:** P-D (336) (Planned Development) and A-2-40 (General Agriculture)
8. **Description of project:**

Request to rezone three parcels, consisting of 157.98 acres, from Planned Development (P-D) (336) and A-2 (General Agriculture) to a new P-D to allow for an expansion of the Bronco Winery facilities wine making operations, including the construction of up to 190 wine storage tanks and seven shallow checks, and development of a new driveway, on two parcels 38.58 acres in size located northeast of the existing facility. A Williamson Act Cancellation of Contract Nos. 1972-0838 and 1974-1790 is required for the rezone of the 38.58 acres from A-2 to P-D. The portion of Bystrum Road along the west side of the existing facility is proposed to be abandoned and developed with a second rail spur to serve the facility.

The project site is located at 800, 1000, and 1130 E. Keyes Road and 6342 Bystrum Road, east of Crows Landing Road, west of State Highway 99, and south of Ceres. The existing Bronco facility is improved with shipping warehouses, barrel rooms, a railroad spur, drainage basin, offices and administration buildings, storage and maintenance buildings, truck docks, truck parking, visitor and employee parking, wine storage tanks, shallow checks, and a vineyard. The Union Pacific Railroad abuts the western property line of the project site.

In 2016, the Board of Supervisors approved a rezone of the existing facility to allow for expanded development north of the original facility. The northern parcel (previously APN: 041-046-019) and the existing winery facility to the south (previously APN: 041-046-020) were merged into one parcel, after approval of the 2016 rezone. The existing facility is now 119+ acres in size (now APN: 041-046-022). The 2016 rezone included expansion of the existing facility with 14 buildings, totaling 1,462,186 square feet to be developed in phases. Phase 1 of the 2016 rezone included construction of a 120,000 square-foot warehouse to be utilized for the storage of bottled wine stock, construction of two rail spurs to be utilized for deliveries, a fleet of 53-foot-long trucks and tanker trucks, and fencing around the perimeter of the new warehouse. All Phase 1 development, with the exception of one of the rail spurs, has been completed. The second railroad spur approved with Phase 1 is now proposed to be relocated after the abandonment of Bystrum Road in the abandoned right-of-way area. The Phase 2 development of the 2016 rezone included:

STRIVING TOGETHER TO BE THE BEST!

- Three 120,000 square-foot warehouses, two with 10 additional truck docks each
- Three 44,483 square-foot warehouses
- A 13,000 square-foot office
- A 38,000 square-foot office
- A 10,300 square-foot employee center
- A 2,264 square-foot pavilion
- A 20,000 square-foot employee center (lockers and restrooms)
- A 30,000 square-foot administration building
- A 16,000 square-foot filter storage building.

These uses were to be constructed according to market demand and were subject to obtaining additional land use entitlement permits. No change to employees, buildings, hours of operation, truck-trips from what was approved in 2016 Rezone are proposed. The environmental review prepared for that development found that the project was less-than significant in all categories other than Aesthetics and Transportation. The Aesthetic impacts no longer requires mitigation as they are addressed through submission of a photometric lighting plan, as required by development standards to be applied to the project site. A mitigation measure for Transportation has been incorporated into this project reflecting recommendations made in the Traffic Impact Assessment prepared for the development approved with the 2016 Rezone. This environmental document also includes an air impact analysis for all Phase 2 development included in the 2016 rezone. After the 2016 rezone several building permits were issued under Staff Approval Permits which allowed for several office and parking expansions as well as the addition of several truck-docking stations.

9. Surrounding land uses and setting:

Scattered single-family dwellings in all directions. To the north, orchards and row crops. To the east, a vineyard, orchards, and row crops. To the west, orchards, row crops, and a dairy farm. To the south, a chicken farm, orchard, row crops, and a dairy farm.

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

CalTrans
Stanislaus County Department of Public Works
Stanislaus County Department of
Environmental Resources
San Joaquin Valley Air Pollution Control District
Department of Conservation
Regional Water Quality Control Board
Turlock Irrigation District

11. Attachments:

Air Quality Analysis Report, completed by Mitchell Air Quality Consulting, dated June 25, 2019.
Traffic Impact Analysis, prepared by KD Anderson & Associates, Inc., dated November 23, 2016, as revised on March 15, 2017.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature on file.

Prepared by Kristin Doud, Principal Planner

March 23, 2021

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
 - 9) The explanation of each issue should identify:
 - a) the significant criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

ISSUES

I. AESTHETICS – Except as provided in Public Resources Code Section 21099, could the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In 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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Discussion: The only scenic designation in the County is along I-5, which is not near the project site. The site itself is not considered to be a scenic resource or a unique vista. Community standards generally do not dictate the need or desire for architectural review of agricultural uses or agriculturally related uses.

The existing facility is currently developed with structures to support the on-site wine manufacturing facility. The additional buildings approved with the 2016 rezone will be consistent with existing construction and will include additional fencing. Almond trees and grape vines line the Keyes Road frontage along the existing facility and proposed expansion to the east. The proposed buildings will not exceed 45 feet in height, with the warehouses totaling 26 feet in height. The proposed additional tanks will maintain consistent height with the existing tanks which range from 46 feet in height for the 200,000 and 350,000-gallon tanks to 60 feet in height for the 700,000-gallon tanks.

New pole lighting is proposed to be installed along the proposed driveway on the eastern parcels. Land Use Element Goal 2, Policy 16, Implementation Measures 1 and 2 requires that outdoor lighting be efficient and designed to provide minimum impact to the surrounding environment through the use of shielded fixtures, which direct light only towards the objects requiring illumination reduces this impact. Any additional on-site lighting will be required to demonstrate conformance with this General Plan policy through submission of a photometric lighting plan which is required to be submitted with any building permit for on-site lighting. This shall include, but not be limited to, the use of shielded light fixtures to prevent skyglow (light spilling into the night sky) and the installation of shielded fixtures to prevent light trespass (glare and spill light that shines onto neighboring properties). The environmental review completed for the 2016 rezone included a mitigation measure for on-site lighting. However, the requirement for a photometric lighting plan is consistently applied to discretionary land use entitlement projects as conditions of approval/development standards. Accordingly, the requirement for submission and approval of a photometric lighting plan for any new on-site lighting will be applied to this current rezone request as a development standard.

Aesthetic impacts are considered to be less-than significant.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	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 Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

Discussion: The project site is classified as Prime Farmland and Urban and Built-Up Land by the Farmland Mapping and Monitoring Program. The soils on site are listed as Grade 1 Hanford sandy loams (0-3% slopes, Index Rating of 95), Grade 2 Dinuba sandy loam (0-1% slopes, Index Rating between 60-72), and Grade 2 Tujunga loamy sand (0-3% slopes, Index Rating of 76).

The existing facility (041-046-022) is not enrolled in a Williamson Act Contract. When the Board of Supervisors approved the rezone in 2016, they found the proposed development to be directly related to the production of commercial agricultural product produced in the vicinity and to be compatible with the surrounding agricultural area.

The two eastern parcels are enrolled in Williamson Act Contract Nos. 1974-1790 and 1972-0838. These parcels are currently planted in almonds and are proposed to be utilized for future expansion of the operation's wine making operation, including additional wine tanks and shallow checks, which are considered to be Tier 2 uses in the A-2 (General Agriculture) zoning district. However, a Williamson Act Cancellation request is included to allow these parcels to be rezoned. In order for a Williamson Act Contract to be canceled, the Board of Supervisors must hold a public hearing on the request and make several findings as required by State law. Listed below are the findings required by California Government Code Section 51282 for tentative approval for cancellation of a contract:

1. That the cancellation is consistent with the purposes of the Williamson Act; **or**
2. That cancellation is in the public interest.

Stanislaus County has modified this action through language in the contract itself which states that **both** findings must be made. Government Code Section 51282 further specifies that cancellation is consistent with the purposes of the Williamson Act only if the Board of Supervisors makes all of the following findings:

1. That the cancellation is for land on which a notice of nonrenewal has been served pursuant to Government Code Section 51245.
2. That cancellation is not likely to result in the removal of adjacent lands from agricultural uses.
3. That cancellation is for an alternative use which is consistent with the applicable provision of the city or county general plan.
4. That cancellation will not result in discontinuous patterns of urban development.
5. That there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed, the contracted land be put or, that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land.

In addition, cancellation of a contract shall be in the public interest only if the Board makes the following findings:

1. That other public concerns substantially outweigh the objectives of the Williamson Act.
2. That there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed the contracted land be put or, that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land.

The applicant has provided written evidence to support the cancellation findings. Namely, the private road is being proposed to accommodate a request from the Department of Public Works to improve the safety of ingress and egress to the site from Keyes Road. A notice of request for cancellation of the Williamson Act Contract was referred to the California Department of Conservation on January 27, 2021; the resulting referral response stated that the Department of Conservation (DOC) believed the required findings could be made and that they had no further comments.

In December of 2007, Stanislaus County adopted an updated Agricultural Element, which incorporated guidelines for the implementation of agricultural buffers applicable to new and expanding non-agricultural uses within or adjacent to the A-2 Zoning District. The purpose of these guidelines is to protect the long-term health of agriculture by minimizing conflicts such as spray drift resulting from the interaction of agricultural and non-agricultural uses. Alternatives may be approved provided the Planning Commission finds that the alternative provides equal or greater protection than the existing buffer standards. With the exception of the northern most warehouses, all proposed buildings will exceed the 150-foot setback. Ag buffers will be re-evaluated when the parcels to the west develop, as additional land use entitlements will be required. The tanks and shallow checks proposed on the east parcels are permitted uses within the buffer area. The 2016 rezone approved the proposed development with an agricultural buffer alternative for the warehouses to be constructed on the northern most boundary, consisting of a reduced setback and existing fencing and landscaping, as they are used for storage and will only be occupied by employees intermittently.

The project site is located within the Turlock Irrigation District (TID) boundaries. A project referral response received from TID indicated that a 25-foot-wide irrigation easement is required along the existing Moore Ditch irrigation pipeline which runs along the south side of Keyes Road, along the west side of Bystrum Road. The District also requested to review and approve all improvement plans related to the project and to restrict work on irrigation facilities between November 1st and March 1st. If irrigation water is no longer needed for the eastern parcels to be improved with the additional wine tanks, shallow checks, and new driveway, the operator is required to apply for abandonment from the District. Additionally, developed property is required to be graded so that finished grading elevations are at least six inches higher than irrigated ground, and a protective berm is required to be installed to prevent irrigation water from reaching non-irrigated properties. Overhead powerlines are also located along the west side of Bystrum Road. The District requested that a 40-foot-wide electrical easement be granted to the District prior to abandonment of Bystrum Road. If perimeter fencing is to be installed the District shall be granted 24/7 access to the required easements. These requirements will be incorporated into the project as development standards.

Considering the information above, no negative impacts to agricultural resources are anticipated. The operation will be providing a service deemed necessary for a healthy agricultural economy, and will not compromise the long-term productive agricultural capabilities of the subject parcel, surrounding parcels, or other contracted lands in the A-2 zoning district. No forest resources exist in the area.

Mitigation: None.

References: Williamson Act Cancellation Request sent to the Department of Conservation, dated January 27, 2021; Referral response received from the Department of Conservation, dated March 25, 2021; Referral response received from the Turlock Irrigation District (TID), on August 26, 2019; California State Department of Conservation Farmland Mapping and Monitoring Program - Stanislaus County Farmland 2004; United States Department of Agriculture Soil Survey 1964 - Eastern Stanislaus Area, California; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

III. 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 Included	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those odors adversely affecting a substantial number of people?			X	

Discussion: The project site is within the San Joaquin Valley Air Basin, which has been classified as "severe non-attainment" for ozone and respirable particulate matter (PM-10) as defined by the Federal Clean Air Act. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has been established by the State in an effort to control and minimize air pollution. As such, the District maintains permit authority over stationary sources of pollutants.

The Board-approved 2016 rezone permitted the construction of 13 proposed buildings, totaling 1,342,186 square feet, which includes: three 120,000 square-foot warehouses, two with 10 additional truck docks each; three 44,483 square-foot warehouses; one 13,000 square-foot office; one 38,000 square-foot office; one 10,300 square-foot employee center (commercial kitchen, cafeteria, and conference area); one 2,264 square-foot pavilion (roof only shade structure); one 20,000 square-foot employee center (lockers and restrooms); one 30,000 square-foot administration building; a 16,000 square-foot filter storage building; up to 190 new wine tanks, and seven additional shallow checks.

The primary source of air pollutants generated by this project would be classified as being generated from "mobile" sources created from increased truck-trips generated from the expansion. Mobile sources would generally include dust from roads, farming, and vehicle exhausts. However, the addition of a fleet of trucks and the utilization of rail, will allow the current truck trip to inventory ratio to be decreased. Trucks currently arrive to the site empty or leave the site empty. The addition of their own truck fleet will allow truck trips to be full both on the way to the site and on the way to a delivery/pick-up destination. The use of rail will also offset truck trips, as the equivalent of four fully stocked trucks can fit into one rail car. At full build-out there will be approximately 30 additional year-round employees, for a total of 426 employees year-round and 516 employees seasonally. The addition of the employee center and pavilion will be utilized for educational seminars and meetings, to be held up to two times per year for up to 68 people, for Bronco's National sales force, and for Bronco's Wholesale Division's monthly meetings (Northern California sales force), which proposes to utilize the Ceres site up to four times per year for up to 50 managers.

A comment was received in response to the Mitigated Negative Declaration prepared for the 2016 rezone from the Air District indicating that further review of the project's potential impacts to air quality should be conducted. Specifically, the response letter stated that the project's emissions of criteria pollutants, at full build-out, may exceed the District's thresholds of 10 tons/year NOX, 10 tons/year ROG, and 15 tons/year PM10. Further, the response letter stated that project related pollutant emissions should be identified and quantified, for both existing and post-project construction and operational emissions. The letter also indicated that a Health Impact Assessment may also be needed to evaluate the project's health related impacts.

The comments provided by the Air District were based on the project at full build-out. However, Phase 1 of the project, which included one 120,000 square-foot warehouse, was under the threshold of significance for industrial projects, which ranges from 370,000 square feet for an industrial park, to 920,000 square feet for heavy industrial uses. Accordingly,

Phase 1 of the 2016 rezone was approved to move forward without additional analysis about potential air quality impacts. The development standards applied to the 2016 rezone required that future phases of the approved project be approved provided a use permit was obtained, which will allow additional CEQA analysis to be conducted, specifically in terms of potential impacts to air quality. Instead of a use permit, the additional environmental review is being completed through this rezone request, to also allow for the two western parcels and two eastern parcels to be incorporated into the existing operations as one zoning district.

An Air Quality Analysis Report was conducted by Mitchell Air Quality Consulting on June 25, 2019. The report included all uses approved with the 2016 rezone, including Phase 1 which is already built, in calculating emissions and making significance determinations in the analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod) to calculate emission factors for grading, construction, and paving activities and for operational emissions, made up of motor vehicles (fleet and employee vehicles and trains), architectural coatings, consumer products, landscape equipment, and natural gas. The analysis founds that emissions of ROG, NOX, PM10, and PM2.5 associated with the construction and operation of the project would not exceed the District's significance thresholds, would not result in CO hotspots that would violate CO standards, and would not contribute to air quality violations. The project was determined not to contain sources that would produce substantial quantities of SO2 emissions during construction and operation and to be below the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) thresholds of significance. As the SJVAPCD Air Quality Attainment Plans predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region, cumulative health impacts were anticipated to decline even with the project's emission contribution. The closest sensitive receptors to the project site is a house located at the northeast corner of Keyes and Bystrum Roads, approximately 574 feet northeast of the new rail spur. The analysis found that the largest source of cancer risk to nearby sensitive receptors is from train operations, which comprise about 91 percent of the risk resulting from the project; but also indicated that the screening tool found the project's cancer risk and chronic risk would be less-than significant. Further, the analysis found that the project would not exceed the SJVAPCD's screening thresholds for localized criteria pollutant impacts and would have a less-than significant impact on localized criteria pollutants. The project was also found to have less-than significant impacts to Toxic Air Contaminants (TACs) from either construction or operational emissions and to not have the potential to significantly contribute to an exceedance of state or federal CO standards. The analysis also found the project's odor impacts to be less-than significant. There will be additional odor associated with the expanded shallow checks. However, a landscape buffer will be in place as well as standard rotation practices to minimize any odor from nearby sensitive receptors. Additionally, as the project must comply with District regulations, including Rule 2201 – New and Modified Stationary Source Review Rule, Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving, and Maintenance Operations, Regulation VIII – Fugitive PM10 Prohibitions, and Rule 4601 – Architectural Coatings, the project's emissions would be less-than significant for all criteria pollutants, would not be inconsistent with any applicable air quality attainment plans, and would result in less-than significant impacts to air quality.

Mitigation: None.

References: Air Quality Analysis Report, prepared by Mitchell Air Quality Consulting, dated June 25, 2019; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; www.valleyair.org; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

IV. BIOLOGICAL RESOURCES -- Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	

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?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

Discussion: The project is located within the Ceres Quad of the California Natural Diversity Database. There are 14 plants and animals which are state or federally listed, threatened, or identified as species of special concern within the Waterford California Natural Diversity Database Quad. These species include the Swainson's hawk, tricolored blackbird, burrowing owl, riffle sculpin, hardhead, steelhead, chinook salmon, obscure bumble bee, Crotch bumble bee, valley elderberry longhorn beetle, moestan blister beetle, Townsend's big-eared bat, heartscale, and subtle orache. However, the project site has previously been graded, and disturbed through commercial farming practices or is developed and hardscaped, making the likelihood for existence of these species on the project site very low.

An Early Consultation was sent to the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and no response was received. The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Biological Resources. The project will not conflict with a Habitat Conservation Plan, a Natural Community Conservation Plan, or other locally approved conservation plans. Impacts to endangered species or habitats, locally designated species, wildlife dispersal or mitigation corridors are considered to be less-than significant.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; California Department of Fish and Wildlife's Natural Diversity Database Quad Species List; Stanislaus County General Plan and Support Documentation¹.

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

Discussion: A referral response received from the California Native American Heritage Commission (NAHC) provided an overview of the requirements for tribal consultation under CA Assembly Bill 52 and Senate Bill 18. This project was referred to the tribes listed with the NAHC, however, no response from any of the notified tribes were received. A records search conducted by the Central California Information Center for the project site indicated that there are no historical, cultural, or archeological resources recorded on-site and that the site has a low sensitivity for the discovery of such resources. It does not appear that this project will result in significant impacts to any archaeological or cultural resources. The project site is already developed, and the proposed construction is within the area which has already been disturbed. However, development standards will be placed on the project, requiring that construction activities shall be halted if any resources are found, until appropriate agencies are contacted and an archaeological survey is completed. The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Cultural Resources.

Mitigation: None.

References: Central California Information Center Report for the project site, dated May 27, 2009; Referral response received from the California Native American Heritage Commission, received August 26, 2019; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

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

Discussion: The CEQA Guidelines Appendix F states that energy consuming equipment and processes, which will be used during construction or operation such as: energy requirements of the project by fuel type and end use, energy conservation equipment and design features, energy supplies that would serve the project, total estimated daily vehicle trips to be generated by the project, and the additional energy consumed per trip by mode, shall be taken into consideration when evaluating energy impacts. Additionally, the project's compliance with applicable state or local energy legislation, policies, and standards must be considered.

A comment was received in response to the Mitigated Negative Declaration prepared for the 2016 rezone from the Air District indicating that further review of the project's potential impacts to air quality should be conducted. The project was approved, but required additional environmental analysis on potential air quality impacts for anything beyond Phase 1 of the project, which included one 120,000 square-foot warehouse, the addition of a railroad spur, and some additional truck parking. An Air Quality Analysis Report was conducted by Mitchell Air Quality Consulting on June 25, 2019. The report included all uses approved with the 2016 rezone, including Phase 1 which is already built, in calculating emissions and making significance determinations in the analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod) to calculate emission factors for grading, construction, and paving activities and for operational emissions, made up of motor vehicles (fleet and employee vehicles and trains), architectural coatings, consumer products, landscape equipment, and natural gas. The analysis finds that emissions of ROG, NOX, PM10, and PM2.5 associated with the construction and operation of the project would not exceed the District's significance thresholds, would not result in CO hotspots that would violate CO standards, and would not contribute to air quality violations. The project was determined not to contain sources that would produce substantial quantities of SO2 emissions during construction and operation and to be below the SJVAPCD GAMAQI thresholds of significance.

The proposed structures are subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11).

Additionally, as the project must comply with District regulations, including Rule 2201 – New and Modified Stationary Source Review Rule, Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving, and Maintenance Operations, Regulation VIII – Fugitive PM10 Prohibitions, and Rule 4601 – Architectural Coatings, the project would result in less-than significant impacts to energy.

Mitigation: None.

References: Air Quality Analysis Report, prepared by Mitchell Air Quality Consulting, dated June 25, 2019; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

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

Discussion: The soils on site are listed as Grade 1 Hanford sandy loams (0-3% slopes, Index Rating of 95), Grade 2 Dinuba sandy loam (0-1% slopes, Index Rating between 60-72), and Grade 2 Tujunga loamy sand (0-3% slopes, Index Rating of 76). As contained in Chapter 5 of the General Plan Support Documentation, the areas of the County subject to significant geologic hazard are located in the Diablo Range, west of Interstate 5. However, as per the 2007 California Building Code, all of Stanislaus County is located within a geologic hazard zone (Seismic Design Category D, E, or F) and a soils test may be required at building permit application. Results from the soils test will determine if unstable or expansive soils are present. If such soils are present, special engineering of the structure will be required to compensate for the soil deficiency. Any structures resulting from this project will be designed and built according to building standards appropriate to withstand shaking for the area in which they are constructed. Any earth moving is subject to Public Works Standards and Specifications which considers the potential for erosion and run-off prior to permit approval. Likewise, any addition of a septic tank or alternative waste water disposal system would require the approval of the Department of Environmental Resources (DER) through the building permit process, which also takes soil type into consideration within the specific design requirements.

A referral response received from the Department of Public Works indicated that a grading and drainage plan for the project will be required, subject to Public Works review and Standards and Specifications. Building permits will also be required for any new construction. These requirements will be added as development standards. Stanislaus County Department of Public Works has already reviewed and approved a grading and drainage plan for proposed Phase 1 of this project, which includes the 120,000 square-foot warehouse (labeled on the site plan as Building Q) and a drainage basin, located on the northeast portion of the project site. Additional grading and drainage plans are required to be submitted to the Department of Public Works for review and approval for any additional grading activities.

The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Geology and Soils. Compliance with the Storm Water Pollution Prevention Program (SWPPP), with the Alquist-Priolo Earthquake Fault Zoning Act, and the California Building Code are all required through the building and grading permit review process which would reduce the risk of loss, injury, or death due to earthquake or soil erosion to less-than significant. Impacts to Geology and Soils are considered to be less-than significant.

Mitigation: None.

References: Referral response received from the Department of Environmental Resources, Environmental Health division, dated September 5, 2019; Referral response received from the Stanislaus County Public Works Department, dated June 4, 2020; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

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

Discussion: The principal Greenhouse Gasses (GHGs) are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and tropospheric Ozone (O₃). CO₂ is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] No. 32), which requires the California Air Resources Board (ARB) design and implement emission limits, regulations and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

The expansion includes construction of 13 proposed buildings, totaling 1,342,186 square feet, which includes: three 120,000 square-foot warehouses, two with 10 additional truck docks each; three 44,483 square-foot warehouses; one 13,000 square-foot office; one 38,000 square-foot office; one 10,300 square-foot employee center (commercial kitchen, cafeteria, and conference area); one 2,264 square-foot pavilion (roof only shade structure); one 20,000 square-foot employee center (lockers and restrooms); one 30,000 square-foot administration building; a 16,000 square-foot filter storage building; up to 190 new wine tanks, and seven additional shallow checks.

A comment was received in response to the Mitigated Negative Declaration prepared for the 2016 rezone from the Air District indicating that further review of the project's potential impacts to air quality should be conducted. The project was approved, but required additional environmental analysis on potential air quality impacts for anything beyond Phase 1 of the project, which included one 120,000 square-foot warehouse, the addition of a railroad spur, and some additional truck parking. An Air Quality Analysis Report was conducted by Mitchell Air Quality Consulting on June 25, 2019. The report included all uses approved with the 2016 rezone, including Phase 1 which is already built, in calculating emissions and making significance determinations in the analysis. The analysis utilized the California Emissions Estimator Model (CalEEMod) to calculate emission factors for grading, construction, and paving activities and for operational emissions, made up of motor vehicles (fleet and employee vehicles and trains), architectural coatings, consumer products, landscape equipment, and natural gas. The analysis finds that emissions of ROG, NOX, PM₁₀, and PM_{2.5} associated with the construction and operation of the project would not exceed the District's significance thresholds, would not result in CO hotspots that would violate CO standards, and would not contribute to air quality violations. The project was determined not to contain sources that would produce substantial quantities of SO₂ emissions during construction and operation and to be below the SJVAPCD GAMAQI thresholds of significance.

The project will be required to obtain all applicable Air District permits, including an Authority to Construct (ATC) Permit and may be subject to the following District Rules: Rule 9510, Regulation VIII, Rule 4102, Rule 4601, Rule 4641, Rule 4002, Rule 4102, Rule 4550, and Rule 4570. The proposed building will also be subject to the mandatory planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and environmental quality measures of the California Green Building Standards (CALGreen) Code (California Code of Regulations, Title 24, Part 11). Staff will include development standards on the project requiring that the applicant comply with Title 24, obtain building permits, and be in compliance with the Air District's rules and regulations. Impacts to Greenhouse Gas Emissions are considered to be less-than significant.

Mitigation: None.

References: Air Quality Analysis Report, prepared by Mitchell Air Quality Consulting, dated June 25, 2019; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

IX. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Discussion: The Department of Environmental Resources (DER), Hazardous Materials (Haz Mat) Division currently permits the site through their Hazardous Materials Business Plan program. The project was referred to the Department of Environmental Resources (DER) Hazardous Materials (Haz Mat) Division and a response was received requesting that the operator notify Haz Mat and update the California Electronic Reporting System (CERS) if the location of regulated tanks/containers will be moved, or if changes are made to the proposed waste reduction/disposal practices, or to the waste storage capacities or quantities of waste generated as a result of proposed project. Additionally, if the project involves the installation of monitoring wells and/or drilling of soil borings, the applicant must submit a permit application for groundwater monitoring wells and exploratory borings to Haz Mat. These requirements will be incorporated into the project as development standards.

Chapter 6.95 of the California Health and Safety Code requires businesses that use, handle, or store hazardous materials above an identified threshold to submit a Hazardous Materials Business Plan. The applicant is required to use, store, and dispose of any hazardous materials in accordance with all applicable federal, state, and local regulations. A referral response was received from the Department of Environmental Resources (DER) Hazardous Materials Division stating that a Phase 1 or Phase 2 study may be required to determine if any buried hazardous materials or contaminated soils exist on site prior to issuance of a grading permit, and that the Department be contacted in the event any underground storage tanks, chemicals, refuse, or contaminated soil are discovered during construction. These requirements will be added as development standards.

Pesticide exposure is a risk in areas located in the vicinity of agriculture. Sources of exposure include contaminated groundwater, which is consumed, and drift from spray applications. Application of sprays is strictly controlled by the Agricultural Commissioner and can only be accomplished after first obtaining permits. Additionally, agricultural buffers are

intended to reduce the risk of spray exposure to surrounding people, as discussed in the Section II – Agriculture and Forest Resources of this report. The project was referred to the Stanislaus County Agricultural Commissioner and no comments have been received to date.

The project site is not listed on the EnviroStor database managed by the CA Department of Toxic Substances Control or within the vicinity of any airport. The project site is not located within an airport land use plan or a wildlands area. The project site is not located in a very high or high fire severity zone and is located within the Keyes Fire District. Standard development standards regarding fire protection will be incorporated into the project.

The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Hazards and Hazardous Materials. With requirements in place requiring that the operation obtain all applicable hazardous materials permits, no significant impacts to hazards or hazardous materials are anticipated to occur as a result of the project.

Mitigation: None.

References: Referral Response received from the Department of Environmental Resources (DER), Hazardous Materials (Haz Mat) Division, dated August 19, 2019; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

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

Discussion: The project is served by an on-site well (which is permitted as a public water system) and septic system and by the Turlock Irrigation District (TID) for irrigation water. Water quality in Stanislaus County is regulated by the Regional Water Quality Control Board, Central Valley Region, (RWQCB) under a Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins. Under the Basin Plan, the RWQCB issues Waste Discharge Requirements (WDRs) to regulate discharges with the potential to degrade surface water and/or groundwater quality. In addition, the RWQCB issues orders to cease and desist, conduct water quality investigations, or implement corrective actions. The

Stanislaus County Department of Environmental Resources (DER) manages compliance with WDRs for some projects under a Memorandum of Understanding with the RWQCB. The RWQCB provided an Early Consultation Referral response requesting that the applicant coordinate with their agency to determine if any permits or Water Board requirements be obtained/met prior to operation. Development standards will be added to the project requiring the applicant comply with this request prior to issuance of a building permit.

By virtue of the proposed paving for the parking lot, the current absorption patterns of water upon this property will be altered; however, current standards require that all of a project's stormwater be maintained on-site. Stanislaus County Department of Public Works has already reviewed and approved a grading and drainage plan for Phase 1 of the 2016 rezone project, which included a 120,000 square-foot warehouse and a drainage basin, located on the northeast portion of the project site. Additional grading and drainage plans are required to be submitted to the Department of Public Works for review and approval for any additional grading activities. A Notice of Intent (NOI) may be required to be filed with the California Regional Water Quality Control Board and a Waste Discharge Identification Number obtained, in conjunction with future grading or building permits. These requirements will be reflected in the development standards applied to this project.

The California Safe Drinking Water Act (CA Health and Safety Code Section 116275(h)) defines a Public Water System as a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.

1. Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.
2. Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

The operation is currently permitted as a Public Water System. Prior to the installation of any water infrastructure for the site, the property owner is required to provide DER an application for amended water supply permit along with a full technical report demonstrating that the water system will meet all requirements of a Nontransient Noncommunity water system; including, but not limited to capacity, source water, treatment plant modifications, and water works standards.

Groundwater management in California is regulated under the 2014 California Sustainable Groundwater Management Act (SGMA), which requires the formation of local Groundwater Sustainability Agencies (GSAs) to oversee the development and implementation of Groundwater Sustainability Plans (GSPs). SGMA defines sustainable groundwater management as the prevention of "undesirable results," including significant and unreasonable chronic groundwater levels, reduction of groundwater storage, degraded water quality, land subsidence, and/or depletions of interconnected surface water. GSPs define minimum thresholds and measurable objectives for sustainable groundwater management, designate monitoring networks to assess compliance with these management criteria, and prescribe management actions and projects to achieve sustainability objectives within 20 years of their adoption.

Public and private water agencies and user groups within each of the four groundwater subbasins underlying the County work together as GSAs to implement SGMA. The DER is a participating member in five GSAs. GSPs were adopted in January 2020 for the portions of the County underlain by the Eastern San Joaquin and Delta-Mendota Groundwater Subbasins, and will be adopted for the Turlock and Modesto Subbasins by January 31, 2022. The subject project is located within the West Turlock Groundwater Subbasin and the jurisdiction of the East Turlock Subbasin GSA.

Groundwater management in Stanislaus County is also regulated under the County Groundwater Ordinance, adopted in 2014. The Groundwater Ordinance is aligned with SGMA in its objective to prevent "undesirable results". To this end, the Groundwater Ordinance requires that applications for new wells that are not exempt from the Ordinance are accompanied by substantial evidence that operation of the new well will not result in unsustainable groundwater extraction. Further, the owner of any well from which the County reasonably concludes groundwater may be unsustainably withdrawn, is required to provide substantial evidence of sustainable extraction. No new wells are anticipated to be installed as a result of this project. However, if a new well were required in the future, the drilling of a new well would be regulated by the County's Groundwater Ordinance and thus require CEQA-compliance.

In addition to GSPs and the Groundwater Ordinance, the County General Plan includes goals, policies, and implementation measures focused on protecting groundwater resources. Projects with a potential to affect groundwater recharge or that involve the construction of new wells are referred to the DER for review. The DER evaluates these projects for compliance

with the County Groundwater Ordinance and refers projects to the applicable GSAs for determination whether or not they are compliance with an approved GSP.

Areas subject to flooding have been identified in accordance with the Federal Emergency Management Act (FEMA). The project site is located in FEMA Flood Zone X, which includes areas determined to be outside the 0.2% annual chance floodplains. All flood zone requirements will be addressed by the Building Permits Division during the building permit process.

Installation of any new septic systems must be reviewed and approved by DER and must adhere to current Local Agency Management Program (LAMP) standards. LAMP standards include minimum setbacks from wells to prevent negative impacts to groundwater quality

The project site is located within the Turlock Irrigation District (TID) boundaries. A project referral response received from TID indicated that a 25-foot-wide irrigation easement is required along the existing Moore Ditch irrigation pipeline which runs along the south side of Keyes Road and along the west side of Bystrum Road. The District also requested to review and approve all improvement plans related to the project and to restrict work on irrigation facilities between November 1st and March 1st. If irrigation water is no longer needed on the eastern parcels to be developed with additional wine tanks, shallow checks, and the new driveway, the operator is required to apply for abandonment from the District. Additionally, developed property is required to be graded so that finished grading elevations are at least six inches higher than irrigated ground and a protective berm is required to be installed to prevent irrigation water from reaching non-irrigated properties. If perimeter fencing is to be installed the District shall be granted 24/7 access to the required easement. These requirements will be incorporated into the project as development standards.

The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Hydrology and Water Quality. As a result of the development standards and permitting required for this project, impacts associated with drainage, water quality, and runoff are expected to have a less-than significant impact.

Mitigation: None.

References: Referral response received from the Department of Environmental Resources, Environmental Health division, dated September 5, 2019; Referral response received from the Central Valley Regional Water Quality Control Board, on August 16, 2019; Referral response received from the Turlock Irrigation District (TID), on August 26, 2019; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Stanislaus County Geographical Information System (GIS); Sustainable Groundwater Management Act; Stanislaus County Code Title 9 Chapter 9.37 Groundwater; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XI. LAND USE AND PLANNING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Physically divide an established community?			X	
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?			X	

Discussion: This is a request to rezone three parcels, consisting of 157.98 acres, from Planned Development (P-D) (336) and A-2 (General Agriculture) to a new P-D to allow for an expansion of the Bronco Winery facilities wine making operations, including the construction of up to 190 wine storage tanks and seven shallow checks, and development of a new driveway, on two parcels 38.58 acres in size located northeast of the existing facility. A Williamson Act Cancellation of Contract Nos. 1972-0838 and 1974-1790 is required for the rezone of the 38.58 acres from A-2 to P-D. The portion of Bystrum Road along the west side of the existing facility is proposed to be abandoned and developed with a second rail spur to serve the facility.

The project site has a general plan designation of Agriculture. The parcel improved with the existing facility (APN: 041-046-022) included in the project was approved in 2016, under Rezone Application No. PLN2016-0066 – Bronco Wine Company, for an expansion of their existing facility with 14 buildings, totaling 1,462,186 square feet to be developed in phases. Phase 1 of the 2016 rezone included construction of a 120,000 square-foot warehouse to be utilized for the

storage of bottled wine stock, construction of two rail spurs to be utilized for deliveries, a fleet of 53-foot-long trucks and tanker trucks, and fencing around the perimeter of the new warehouse. Development of the 120,000 square-foot warehouse was completed in 2018. Other uses proposed with the 2016 rezone included:

- Three 120,000 square-foot warehouses, two with 10 additional truck docks each
- Three 44,483 square-foot warehouses
- A 13,000 square-foot office
- A 38,000 square-foot office
- A 10,300 square-foot employee center
- A 2,264 square-foot pavilion
- A 20,000 square-foot employee center (lockers and restrooms)
- A 30,000 square-foot administration building
- A 16,000 square-foot filter storage building.

These uses were to be constructed according to market demand and were subject to obtaining additional land use entitlement permits. This Rezone will allow for full build-out of all of the proposed uses included in the 2016 rezone.

If approved, the entire project site would maintain a General Plan designation of Agriculture. The "Agriculture" General Plan designation is consistent with a Planned Development zoning designation when, *"it is used for agriculturally- related uses or for uses of a demonstrably unique character, which due to specific agricultural needs or to their transportation needs or to needs that can only be satisfied in the agriculture designation, may be properly located within areas designated as "agricultural" on the General Plan. Such uses can include facilities for packing fresh fruit, facilities for the processing of agricultural commodities utilized in the County's agriculture community, etc."*

The proposed Planned Development zoning designation is a designation intended for land which, because of demonstrably unique characteristics, may be suitable for a variety of uses without detrimental effects on other property.

The two eastern parcels are enrolled in Williamson Act Contract Nos. 1974-1790 and 1972-0838. These parcels are currently planted in almonds and are proposed to be utilized for future expansion of the operation's wine making operation, including additional wine tanks and shallow checks, which are considered to be Tier 2 uses in the A-2 (General Agriculture) zoning district. However, a Williamson Act Cancellation request is included to allow these parcels to be rezoned. In order for a Williamson Act Contract to be canceled, the Board of Supervisors must hold a public hearing on the request and make several findings as required by State law. Listed below are the findings required by California Government Code Section 51282 for tentative approval for cancellation of a contract:

1. That the cancellation is consistent with the purposes of the Williamson Act; or
2. That cancellation is in the public interest.

Stanislaus County has modified this action through language in the contract itself which states that both findings must be made. Government Code Section 51282 further specifies that cancellation is consistent with the purposes of the Williamson Act only if the Board of Supervisors makes all of the following findings:

1. That the cancellation is for land on which a notice of nonrenewal has been served pursuant to Government Code Section 51245.
2. That cancellation is not likely to result in the removal of adjacent lands from agricultural uses.
3. That cancellation is for an alternative use which is consistent with the applicable provision of the city or county general plan.
4. That cancellation will not result in discontinuous patterns of urban development.
5. That there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed, the contracted land be put or, that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land.

In addition, cancellation of a contract shall be in the public interest only if the Board makes the following findings:

1. That other public concerns substantially outweigh the objectives of the Williamson Act.
2. That there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed the contracted land be put or, that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land.

The applicant has provided written evidence to support the cancellation findings. Namely, the private road is being proposed to accommodate a request from the Department of Public Works to improve the safety of ingress and egress to the site from Keyes Road. A notice of request for cancellation of the Williamson Act Contract was referred to the California Department of Conservation on January 27, 2021; the resulting referral response stated that the Department of Conservation (DOC) believed the required findings could be made and that they had no further comments.

This request will not physically divide an existing community, nor does it conflict with any applicable land use plan, policy, or regulation, or any habitat or natural community conservation plan. The project must be consistent with the County's General Plan and Zoning Ordinance in order to be approved.

Mitigation: None.

References: Williamson Act Cancellation Request sent to the Department of Conservation, dated January 27, 2021; Referral response received from the Department of Conservation, dated March 25, 2021; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XII. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

Discussion: The location of all commercially viable mineral resources in Stanislaus County has been mapped by the State Division of Mines and Geology in Special Report 173. There are no known significant resources on the site.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

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

Discussion: The Stanislaus County General Plan identifies noise levels up to 70 dB Ldn (or CNEL) as the normally acceptable level of noise for industrial, manufacturing, utilities, and agriculture uses. The proposed project is required to comply with the noise standards included in the General Plan and Noise Control Ordinance. On-site grading and

construction resulting from this project may result in a temporary increase in the area's ambient noise levels; however, noise impacts associated with on-site activities and traffic are not anticipated to exceed the normally acceptable level of noise. Impacts associated with noise are considered to be less-than significant. Additionally, the previous Mitigated Negative Declaration approved for the 2016 rezone found no significant noise impacts.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XIV. POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X	

Discussion: The site is not included in the vacant sites inventory for the 2016 Stanislaus County Housing Element, which covers the 5th cycle Regional Housing Needs Allocation (RHNA) for the County and will therefore not impact the County's ability to meet their RHNA. No population growth will be induced and no housing will be removed as a result of this project. The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Population and Housing.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XV. PUBLIC SERVICES --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project result in the 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:			X	
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Discussion: The County has adopted Public Facilities Fees, as well as one for the Fire Facility Fees on behalf of the appropriate fire district, to address impacts to public services. Such fees are required to be paid at the time of building permit issuance. Development Standards will be added to this project to ensure that the proposed development complies with all applicable fire department standards, with respect to access and water for fire protection. The applicant will construct all buildings in accordance with the current adopted building and fire codes. The previous Mitigated Negative

Declaration approved for the 2016 rezone found no significant impacts to Public Services. With development standards and public facility fees in place, no impacts to public services are anticipated.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XVI. RECREATION --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Discussion: The proposed project is not anticipated to significantly increase demand on recreational facilities or to have an adverse physical effect on the environment.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

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

Discussion: Request to rezone three parcels, consisting of 157.98 acres, from Planned Development (P-D) (336) and A-2 (General Agriculture) to a new P-D to allow for an expansion of the Bronco Winery facilities wine making operations, including the construction of up to 190 wine storage tanks and seven shallow checks, and development of a new driveway, on two parcels 38.58 acres in size located northeast of the existing facility. A Williamson Act Cancellation of Contract Nos. 1972-0838 and 1974-1790 is required for the rezone of the 38.58 acres from A-2 to P-D. The portion of Bystrum Road along the west side of the existing facility is proposed to be abandoned and developed with a second rail spur to serve the facility.

Rezone Application No. PLN2016-0066 – Bronco Wine Company permitted an expansion of the existing facility with 14 buildings, totaling 1,462,186 square feet to be developed in phases. Phase 1 of the 2016 rezone, including construction of a 120,000 square-foot warehouse to be utilized for the storage of bottled wine stock, construction of a railroad spur, and parking of a fleet of 53-foot-long trucks and tanker trucks, was completed in 2018. Phase 2 uses, approved with the 2016

rezone, were required to complete additional environmental review for Air Impacts and to implement traffic mitigation which required that safety improvements to the intersection of Keyes Road and Bystrum Road, including dedicated turn lanes per the California Highway Design Manual, to be installed prior to construction. The Phase 2 approved uses included:

- Three 120,000 square-foot warehouses, two with 10 additional truck docks each
- Three 44,483 square-foot warehouses
- A 13,000 square-foot office
- A 38,000 square-foot office
- A 10,300 square-foot employee center
- A 2,264 square-foot pavilion
- A 20,000 square-foot employee center (lockers and restrooms)
- A 30,000 square-foot administration building
- A 16,000 square-foot filter storage building.

A Traffic Impact Analysis (TIA) was prepared by KD Anderson & Associates, Inc., dated November 23, 2016 for the uses approved with the 2016 rezone. The analysis evaluated traffic impacts from the project based on the proposed new structures and based on the addition of a fleet of trucks and the utilization of rail, which will allow the current truck trip to inventory ratio to be decreased. Trucks currently arrive to the site empty or leave the site empty. The addition of their own truck fleet allows truck trips to be full both on the way to the site and on the way to a delivery/pick-up destination. The use of rail will also offset truck trips as the equivalent of four fully stocked trucks can fit into one rail car. There are currently 396 employees year-round with an additional 90 employees during seasonal months, for a total of 486 employees maximum. At full build-out there will be approximately 30 additional year-round employees, for a total of 426 employees year-round and 516 employees seasonally. As recommended by the TIA prepared for the 2016 rezone a mitigation measure to prevent safety impacts due to ingress and egress from the facility's driveways onto Keyes Road is being incorporated into the project as follows:

Prior to issuance of a Certificate of Occupancy for Building "P", the applicant shall submit improvement plans for a new driveway along the eastern boundary of the project site to safely access Keyes Road at the intersection of Morgan Road to the Stanislaus County Department of Public Works for review and approval. The County shall apply and be responsible for any applicable utility relocations. Construction of the driveway shall be completed within 180 days of completion of the utility pole relocation. Any other new driveway constructed along Keyes Road shall be limited to right-in/right-out access to facilitate safe ingress and egress to the site. Driveway location, design, and improvement plans shall be reviewed and approved by the Stanislaus County Department of Public Works.

A referral response received from Public Works also requested that the following requirements be applied to the project request:

- A grading and drainage plan be obtained.
- The applicant install or pay for the installation of any signs and/or markings, if warranted.
- No parking, loading or unloading of vehicles will be permitted within the Stanislaus County road right-of-way.
- An Encroachment Permit shall be obtained for any work done in Stanislaus County right-of-way.
- All driveway locations and widths shall be approved by Public Works and shall be installed to County standards.
- An Irrevocable Offer of Dedication for Keyes Road be submitted, reviewed, and recorded prior to the issuance of any building or grading permit.
- Prior to the Department of Public Works doing any plan review or inspections associated with the development, the applicant shall sign a "Plan Check/Inspection Agreement" and post a \$5,000 deposit with Public Works.
- Prior to acceptance of the road improvements, a set of Record Drawings, as specified in the County's Standards and Specifications, and scanned files for each sheet in a PDF format shall be provided to the Department of Public Works for review and approval.
- A financial guarantee in a form acceptable to the Department of Public Works shall be deposited for the street improvements installation along the frontage on Keyes Road with the Department of Public Works prior to the issuance of the first building permit.
- An engineer's estimate shall be provided for the road improvements to determine the amount of the financial guarantee. This shall be submitted prior to issuance if any building permit and after the road improvements have been approved by Department of Public Works.
- Prior to the abandonment of Bystrum Road, the proposed private driveway on the eastern parcels, aligning with Morgan Road, shall be fully installed and accepted by Department of Public Works.

- Once the abandonment of Bystrum Road is complete, a gate and lockbox shall be installed restricting access to the public if an Emergency Vehicle Access is to be established.
- No additional trucks are allowed to utilize the Keyes Entrance labeled as Keyes Road Entrance “B”, also known as Pike Road. Truck trips are limited to the following number of trips:
 - In Season:
 - Grape Trucks 105/day and 735/week
 - Pomace Trucks 23/day and 163/week
 - Out of Season:
 - Tanker Trucks 34/day and 230/week

As required by CEQA Guidelines section 15064.3, potential impacts to the transportation system should evaluate Vehicle Miles Traveled (VMT). The calculation of VMT is the number of cars/trucks multiplied by the distance traveled by each car/truck. While heavy trucks are not considered in the definition of automobiles for which VMT is calculated for, heavy-duty truck VMT could be included for modeling convenience. According to the same technical advisory from OPR, many local agencies have developed screening thresholds of VMT to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per-day generally may be assumed to cause a less-than significant transportation impact. The proposed project will result in an increase of Vehicle Miles Traveled, however, the increase associated with the proposed project is less-than significant as the additional amount of heavy truck trips is less than 110 per-day.

Impacts to Transportation are considered to be less-than significant with mitigation included.

Mitigation:

1. Prior to issuance of a Certificate of Occupancy for Building “P”, the applicant shall submit improvement plans for a new driveway along the eastern boundary of the project site to safely access Keyes Road at the intersection of Morgan Road to the Stanislaus County Department of Public Works for review and approval. The County shall apply and be responsible for any applicable utility relocations. Construction of the driveway shall be completed within 180 days of completion of the utility pole relocation. Any other new driveway constructed along Keyes Road shall be limited to right-in/right-out access to facilitate safe ingress and egress to the site. Driveway location, design, and improvement plans shall be reviewed and approved by the Stanislaus County Department of Public Works.

References: Traffic Impact Analysis prepared by KD Anderson & Associates, Inc., dated November 23, 2016, revised March 15, 2017; Referral response received from the Department of Public Works, dated February 23, 2021; Referral response received from CalTrans, District 10, dated August 28, 2019; Referral response received from the Environmental Review Committee, dated August 26, 2019; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Discussion: The project site is located within the Turlock Irrigation District (TID) boundaries. A project referral response received from TID indicated that a 25-foot-wide irrigation easement is required along the existing Moore Ditch irrigation pipeline which runs along the south side of Keyes Road and along the west side of Bystrum Road. The District also requested to review and approve all improvement plans related to the project and to restrict work on irrigation facilities between November 1st and March 1st. If irrigation water is no longer needed for the eastern parcels to be developed with additional wine tanks, shallow checks, and a new driveway, the operator is required to apply for abandonment from the District. Additionally, developed property is required to be graded so that finished grading elevations are at least six inches higher than irrigated ground and a protective berm is required to be installed to prevent irrigation water from reaching non-irrigated properties. Overhead powerlines are also located along the west side of Bystrum Road. The District requested that a 40-foot-wide electrical easement be granted to the District prior to abandonment of Bystrum Road. If perimeter fencing is to be installed the District shall be granted 24/7 access to the required easements. These requirements will be incorporated into the project as development standards.

Limitations on providing services have not been identified. Conditions of Approval will be added to the project to address necessary permits from DER. On-site services will be provided by an approved septic system and water well as determined by DER. A public water system permit will be required to be maintained through DER.

The previous Mitigated Negative Declaration approved for the 2016 rezone found no significant impacts to Utilities and Service Systems. With Conditions of Approval in place, no impacts to utilities and service systems are anticipated.

Mitigation: None.

References: Referral response received from the Department of Environmental Resources, Environmental Health division, dated September 5, 2019; Referral response received from the Turlock Irrigation District (TID), on August 26, 2019; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Development Standards for Planned Development (336), approved under planning Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation of 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?			X	
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?			X	

Discussion: The Stanislaus County Local Hazard Mitigation Plan identifies risks posed by disasters and identifies ways to minimize damage from those disasters. With the Wildfire Hazard Mitigation Activities of this plan in place, impacts to an adopted emergency response plan or emergency evacuation plan are anticipated to be less-than significant. The terrain of

the site is relatively flat, and the site has access to a County-maintained road. The site is located in a Local Responsibility Area (LRA) for fire protection and is served by the Keyes Fire Protection District. The project was referred to the Keyes Fire Protection District, but no response was received. California Building Code establishes minimum standards for the protection of life and property by increasing the ability of a building to resist intrusion of flame and embers. All construction must comply with current adopted fire code, including the payment of fire service impact mitigation fees, on-site water supply and infrastructure for fire protection, installation of a Knox box, and emergency vehicle access. Wildfire risk and risks associated with postfire land changes are considered to be less-than significant.

Mitigation: None.

References: Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant With Mitigation Included	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?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: Review of this project has not indicated any features which might significantly impact the environmental quality of the site and/or the surrounding area. The surrounding area is made up of agriculturally properties, many of which are enrolled in Williamson Act contracts, which have a zoning designation of A-2-40 (General Agriculture) and a General Plan designation of Agriculture. The nearest urbanized community is the Community of Keyes which is located approximately 3.5 miles east of the project site. This community has a defined boundary that is encompassed by both the Keyes Community Service District (CSD) Sphere of Influence (SOI) and the Keyes Community Plan, neither of which can be amended without approval of discretionary entitlements or action by the Stanislaus County Local Area Formation Commission (LAFCO). Agriculturally zoned parcels are permitted to utilize land for the purposes of commercial agriculture and accessory agricultural and residential structures. Those parcels enrolled in the Williamson Act are further restricted to utilizing the property for uses that are compatible with the Williamson Act. Any further development of surrounding property would be subject to a discretionary land use permit, which would require environmental review and a public hearing. The A-2-40 zoning district does allow for agriculturally related uses when a use permit is obtained, which is a discretionary action. For any changes to the zoning or General Plan land use designations of surrounding property, consistency with the goals, objectives, and policies of the various elements of the General Plan must be evaluated when considering the discretionary request. Rezones may be approved without a change in the General Plan designation if the proposed uses are found to be agriculturally-related uses or for uses of a demonstrably unique character, which due to specific agricultural needs or to their transportation needs or to needs that can only be satisfied in the agriculture designation, may be properly located within areas designated as “agricultural” on the General Plan. Any non-agriculturally related uses would require an amendment to the General Plan and would be subject to meeting the findings required for agricultural land conversion which includes finding: the proposal is consistent with the goals and policies of the General Plan; there is evidence on the record to show a demonstrated need for the proposed project based on population projections, past growth rates, and other pertinent data; that no feasible alternative site exists in areas already designated for the proposed uses; that approval of

the proposal will not constitute a part of, or encourage, piecemeal conversion of a larger agricultural area to non-agricultural uses, and will not be growth-inducing (as used in the California Environmental Quality Act); that the proposed project is designed to minimize conflict and will not interfere with agricultural operations on surrounding agricultural lands or adversely affect agricultural water supplies; that there is adequate and necessary public services and facilities are available or will be made available as a result of the development; and that the design of the proposed project has incorporated all reasonable measures, as determined during the CEQA review process, to mitigate impacts to agricultural lands, fish and wildlife resources, air quality, water quality and quantity, or other natural resources. There are several other General Plan policies that protect agricultural areas of the county and reserve its use for agriculture or for uses closely related to agriculture. One such policy Measure E, which was approved by majority vote in February of 2008, requires that re-designation or rezoning of land from agricultural/open space to residential use shall require approval by a majority vote of the County voters at a general or special local election. Another policy requires that any conversion of agricultural land to residential purposes provide a permanent agricultural easement in a ratio of 1:1. Cumulative impacts from the proposed project on the surrounding area and the County are considered to be less-than significant. With the exception of the additional wine tanks, shallow checks, and the new driveway, the development included in the project was previously approved by the Board of Supervisors in 2016 and the environmental review prepared for that development found that the Mandatory Findings of Significance were less-than significant.

Mitigation: None.

References: Initial Study; Initial Study and Mitigation Monitoring Plan prepared for Rezone Application No. PLN2016-0066 – Bronco Wine Company, dated March 22, 2017; Rezone Application No. PLN2016-0066 – Bronco Wine Company; Application information; Stanislaus County Zoning Ordinance; and the Stanislaus County General Plan and Support Documentation¹.

¹Stanislaus County General Plan and Support Documentation adopted in August 23, 2016, as amended. **Housing Element** adopted on April 5, 2016.

Stanislaus County
Planning and Community Development

1010 10th Street, Suite 3400
Modesto, CA 95354

Phone: (209) 525-6330
Fax: (209) 525-5911

Mitigation Monitoring Plan

Adapted from CEQA Guidelines sec. 15097 Final Text, January 1, 2020

March 23, 2021

- | | |
|--|--|
| 1. Project title and location: | Rezone and Williamson Act Cancellation
Application No. PLN2019-0061 – Bronco Wine
Company

The project site is located at 800 E. Keyes Road
and 6342 Bystrum Road, east of Crows Landing
Road, west of State Highway 99, south of the City
of Ceres. APNs: 041-046-012, 041-046-013, and
041-046-022 |
| 2. Project Applicant name and address: | Bronco Wine Company
6342 Bystrum Road
Ceres, CA 95307 |
| 3. Contact person at County: | Kristin Doud, Principal Planner (209) 525-6330 |

MITIGATION MEASURES AND MONITORING PROGRAM:

List all Mitigation Measures by topic as identified in the Mitigated Negative Declaration and complete the form for each measure.

XVII. TRANSPORTATION/TRAFFIC

No. 1 Mitigation Measure:	Prior to issuance of a Certificate of Occupancy for Building "P", the applicant shall submit improvement plans for a new driveway along the eastern boundary of the project site to safely access Keyes Road at the intersection of Morgan Road to the Stanislaus County Department of Public Works for review and approval. The County shall apply and be responsible for any applicable utility relocations. Construction of the driveway shall be completed within 180 days of completion of the utility pole relocation. Any other new driveway constructed along Keyes Road shall be limited to right-in/right-out access to facilitate safe ingress and egress to the site. Driveway location, design, and improvement plans shall be reviewed and approved by the Stanislaus County Department of Public Works.
---------------------------	--

Who Implements the Measure:	Operator/property owner
-----------------------------	-------------------------

When should the measure be implemented:	New driveway at intersection of Keyes Road and Morgan Road - Improvement plans to be submitted prior to issuance of a Certificate of Occupancy for Building "P". Any other new driveway – On-going/Upon request by owner/operator
---	--

When should it be completed:	New driveway at intersection of Keyes Road and Morgan Road - Shall be constructed within 180 days of completion of utility pole relocation. Any other new driveway – On-going/Upon request by owner/operator
Who verifies compliance:	Stanislaus County Department of Public Works
Other Responsible Agencies:	Stanislaus County Planning and Community Development Department

I, the undersigned, do hereby certify that I understand and agree to be responsible for implementing the Mitigation Program for the above listed project.

Signature on file.

Person Responsible for Implementing
Mitigation Program

March 23, 2021






Date

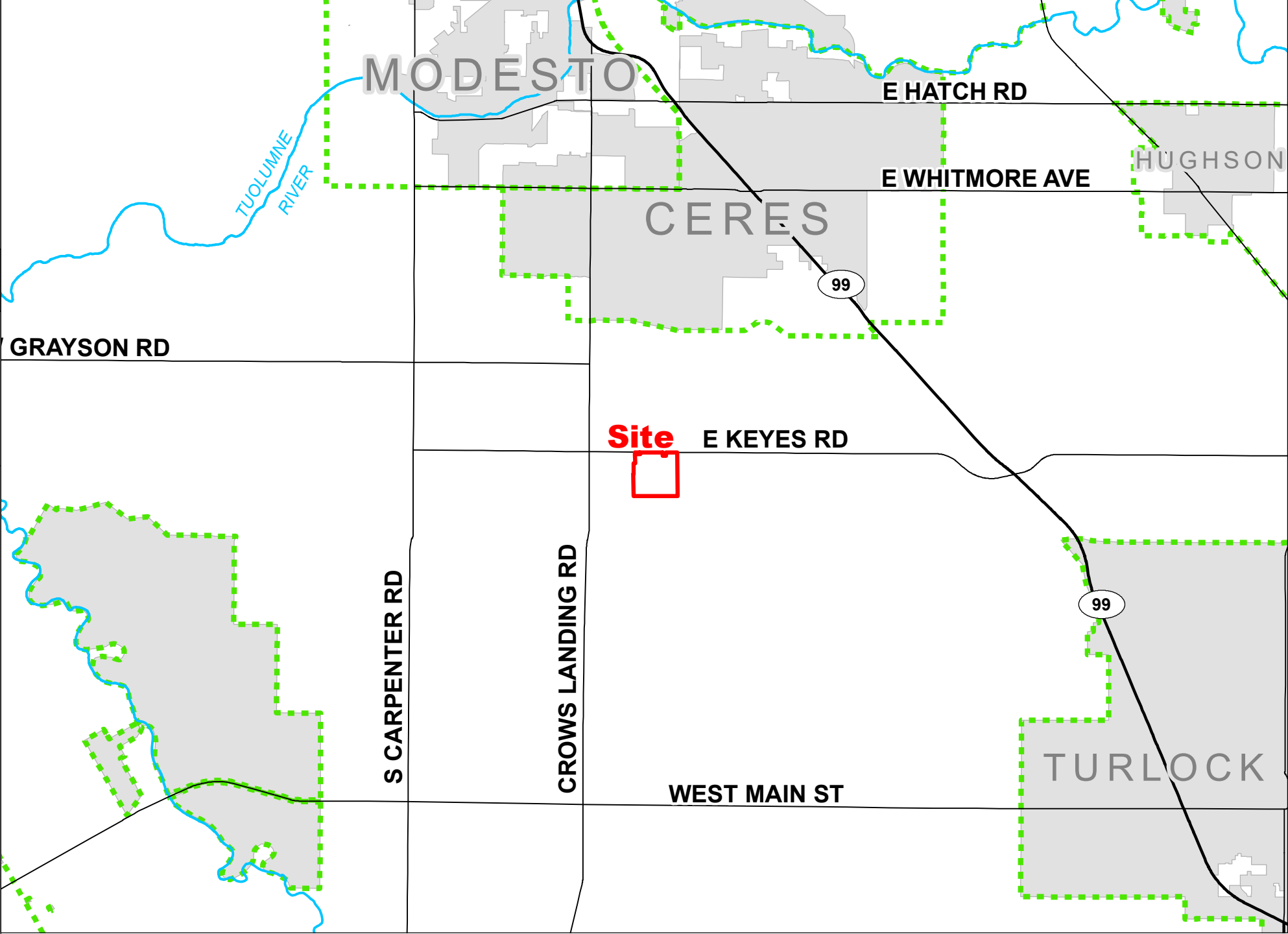
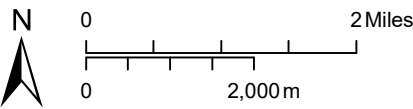
BRONCO WINERY GROUP

**WA-CAN REZ
PLN2019-0061**

AREA MAP

LEGEND

-  Project Site
-  Sphere of Influence
-  City
-  Road
-  River








BRONCO WINERY GROUP

WA-CAN REZ
PLN2019-0061

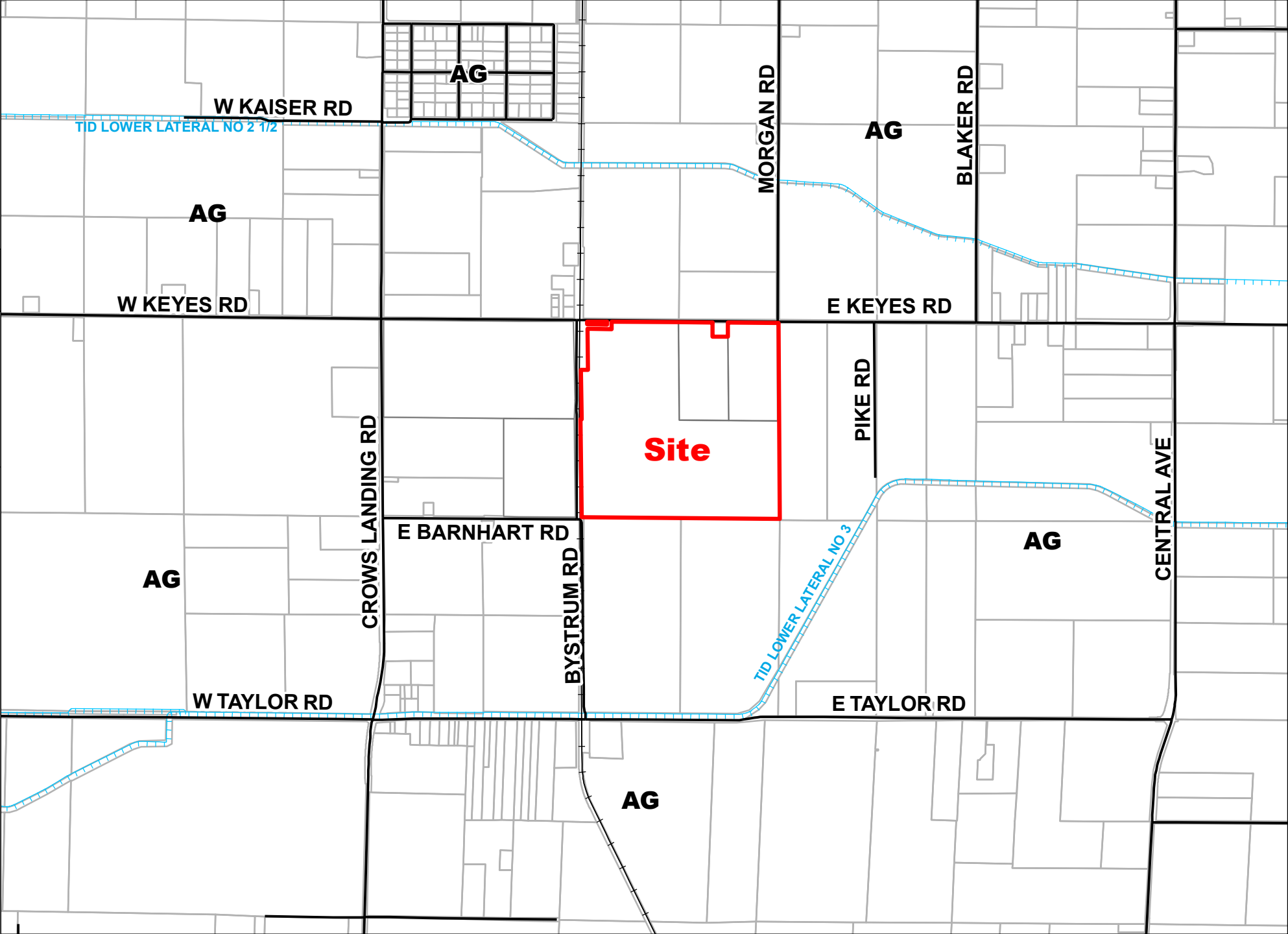
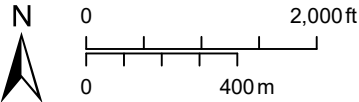
GENERAL PLAN MAP

LEGEND

-  Project Site
-  Parcel
-  Road
-  Railroad
-  Canal

General Plan

-  Agriculture








BRONCO WINERY GROUP



WA-CAN REZ
PLN2019-0061

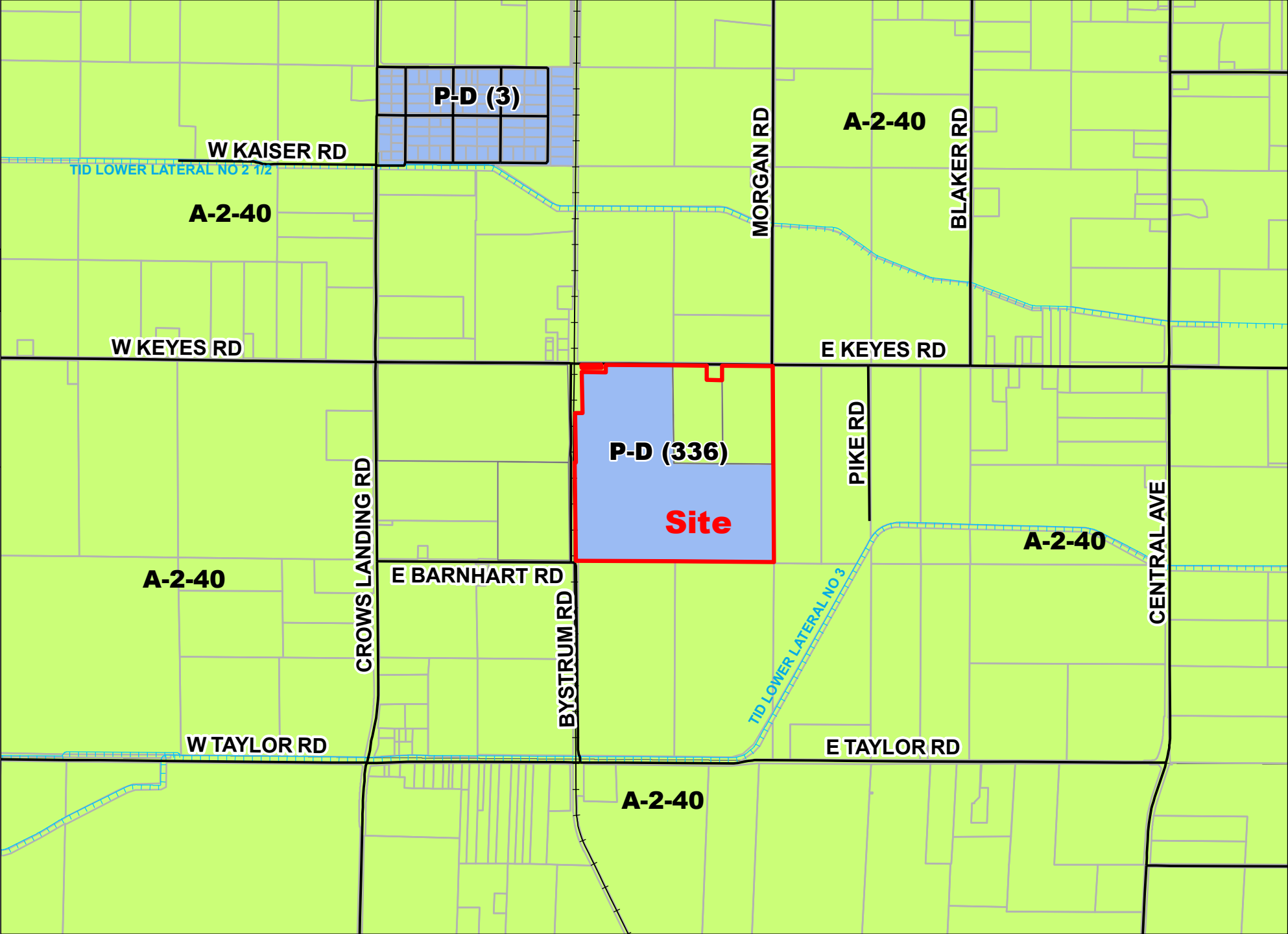
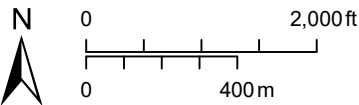
ZONING MAP

LEGEND

-  Project Site
-  Parcel
-  Road
-  Railroad
-  Canal

Zoning Designation

-  **A-2-40** General Agriculture 40 Acre
-  **P-D** Planned Development







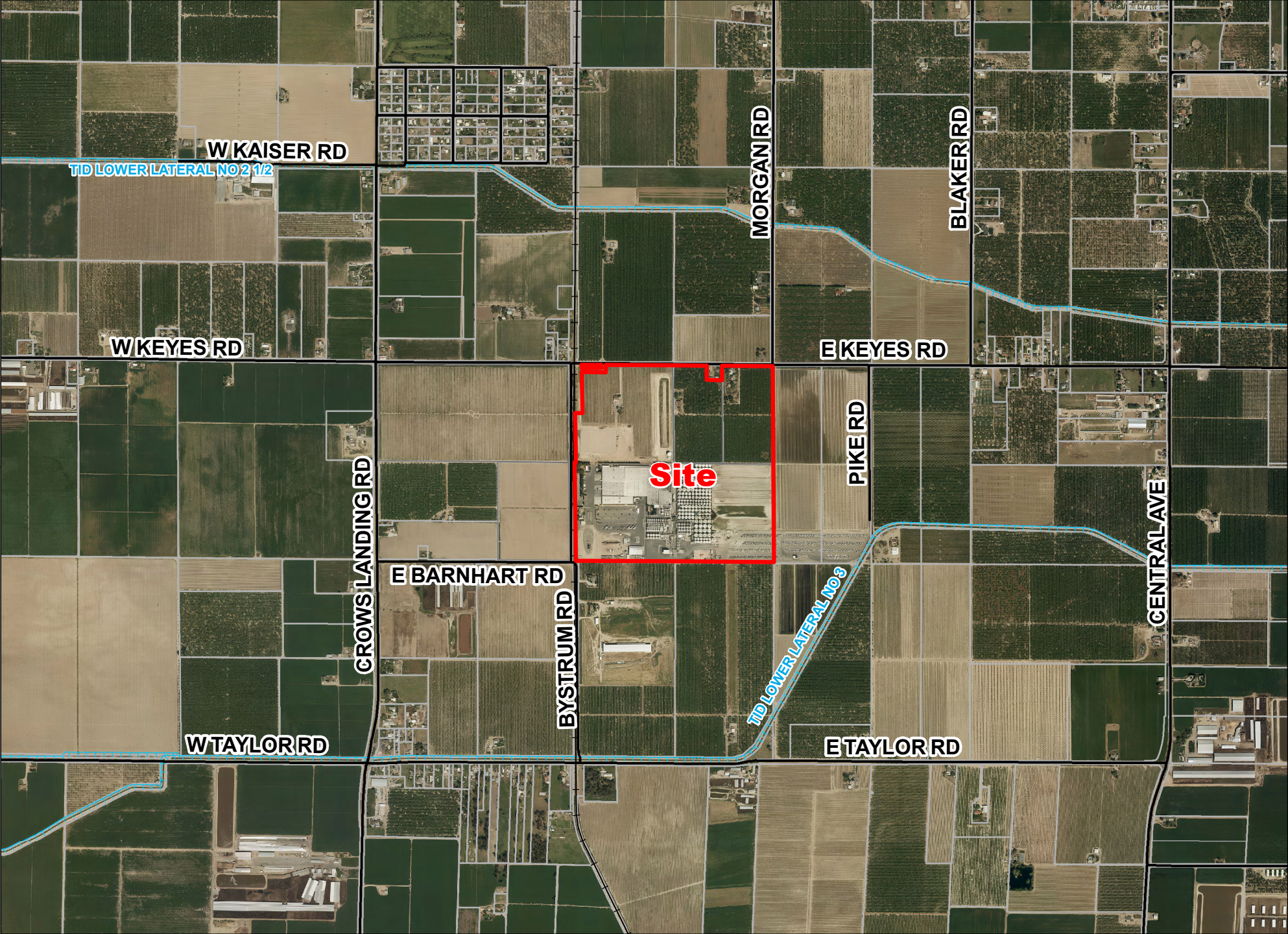
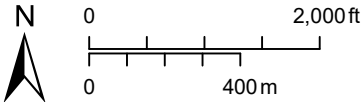
BRONCO WINERY GROUP

WA-CAN REZ
PLN2019-0061

2017 AERIAL AREA MAP

LEGEND

-  Project Site
-  Road
-  Railroad
-  Canal






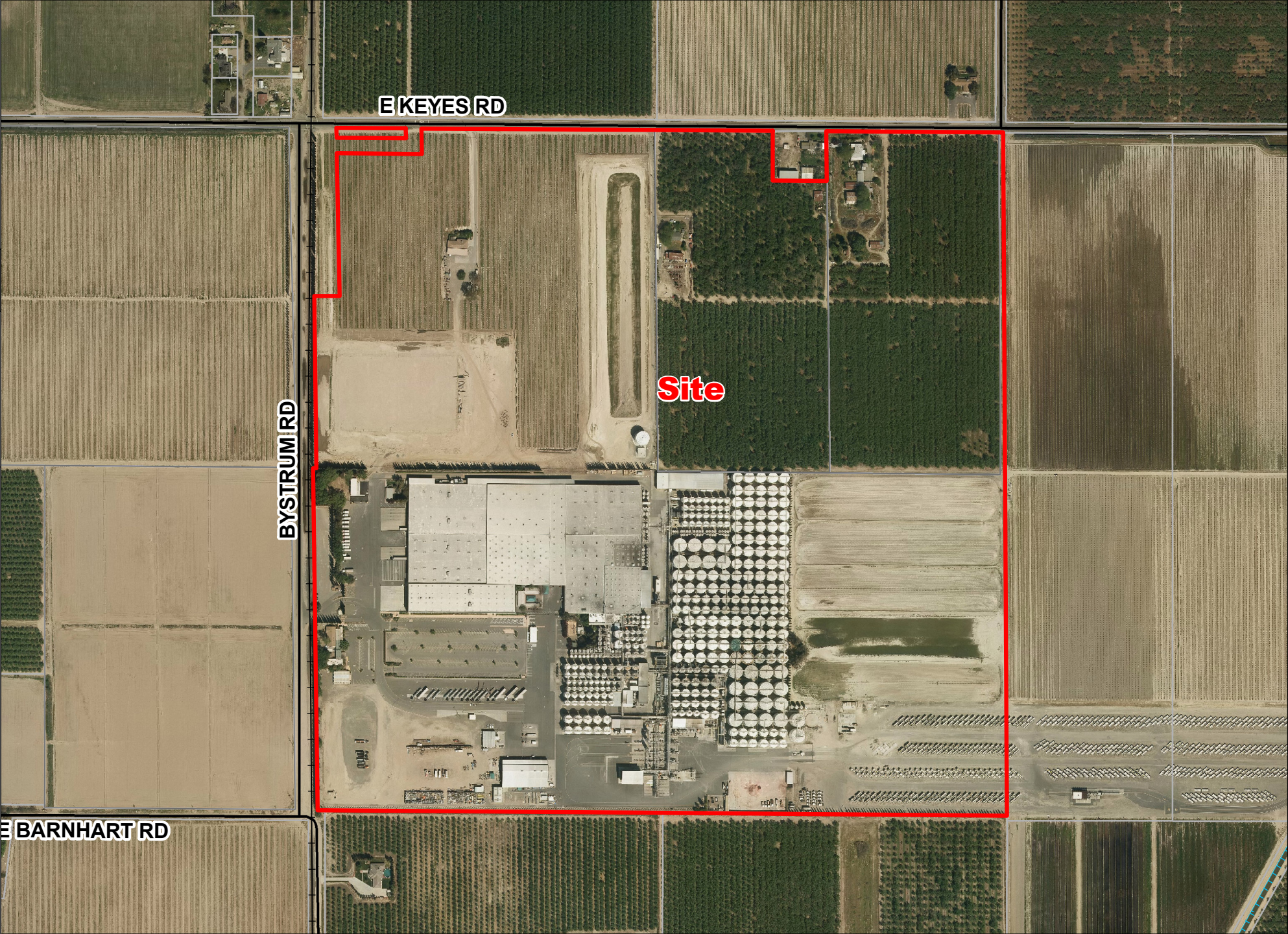
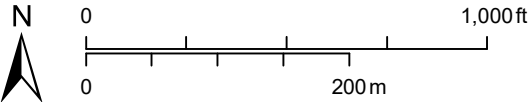
BRONCO WINERY GROUP

WA-CAN REZ
PLN2019-0061

2017 AERIAL SITE MAP

LEGEND

-  Project Site
-  Road
-  Railroad








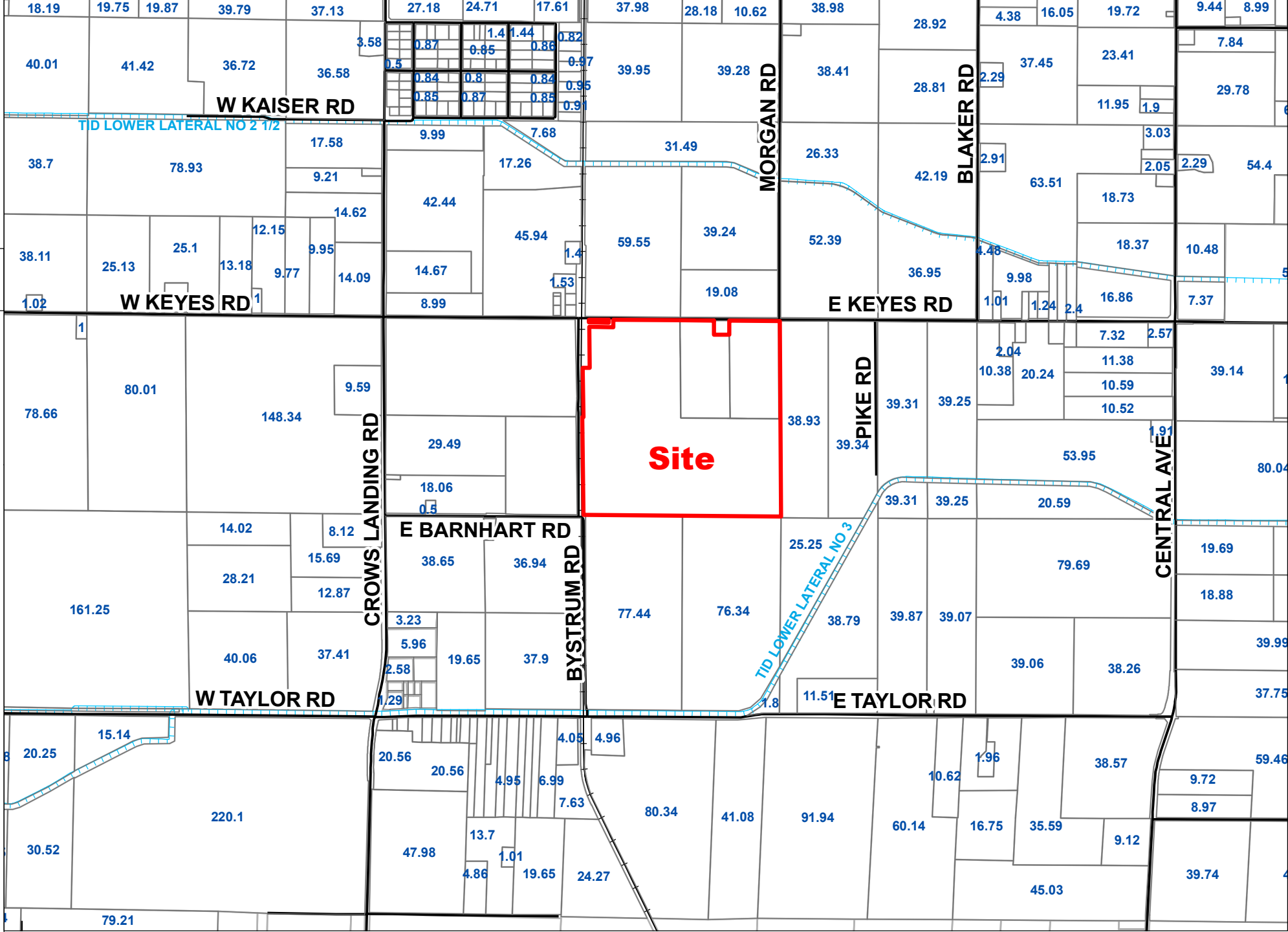
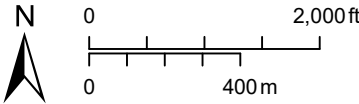
BRONCO WINERY GROUP

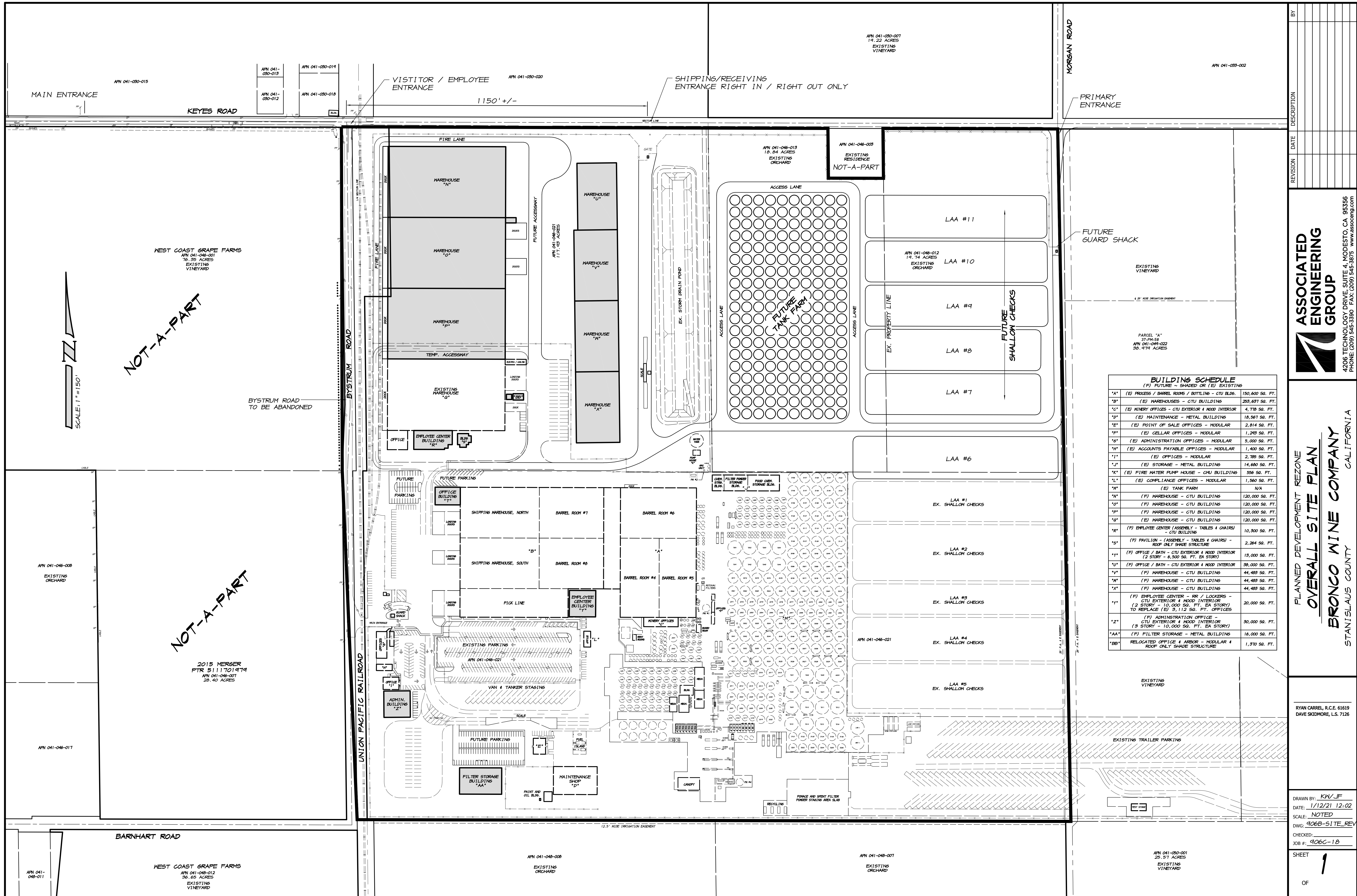
WA-CAN REZ
PLN2019-0061

ACREAGE MAP

LEGEND

-  Project Site
-  Parcel
-  Road
-  Railroad
-  Canal





BUILDING SCHEDULE		
(F) FUTURE ~ SHADED OR (E) EXISTING		
A	(E) PROCESS / BARREL ROOMS / BOTTLING - GTU BLDG.	150,600 SQ. FT.
B	(E) WAREHOUSES - GTU BUILDING	293,631 SQ. FT.
C	(E) MINERY OFFICES - GTU EXTERIOR & WOOD INTERIOR	4,718 SQ. FT.
D	(E) MAINTENANCE - METAL BUILDING	18,567 SQ. FT.
E	(E) POINT OF SALE OFFICES - MODULAR	2,814 SQ. FT.
F	(E) CELLAR OFFICES - MODULAR	1,293 SQ. FT.
G	(E) ADMINISTRATION OFFICES - MODULAR	5,000 SQ. FT.
H	(E) ACCOUNTS PAYABLE OFFICES - MODULAR	1,400 SQ. FT.
I	(E) OFFICES - MODULAR	2,795 SQ. FT.
J	(E) STORAGE - METAL BUILDING	14,680 SQ. FT.
K	(E) FIRE WATER PUMP HOUSE - GTU BUILDING	956 SQ. FT.
L	(E) COMPLIANCE OFFICES - MODULAR	1,560 SQ. FT.
M	(E) TANK FARM	N/A
N	(F) WAREHOUSE - GTU BUILDING	120,000 SQ. FT.
O	(F) WAREHOUSE - GTU BUILDING	120,000 SQ. FT.
P	(F) WAREHOUSE - GTU BUILDING	120,000 SQ. FT.
Q	(E) WAREHOUSE - GTU BUILDING	120,000 SQ. FT.
R	(F) EMPLOYEE CENTER (ASSEMBLY - TABLES & CHAIRS) - GTU BUILDING	10,300 SQ. FT.
S	(F) PAVILION - (ASSEMBLY - TABLES & CHAIRS) - ROOF ONLY SHADE STRUCTURE	2,264 SQ. FT.
T	(F) OFFICE / BATH - GTU EXTERIOR & WOOD INTERIOR (2 STORY - 6,500 SQ. FT. EA STORY)	13,000 SQ. FT.
U	(F) OFFICE / BATH - GTU EXTERIOR & WOOD INTERIOR	30,000 SQ. FT.
V	(F) WAREHOUSE - GTU BUILDING	44,483 SQ. FT.
W	(F) WAREHOUSE - GTU BUILDING	44,483 SQ. FT.
X	(F) WAREHOUSE - GTU BUILDING	44,483 SQ. FT.
Y	(F) EMPLOYEE CENTER - RR / LOCKERS - GTU EXTERIOR & WOOD INTERIOR (2 STORY - 10,000 SQ. FT. EA STORY) TO REPLACE (E) 3,112 SQ. FT. OFFICES	20,000 SQ. FT.
Z	(F) ADMINISTRATION OFFICE - GTU EXTERIOR & WOOD INTERIOR (3 STORY - 10,000 SQ. FT. EA STORY)	30,000 SQ. FT.
AA	(F) FILTER STORAGE - METAL BUILDING	16,000 SQ. FT.
BB	RELOCATED OFFICE & ARBOR - MODULAR & ROOF ONLY SHADE STRUCTURE	1,370 SQ. FT.

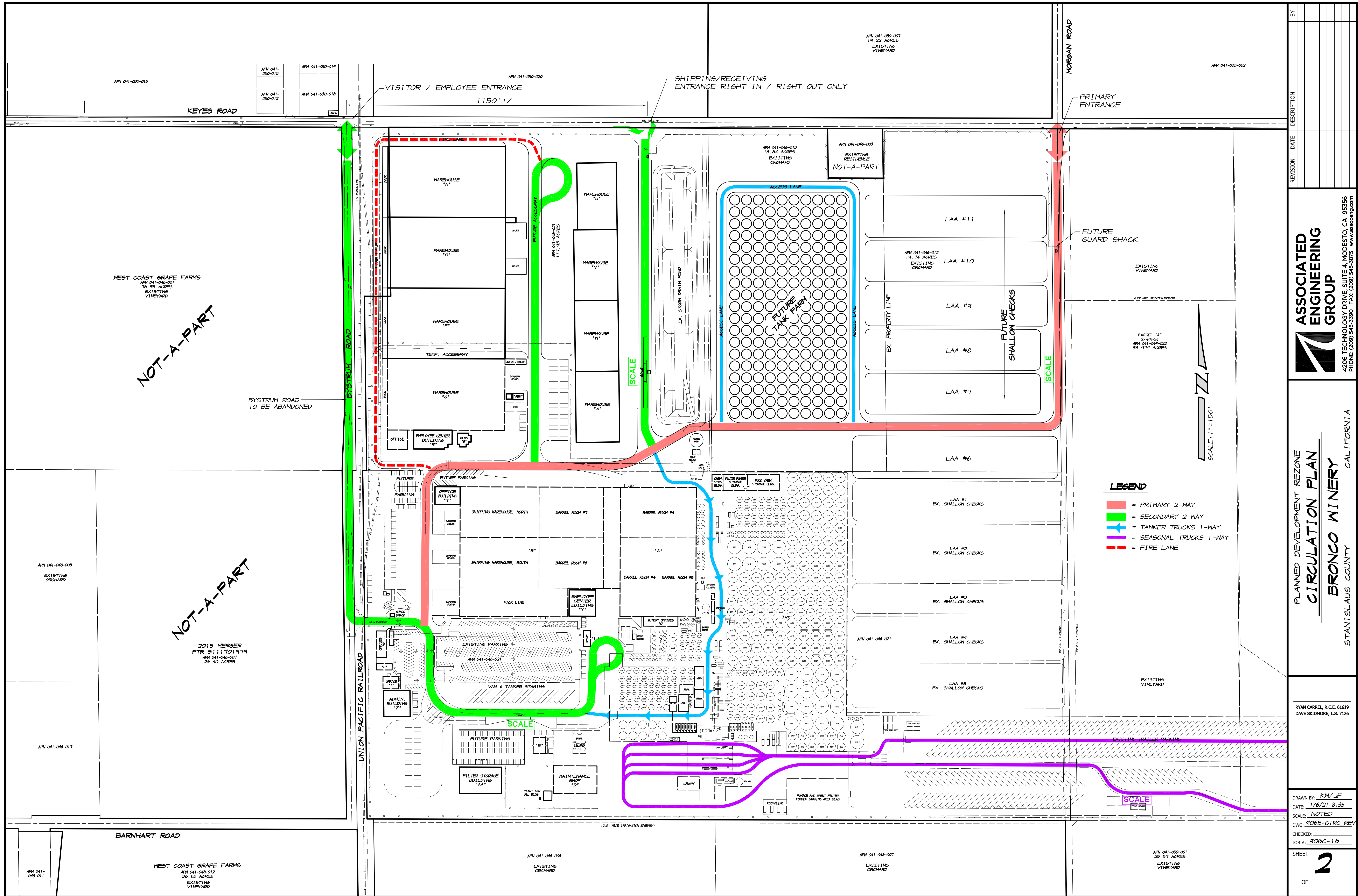
ASSOCIATED
ENGINEERING
GROUP

4206 TECHNOLOGY DRIVE, SUITE 4, MODESTO, CA 95356
PHONE (209) 345-3390 FAX (209) 345-3675 www.aecgroup.com

PLANNED DEVELOPMENT REZONE
OVERALL SITE PLAN
BRONCO WINE COMPANY
STANISLAUS COUNTY CALIFORNIA

RYAN CARREL, R.C.E. 61619
DAVE SKIDMORE, L.S. 7126

DRAWN BY: KW/JF
DATE: 1/12/21 12:02
SCALE: NOTED
DWG: 906B-SITE_REV
CHECKED:
JOB #: 906C-18
SHEET
1
OF



BY	
DESCRIPTION	
DATE	
REVISION	
<div>ASSOCIATED ENGINEERING GROUP</div> <div>4206 TECHNOLOGY DRIVE, SUITE 4, MODESTO, CA 95356 PHONE: (209) 545-3390 FAX: (209) 545-3875 www.aecgroup.com</div>	
<div>PLANNED DEVELOPMENT REZONE CIRCULATION PLAN</div> <div>BRONCO WINERY STANISLAUS COUNTY CALIFORNIA</div>	
RYAN CARREL, R.C.E. 61619 DAVE SKIDMORE, L.S. 7126	
DRAWN BY: <u>KW/JF</u> DATE: <u>1/6/21 8:35</u> SCALE: <u>NOTED</u> DWG: <u>906B-CIRC_REV</u> CHECKED: JOB #: <u>906C-18</u>	
SHEET	2
OF	

Mitchell Air Quality Consulting

Air Quality Analysis Report Bronco Winery Expansion Project County of Stanislaus, California

Prepared for:
Bronco Wine Company
6342 Bystrum Road
Ceres, CA 95307
209.538.8074
Contact: John Franzia

Prepared by:
Mitchell Air Quality Consulting
1164 E. Decatur Avenue
Fresno, CA 93720
559.246.3732
Contact: Dave Mitchell, Senior Air Quality Scientist

June 25, 2019

Mitchell Air Quality Consulting

Air Quality Analysis Report Bronco Winery Expansion Project County of Stanislaus, California

Prepared for:	Prepared by:
Bronco Wine Company	Mitchell Air Quality Consulting
6342 Bystrum Road	1164 E. Decatur Avenue
Ceres, CA 95307	Fresno, CA 93720
209.538.8074	559.246.3732
Contact: John Franzia	Contact: Dave Mitchell, Senior Air Quality Scientist

June 25, 2019

INTENTIONALLY LEFT BLANK

Table of Contents

Acronyms and Abbreviations	v
Section 1: Executive Summary	1
1.1— Purpose and Methods of Analysis	1
1.2— Project Description	1
1.3— Summary of Analysis Results	1
1.4— Standard Conditions and Mitigation Measures Applied to the Project	2
Section 2: Air Quality Setting	9
2.1— Environmental Setting.....	9
2.2— Regulatory Setting.....	10
2.3— Existing Air Quality Conditions.....	18
2.4— Air Quality Plans and Regulations	23
Section 3: Modeling Parameters and Assumptions	33
3.1— Model Selection and Guidance	33
3.2— Air Pollutants Assessed	33
3.3— Construction Modeling Assumptions.....	34
3.4— Operation	35
Section 4: Air Quality Impact Analysis	37
4.1— CEQA Guidelines	37
4.2— Impact Analysis	37
Section 5: References	53
 Appendix A: Modeling Assumptions and Output	
Appendix B: San Joaquin Valley Air Pollution Control District Amicus Brief on Friant Ranch Supreme Court Decision	

List of Tables

Table 1: Description of Air Pollutants	12
Table 2: Air Quality Monitoring Summary	18
Table 3: Air Quality Index and Health Effects from Ozone	20
Table 4: Air Quality Index and Health Effects of Particulate Pollution.....	21
Table 5: San Joaquin Valley Air Basin Attainment Status.....	22
Table 6: Construction Air Pollutant Emissions (Annual)	41
Table 7: Operational Air Pollutant Emissions (2020)	42
Table 8: Maximum Daily Air Pollutant Emissions during Construction	46
Table 9: Maximum Daily Air Pollutant Emissions during Operations	46
Table 10: Prioritization Tool Health Risk Screening Results	48
Table 11: Screening Levels for Potential Odor Sources	51

List of Figures

Figure 1: Regional Location Map.....	3
Figure 2: Local Vicinity Map	5
Figure 3: Site Plan.....	7
Figure 4: San Joaquin Valley NO _x Emissions Forecast	27

ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AB	Assembly Bill
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CO	carbon monoxide
District	San Joaquin Valley Air Pollution Control District
DPM	diesel particulate matter
EMFAC	EMission FACtors Model
EPA	United States Environmental Protection Agency
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
MAQC	Mitchell Air Quality Consulting
MMBtu	million British thermal units
NO_x	nitrogen oxides
PM_{10}	particulate matter less than 10 microns in diameter
$\text{PM}_{2.5}$	particulate matter less than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
ROG	reactive organic gases
SB	Senate Bill
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_x	sulfur oxides
VOC	volatile organic compounds

INTENTIONALLY LEFT BLANK

SECTION 1: EXECUTIVE SUMMARY

1.1—Purpose and Methods of Analysis

The following air quality and greenhouse gas (GHG) analysis was prepared to evaluate whether the estimated criteria air pollutant and GHG emissions generated from the Bronco Winery Expansion Project (project) would cause significant impacts to air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) for quantification of emissions and evaluation of potential impacts to air resources (SJVAPCD 2015a).

1.2—Project Description

The project site was rezoned in 2017 from Planned Development P-D (6) and P-D (321) zones to a new Planned Development (P-D) zone to allow for the expansion of an existing winery and bottling facility developed on 82.15 acres of the project site. The expansion includes 14 buildings, totaling 743,013 square feet, the construction of two rail spurs, and the addition of a fleet of 53-foot trucks and tanker trucks.

The project is proposed to be constructed in phases. Phase 1 includes construction of a 120,000-square-foot warehouse to be utilized for the storage of bottled wine stock, construction of two rail spurs to be utilized for deliveries, a fleet of 53-foot trucks and tanker trucks, and fencing around the perimeter of the new warehouse. Phase 1 was approved separately, but with a condition to perform additional air quality analysis prior to proceeding with later phases. Phase 1 construction has been completed and the new facilities are operational. The timing of future phases will depend on market demand, but for analysis purposes all remaining development is assumed to be constructed at once. The air quality analysis for project operations includes the total impact of all phases including the already completed Phase 1.

The rail spur allows a substantial increase in shipping to be handled by rail instead of new truck trips. Rail service is expected 4 days per week with 5 train cars per pick up for a total of 20 train cars per week. The project traffic study indicates a net increase in trucks accessing the site is 25 per day or 50 round trips.

The project would increase full-time employment at the facility from 396 to 426 or 30 employees at buildout. No increase in seasonal employment is anticipated with the project.

The project's regional vicinity location is shown in Figure 1; an aerial view of the local vicinity is provided in Figure 2; and the site plan is provided in Figure 3.

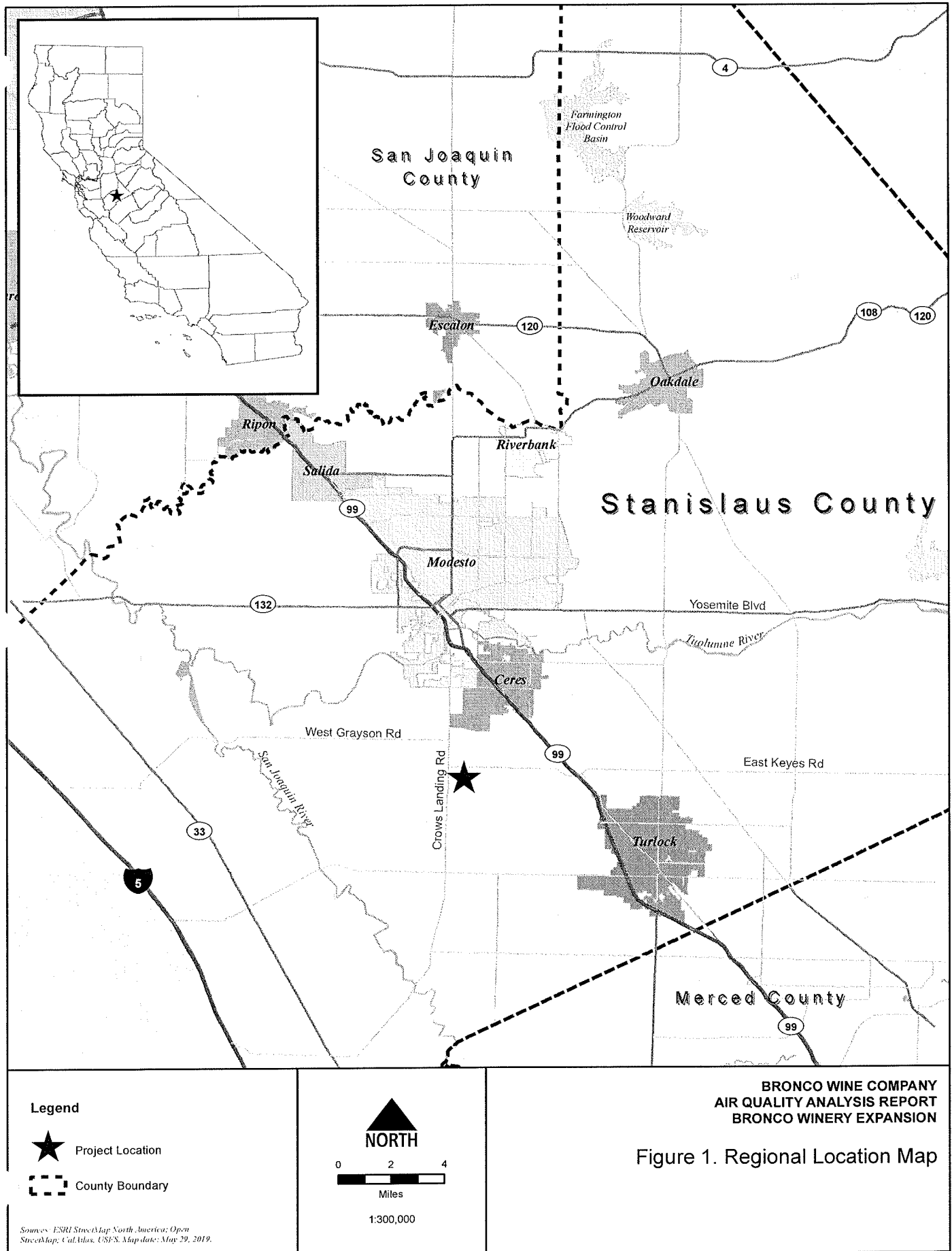
1.3—Summary of Analysis Results

The following is a summary of the analysis results. As shown below, the project would result in less than significant impacts for all air quality and GHG impact criteria analyzed.

- Impact AIR-1:** The project would not conflict with or obstruct implementation of the applicable air quality plan. **Less than significant impact.**
- Impact AIR-2:** The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). **Less than significant impact.**
- Impact AIR-3:** The project would not expose sensitive receptors to substantial pollutant concentrations. **Less than significant impact.**
- Impact AIR-4:** The project would not create objectionable odors affecting a substantial number of people. **Less than significant impact.**

1.4—Standard Conditions and Mitigation Measures Applied to the Project

No mitigation measures beyond compliance with regulation are required.



INTENTIONALLY LEFT BLANK



Legend

- Project Boundary
- Canal



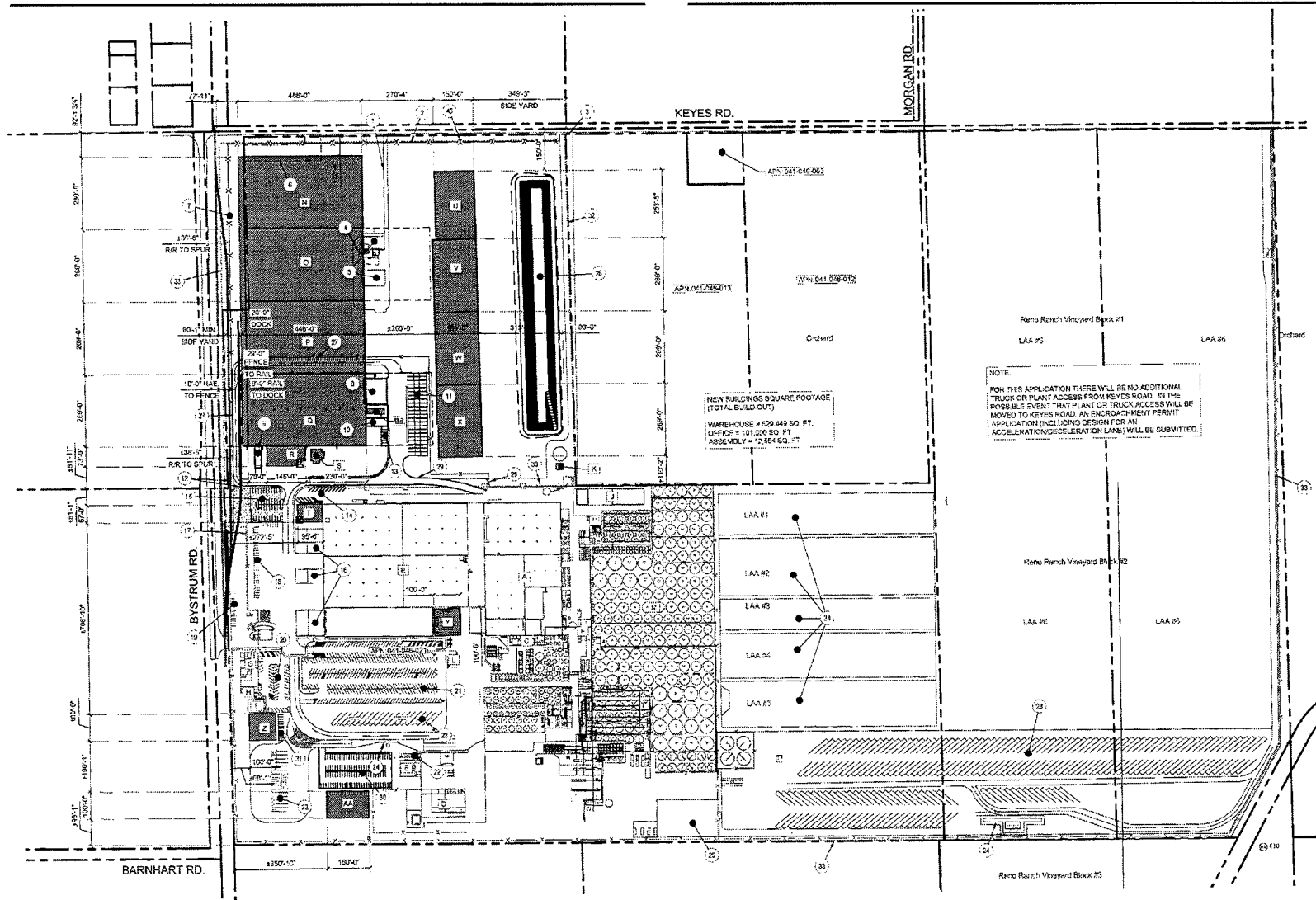
0 1,000 2,000
Feet

BRONCO WINE COMPANY AIR QUALITY ANALYSIS REPORT BRONCO WINERY EXPANSION

Figure 2. Local Vicinity Map

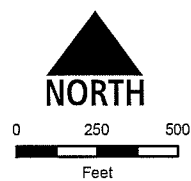
Source: Fresno County; USGS NHD; ArcGIS Online
World Imagery Map Service. Map date: May 31, 2019.

INTENTIONALLY LEFT BLANK



**BRONCO WINE COMPANY
AIR QUALITY ANALYSIS REPORT
BRONCO WINERY EXPANSION**

Figure 3. Site Plan



INTENTIONALLY LEFT BLANK

SECTION 2: AIR QUALITY SETTING

2.1—Environmental Setting

Air quality impacts are both local and regional. Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The project is located in the San Joaquin Valley Air Basin, which experiences some of the challenging environmental conditions for air quality in the nation. The following section describes these conditions as they pertain to the Air Basin. The information in this section is primarily from the District's GAMAQI (SJVAPCD 2015a).

2.1.1 - San Joaquin Valley Air Basin

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants, and can channel air from upwind areas that transports pollutants to downwind areas. The SJVAPCD covers the entirety of the Air Basin. The Air Basin is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The climate is important for air quality because of differences in the atmosphere's ability to trap pollutants close to the ground, which creates adverse air quality; inversely, the atmosphere's ability to rapidly disperse pollutants over a wide area prevents high concentrations from accumulating under different climatic conditions. The Air Basin has an "inland Mediterranean" climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be a catalyst in the formation of some air pollutants (such as ozone); the Air Basin averages over 260 sunny days per year.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the Air Basin form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Mojave Desert Air Basin portion of Kern County. As the wind moves through the Air Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high

pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong, low-level temperature inversions and very stable air conditions, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of $PM_{2.5}$ and PM_{10} .

2.2—Regulatory Setting

Air pollutants are regulated to protect human health and for secondary effects such as visibility and building soiling. The Clean Air Act of 1970 tasks the United States Environmental Protection Agency (EPA) with setting air quality standards. The State of California also sets air quality standards, which are in some cases more stringent than federal standards, in addition to addressing additional pollutants. The following section describes these federal and state standards and the health effects of the regulated pollutants.

2.2.1 - Clean Air Act

Congress established much of the basic structure of the Clean Air Act (CAA) in 1970, and made major revisions in 1977 and 1990. Six common air pollutants (also known as criteria pollutants) are addressed in the CAA: particulate matter, ground-level ozone, carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x), and lead. The EPA labels these pollutants as criteria air pollutants because they are regulated by developing human health-based and/or environmentally based criteria (science-based guidelines), which sets permissible levels. The set of limits based on human health are called primary standards. Another set of limits intended to prevent environmental and property damage are called secondary standards (EPA 2014). The federal standards are called National Ambient Air Quality Standards (NAAQS). The air quality standards provide benchmarks for determining whether air quality is healthy at specific locations and whether development activities will cause or contribute to a violation of the standards. The criteria pollutants are:

- Ozone
- Nitrogen dioxide (NO_2)
- Lead
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the EPA is tasked with updating the standards as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health (ARB 2016).

2.2.2 - California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the federal CAA at the time. California's air quality problems were and continue to be some of the most severe in the nation, and required additional actions beyond the federal mandates. The California Air Resources Board (ARB) administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The 10 state air pollutants are the six federal standards listed above as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The EPA authorized California to adopt its own regulations for motor vehicles and other sources that are more stringent than similar federal

regulations implementing the CAA. Generally, the planning requirements of the CCAA are less stringent than the federal CAA; therefore, consistency with the CAA will also demonstrate consistency with the CCAA.

2.2.3 - Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate hazardous air pollutants (HAP). Section 112 of the Clean Air Act lists 187 hazardous air pollutants to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. ARB and local air districts regulate TACs and HAPs in California.

2.2.4 - Air Pollutant Description and Health Effects

The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 1.

Table 1: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NO _x , and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO _x) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.070 ppm ^f			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8 Hour	9.0 ppm	9 ppm			
Nitrogen dioxide ^b (NO ₂)	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contribution to atmospheric discoloration; increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides— NO _x (NO, NO ₂ , NO ₃ , N ₂ O, N ₂ O ₃ , N ₂ O ₄ , and N ₂ O ₅). NO _x is a precursor to ozone, PM ₁₀ , and PM _{2.5} formation. NO _x can react with compounds to form nitric acid and related small particles and result in PM-related health effects.	NO _x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide (NO ₂) forms quickly from NO _x emissions. NO ₂ concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide ^c (SO ₂)	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO _x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM ₁₀ .	Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hour	—	0.5 ppm			
	24 Hour	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM ₁₀)	24 Hour	50 µg/m ³	150 µg/m ³	<ul style="list-style-type: none"> Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravates existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death. 	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM ₁₀ refers to particulate matter that is between 2.5 and 10 microns in diameter (1 micron is one-millionth of a meter). PM _{2.5} refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal; and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m ³	—			
Particulate matter (PM _{2.5})	24 Hour	—	35 µg/m ³			
	Annual	12 µg/m ³	12.0 µg/m ³			
Visibility-reducing particles	8 Hour	See note below ^d				

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hour	25 µg/m ³	—	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) degradation of visibility; (f) Property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO ₄ ²⁻ . Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead ^e	30-day	1.5 µg/m ³	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQ.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m ³			
	Rolling 3-month average	—	0.15 µg/m ³			
Vinyl chloride ^e	24 Hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H ₂ S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur-containing fuels (oil and coal).
Volatile organic compounds (VOC)		There are no state or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROG), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM ₁₀ and lower visibility.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk	DPM is a source of PM _{2.5} —diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	
<p>Notes:</p> <p>ppm = parts per million (concentration) $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter</p> <p>^a Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p>^b To attain the 1-hour NO_2 national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb) (0.100 ppm).</p> <p>^c On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.</p> <p>^d Visibility-reducing particles: In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.</p> <p>^e The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.</p> <p>^f The EPA Administrator approved a revised 8-hour ozone standard of 0.07 ppb on October 1, 2015. The new standard will go into effect 60 days after publication of the Final Rule in the Federal Register. The Final Rule was published in the Federal Register on October 26, 2015 and became effective on December 28, 2015.</p> <p>Source of effects, properties, and sources: South Coast Air Quality Management District 2007; California Environmental Protection Agency 2002; California Air Resources Board 2009a; U.S. Environmental Protection Agency 2003, 2009, 2010, 2011, 2012a and 2012b; National Toxicology Program 2011 and 2016.</p> <p>Source of standards: California Air Resources Board 2013a.</p>						

Several pollutants listed in Table 1 are not addressed in this analysis. Analysis of lead is not included in this report because no new sources of lead emissions are anticipated with the project. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed as PM₁₀ and PM_{2.5}. No components of the project would result in vinyl chloride or hydrogen sulfide emissions in any substantial quantity.

Toxic Air Contaminants Health Effects

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data. The 10 TACs are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increased risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause a cough, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on: engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of DPM.

Health risks attributable to the top 10 TACs listed above are available from the ARB as part of its California Almanac of Emissions and Air Quality—2009 Edition (ARB 2009b). As shown therein for data collected at the First Street air monitoring station in Fresno, cancer risks attributable to all of the listed TACs above with the exception of DPM have declined about 70 percent from the mid-1990s to 2007. Risks associated with DPM emissions are provided only for the year 2000 and have not been updated in the Almanac. Although more recent editions of the Almanac do not provide estimated risk, they do provide emission inventories for DPM for later years. The 2013 Almanac provides emission inventory trends for DPM from 2000 through 2035. The same Almanac reports that DPM emissions were reduced in the SJVAB from 16 tons per day in 2000 to 11 tons per day in 2010, a 31 percent decrease. DPM emissions in the San Joaquin Valley are projected to decrease to six tons per day by 2015, a 62 percent reduction from year 2000 levels. ARB predicts a reduction to

three tons per day by 2035, which would be an 81 percent reduction from year 2000 levels. Continued implementation of the ARB's Diesel Risk Reduction Plan is expected to provide continued reductions in DPM through 2020 and beyond through regulations on this source (ARB 2013b).

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present.

2.3—Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. Table 2 summarizes 2015 through 2017 published monitoring data, which is the most recent three-year period available. The table displays data from the Modesto-14th Street monitoring station (located approximately 6.4 miles north of the project site), and the S. Minaret Avenue monitoring station (located approximately 8.9 miles southeast of the project site). The data shows that during the past few years, the project area has exceeded the standards for ozone (state and national), PM₁₀ (state), and PM_{2.5} (national). The data in the table reflect the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Stanislaus County or the San Joaquin Valley Air Basin were available for CO or SO₂. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 2: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2015	2016	2017
Ozone ¹	1 Hour	Max 1 Hour (ppm)	0.111	0.105	0.111
		Days > State Standard (0.09 ppm)	5	4	3
Ozone	8 Hour	Max 8 Hour (ppm)	0.093	0.091	0.098
		Days > State Standard (0.07 ppm)	23	21	21
		Days > National Standard (0.070 ppm)	23	21	31
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND

Table 2 (cont.): Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2015	2016	2017
Nitrogen dioxide (NO ₂) ²	Annual	Annual Average (ppm)	0.009	0.009	0.009
	1 Hour	Max 1 Hour (ppm)	0.042	0.0472	0.0586
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide (SO ₂)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hour	Max 24 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse particles (PM ₁₀) ¹	Annual	Annual Average (µg/m ³)	27.0	27.6	31.4
	24 hour	24 Hour (µg/m ³)	85.6	83.5	129.3
		Days > State Standard (50 µg/m ³)	31.1	ID	58.2
		Days > National Standard (150 µg/m ³)	0	0	0
Fine particulate matter (PM _{2.5}) ¹	Annual	Annual Average (µg/m ³)	4	11.1	12.6
	24 Hour	24 Hour (µg/m ³)	44.0	53.3	74.5
		Days > National Standard (35 µg/m ³)	ID	9.0	25.1

Notes:

> = exceed

ppm = parts per million

µg/m³ = micrograms per cubic meter

ID = insufficient data

ND = no data

max = maximum

Bold = exceedance

State Standard = California Ambient Air Quality Standard

National Standard = National Ambient Air Quality Standard

¹ Modesto 814 14th Street monitoring station

² Turlock 1034 S. Minaret Street monitoring station

Source: California Air Resources Board 2017a

The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest of these is comparable with the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air. Table 3 provides a description of the health impacts of ozone at different concentrations.

Table 3: Air Quality Index and Health Effects from Ozone

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI 51–100—Moderate Concentration 55–70 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI 101–150—Unhealthy for Sensitive Groups Concentration 71–85 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI 151–200—Unhealthy Concentration 86–105 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI 201–300—Very Unhealthy Concentration 106–200 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
Source: Air Now 2015.	

The AQI for the 8-hour ozone standard reflects the current NAAQS of 70 parts per billion (ppb). Based on the AQI scale for the 8-hour ozone standard, the project area experienced no days in the last three years that would be categorized as very unhealthy (AQI 201–250), and as many as 65 days that were unhealthy (AQI 151–200) or unhealthy for sensitive groups (AQI 101–150), violating the 70-ppb standard as measured at the Modesto 14th Street monitoring station. The highest reading was 98 parts per billion (ppb) in 2017 (AQI 182), compared with the 105-ppb cutoff point for unhealthy (AQI 200). The most days over the standard were 23 days in 2015.

The other nonattainment pollutant of concern is PM_{2.5}. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 12.1 to 35.4 µg/m³. An AQI of 101 to 150 or 35.5-55.4 µg/m³ is considered unhealthy for sensitive groups. When concentrations reach this amount, it is considered an exceedance of the federal PM_{2.5} standard. The monitoring station nearest the project exceeded the standard on approximately 34 days in the two-year period spanning from 2016 to 2017. People with respiratory or heart disease, the elderly and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. The AQI of 151 to 200 is classified as unhealthy for everyone. This AQI classification is triggered when PM_{2.5} concentration ranges from 55.4 to 150.4 µg/m³. At this concentration, there is increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and in the elderly. People with respiratory or heart disease, the elderly, and children should limit prolonged exertion. Everyone else should reduce prolonged or heavy exertion. The highest concentration recorded at the Modesto 14th Street monitoring station in the last three years was 74.5 µg/m³ (AQI 161) in 2017. At this concentration, increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly, and increased respiratory effects in general population would occur. People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion when the AQI exceeds this level. The relationship of the AQI to health effects is shown in Table 4.

Table 4: Air Quality Index and Health Effects of Particulate Pollution

Air Quality Index/ PM _{2.5} Concentration	Health Effects Description
AQI 51–100—Moderate Concentration 12.1–35.4 µg/m ³	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk. Health Effects Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion. Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.
AQI 101–150—Unhealthy for Sensitive Groups Concentration 35.5–55.4 µg/m ³	Sensitive Groups: Sensitive groups include people with heart or lung disease, older adults, children, and teenagers. Health Effects Statements: Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and the elderly. If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
AQI 151–200—Unhealthy Concentration 55.5–150.4 µg/m ³	Sensitive Groups: Everyone Health Effects Statements: Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population. Cautionary Statements: Sensitive groups: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.

Table 4 (cont.): Air Quality Index and Health Effects of Particulate Pollution

Air Quality Index/ PM _{2.5} Concentration	Health Effects Description
AQI 201–300—Very Unhealthy Concentration 150.5–250.4 µg/m ³	Sensitive Groups: Everyone
	Health Effects Statements: Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.
	Cautionary Statements: Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.

2.3.1 - Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The current attainment designations for the Air Basin are shown in Table 5. The Air Basin is designated as nonattainment for ozone, PM₁₀, and PM_{2.5}.

Table 5: San Joaquin Valley Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone—One Hour	Nonattainment/Severe	No Standard
Ozone—Eight Hour	Nonattainment	Nonattainment/Extreme
Carbon monoxide	Attainment/Unclassified	Merced, Madera, and Kings Counties are unclassified; others are in Attainment
Nitrogen dioxide	Attainment	Attainment/Unclassified
Sulfur dioxide	Attainment	Attainment/Unclassified
PM ₁₀	Nonattainment	Attainment

Table 5 (cont.): San Joaquin Valley Air Basin Attainment Status

Pollutant	State Status	National Status
PM _{2.5}	Nonattainment	Nonattainment
Lead	Attainment	No Designation/Classification
Source of State status: California Air Resources Board (ARB 2013c). Source of National status: U.S. Environmental Protection Agency (EPA 2016a). Source of Additional Status Information (SJVAPCD 2017a).		

2.4—Air Quality Plans and Regulations

Air pollutants are regulated at the national, state, and air basin or county level, and each agency has a different level of regulatory responsibility: the EPA regulates at the national level, the ARB at the state level, and the SJVAPCD at the air basin level.

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards—also known as the federal standards described earlier.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts; specifically, an air district prepares their federal attainment plan, which is sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. The ARB then submits the to the EPA for approval. After reviewing submitted SIPs, the EPA proposes to approve or disapprove all or part of each plan. The public has an opportunity to comment on the EPA's proposed action. EPA considers public input before taking final action on a state's plan. If EPA approves all or part of a SIP, those control measures are enforceable in federal court. If a state fails to submit an approvable plan or if EPA disapproves a plan, the EPA is required to develop a federal implementation plan (FIP). The most recent federally approved attainment plans for the SJVAPCD are the 2007 8-hour Ozone Attainment Plan and the 2012 PM_{2.5} Plan for the 2006 PM_{2.5} standard.

Areas designated nonattainment must develop air quality plans and regulations to achieve standards by specified dates, depending on the severity of the exceedances. For much of the country, implementation of federal motor vehicle standards and compliance with federal permitting requirements for industrial sources are adequate to attain air quality standards on schedule. For many areas of California, however, additional state and local regulation is required to achieve the standards. Regulations adopted by California are described below.

2.4.1 - California Regulations

Low-Emission Vehicle Program

The ARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan. In 2012, ARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and GHGs for new passenger vehicles (ARB 2012a).

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, as well as test procedures. ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others (ARB 2013b).

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low-use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks (ARB 2015).

ARB Truck and Bus Regulation

The latest amendments to the Truck and Bus regulation became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low-use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks (ARB 2015).

ARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce DPM and nitrous oxide (NO_x) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in

construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to \$10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501–5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

ARB Airborne Toxic Control Measure for Asbestos

In July 2001, the ARB approved an Air Toxic Control Measure for construction, grading, quarrying, and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than 1 acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. The project includes demolition of a house and several associated shed structures. Buildings often include materials containing asbestos. Asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentine) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

The ARB has an Air Toxic Control Measure for construction, grading, quarrying, and surface mining operations, requiring the implementation of mitigation measures to minimize emissions of asbestos-laden dust. The measure applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally occurring asbestos is likely to be found. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near the project site.

Diesel Risk Reduction Plan

The ARB's Diesel Risk Reduction Plan has led to the adoption of state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by

about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020 (ARB 2000).

2.4.2 - San Joaquin Valley Air Pollution Control District

The District is responsible for controlling emissions primarily from stationary sources. The District, in coordination with the eight countywide transportation agencies, is also responsible for developing, updating, and implementing air quality attainment plans for the Air Basin. The District also has roles under CEQA.

Ozone Plans

The Air Basin is designated nonattainment of state and federal health-based air quality standards for ozone. To meet Clean Air Act requirements for the one-hour ozone standard, the District adopted an Extreme Ozone Attainment Demonstration Plan in 2004, with an attainment date of 2010. Although the EPA revoked the federal 1-hour ozone standard effective June 15, 2005 and replaced it with an 8-hour standard, the requirement to submit a plan for that standard remained in effect for the San Joaquin Valley.

The planning requirements for the 1-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan. On March 8, 2010, the EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan, including revisions to the plan, effective April 7, 2010. However, the Air Basin failed to attain the standard in 2010 and was subject to a \$29-million Clean Air Act penalty. The penalty is being collected through an additional \$12 motor vehicle registration surcharge for each passenger vehicle registered in the Air Basin that will be applied to pollution reduction programs in the region. The District also instituted a more robust ozone episodic program to reduce emissions on days with the potential to exceed the ozone standards. On July 18, 2016, the EPA published in the Federal Register a final action determining that the San Joaquin Valley has attained the 1-hour ozone national ambient air quality standard. This determination is based on the most recent three-year period (2012–2014) of sufficient, quality-assured, and certified data. The penalty fees remain in place pending submittal of a demonstration that the San Joaquin Valley will maintain the 1-hour standard for 10 years (EPA 2016b).

The EPA originally classified the Air Basin as serious nonattainment for the 1997 federal 8-hour ozone standard with an attainment date of 2013. On April 30, 2007, the District's Governing Board adopted the 2007 Ozone Plan, which contained analysis showing a 2013 attainment target to be infeasible. The 2007 Ozone Plan details the plan for achieving attainment on schedule with an "extreme nonattainment" deadline of 2024. At its adoption of the 2007 Ozone Plan, the District also requested a reclassification to extreme nonattainment. ARB approved the plan in June 2007, and the EPA approved the request for reclassification to extreme nonattainment on April 15, 2010.

The 2007 Ozone Plan contains measures to reduce ozone and particulate matter precursor emissions to bring the Basin into attainment with the federal 8-hour ozone standard. The 2007 Ozone Plan calls for a 75 percent reduction of NO_x and a 25 percent reduction of reactive organic gases (ROG). Figure 4 displays the anticipated NO_x reductions attributed in the 2007 Ozone Plan. The plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour

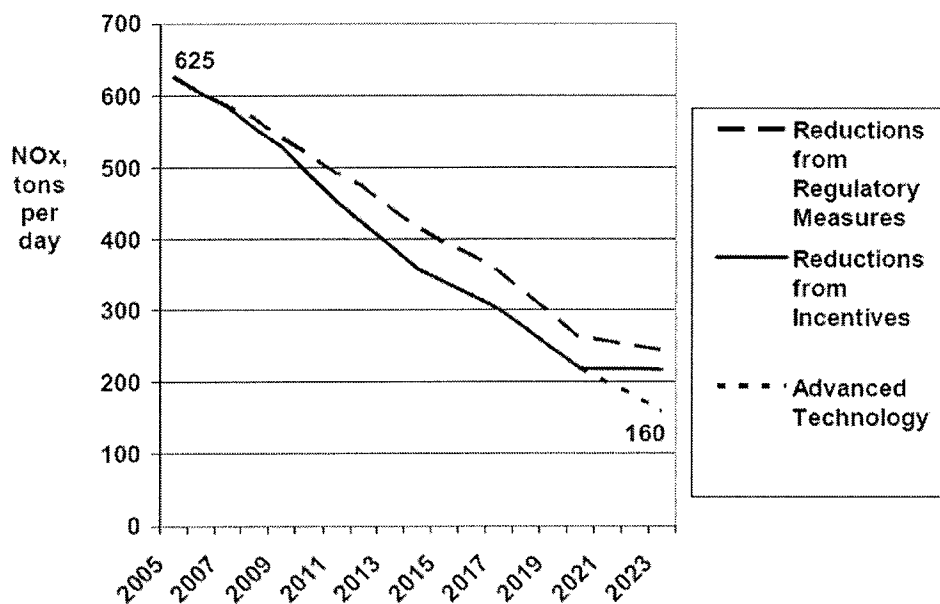
ozone standard for all Air Basin residents. The District Governing Board adopted the 2007 Ozone Plan on April 30, 2007. The ARB approved the plan on June 14, 2007. The 2007 Ozone Plan requires yet to be determined “Advanced Technology” to achieve additional reductions after 2021, in order to attain the standard at all monitoring stations in the Air Basin by 2024 as allowed for areas designated extreme nonattainment by the federal Clean Air Act.

The Air Basin is designated as an extreme ozone nonattainment area for the EPA’s 2008 8-hour ozone standard of 75 ppb. The District’s Governing Board approved the 2016 Plan for the 2008 8-Hour Ozone Standard on June 16, 2016. The ARB approved the attainment demonstration plan for the San Joaquin Valley on July 21, 2016 and transmitted the plan to EPA on August 24, 2016. The comprehensive strategy in this plan will reduce NO_x emissions by over 60 percent between 2012 and 2031, and will bring the San Joaquin Valley into attainment of the EPA’s 2008 8-hour ozone standard as expeditiously as practicable, no later than December 31, 2031. The 2016 Ozone Plan predicts attainment of the 2008 standard by 2031 (SJVAPCD 2018a). To ensure that the plan is approvable with the necessary contingencies, the plan includes a “Black Box” that will require implementation of new advanced technologies and controls prior to the 2031 deadline.

The EPA Administrator signed the Final Rule revising the 8-hour ozone standard to 70 ppm on October 1, 2015. The new standard will require the SJVAPCD to prepare a new attainment to achieve the more stringent emission level within 20 years from the effective date of designation (EPA 2018).

State ozone standards do not have an attainment deadline but require implementation of all feasible measures to achieve attainment at the earliest date possible. This is achieved through compliance with the federal deadlines and control measure requirements.

Figure 4: San Joaquin Valley NO_x Emissions Forecast



(Source: 2007 Ozone Plan.)

Particulate Matter Plans

The Air Basin was designated nonattainment of state and federal health-based air quality standards for PM₁₀. The Air Basin is also designated nonattainment of state and federal standards for PM_{2.5}.

To meet Clean Air Act requirements for the PM₁₀ standard, the District adopted a PM₁₀ Attainment Demonstration Plan (Amended 2003 PM₁₀ Plan and 2006 PM₁₀ Plan), which has an attainment date of 2010. The District adopted the 2007 PM₁₀ Maintenance Plan in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM₁₀ standard. The EPA designated the valley as an attainment/maintenance area for PM₁₀ on September 25, 2008. Although the San Joaquin Valley has exceeded the standard since then, those days were considered exceptional events that are not considered a violation of the standard for attainment purposes.

The 2008 PM_{2.5} Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the Air Basin into attainment of the 1997 national standards for PM_{2.5}. The EPA has identified NO_x and SO₂ as precursors that must be addressed in air quality plans for the 1997 PM_{2.5} standards. The 2008 PM_{2.5} Plan is a continuation of the District's strategy to improve the air quality in the Air Basin. The EPA issued final approval of the 2008 PM_{2.5} Plan on November 9, 2011, which became effective on January 9, 2012. The EPA approved the emissions inventory, the reasonably available control measures/reasonably available control technology demonstration, reasonable further progress demonstration, attainment demonstration and associated air quality modeling, and the transportation conformity motor vehicle emissions budgets. The EPA also granted California's request to extend the attainment deadline for the San Joaquin Valley to April 5, 2015 and approved commitments to measures and reductions by the District and the ARB. Finally, it disapproved the State Implementation Plan's contingency provisions and issued a protective finding for transportation conformity determinations.

In December 2012, the District adopted the 2012 PM_{2.5} Plan to bring the San Joaquin Valley into attainment of the EPA's 2006 24-hour PM_{2.5} standard of 35 µg/m³. The ARB approved the District's 2012 PM_{2.5} Plan for the 2006 standard at a public hearing on January 24, 2013 (SJVAPCD 2012). This plan seeks to bring the Valley into attainment with the standard by 2019, with the expectation that most areas will achieve attainment before that time.

The 2015 Plan for the 1997 PM_{2.5} Standard approved by the District Governing Board on April 16, 2015—will bring the Valley into attainment of the EPA's 1997 PM_{2.5} standard as expeditiously as practicable, but no later than December 31, 2020. The plan was required to request reclassification to Serious nonattainment and to extend the attainment date from 2018 to 2020 (SJVAPCD 2015b).

The 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard was adopted on September 15, 2016. This plan includes an attainment impracticability demonstration and request for reclassification of the Valley from Moderate nonattainment to Serious nonattainment. The 2016 PM_{2.5} Plan is under ARB review (SJVAPCD 2017b).

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards on November 15, 2018. This plan provides a combined strategy to address the EPA federal 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³; the 2006 24-hour PM_{2.5} standard of 35 µg/m³;

and the 2012 annual PM_{2.5} standard of 12 µg/m³. This plan demonstrates attainment of the federal PM_{2.5} standards as expeditiously as practicable (SJVAPCD 2018b).

SJVAPCD Rules and Regulations

The SJVAPCD rules and regulations that may apply to the project include but are not limited to the following:

Rule 2201—New and Modified Stationary Source Review Rule. The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards. Permits may be required if the project includes a diesel emergency generator.

Rule 2520 – Federally Mandated Operating Permits provides a mechanism for issuing operating permits for new and modified sources of air contaminants, renewing operating permits for sources of air contaminants, revising, reopening, revoking, and terminating operating permits for sources of air contaminants, and incorporating requirements authorized by preconstruction permits issued under District Rule 2201 in accordance with requirements of 40 CFR Part 70, renewing permits

Rule 4001 – New Source Performance Standards establishes specific standards, criteria, and requirements that new sources of air pollution or modification of existing sources must comply with.

Rule 4002 – National Emissions Standards for Hazardous Air Pollutants. The purpose of the rule is to incorporate the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations to protect the health and safety of the public from hazardous air pollutants, such as asbestos.

Rule 4102—Nuisance. The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials. Agricultural activities are exempt from the nuisance rule. The rule is enforced on a complaint basis.

Rule 4601—Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Non-compliant coatings may not be sold in the San Joaquin Valley.

Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This measure is enforced by Air District permits on asphalt plants supplying the paving contractors.

Rule 4702—Internal Combustion Engines. The purpose of this rule is to limit the emissions of NO_x, carbon monoxide (CO), VOC, and sulfur oxides (SO_x) from internal combustion engines.

Regulation VIII—Fugitive PM₁₀ Prohibitions. Rules 8011–8081 are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules. The project will require a Dust Control Plan prior to commencing soil-disturbing activities.

CEQA

The District has three roles under CEQA:

1. **Lead Agency:** Responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the District where the District has primary approval authority over the project.
2. **Responsible Agency:** The discretionary authority of a responsible agency is more limited than a lead agency; having responsibility for mitigating or avoiding only the environmental effects of those parts of the project which it decides to approve, carry out, or finance. The District defers to the lead agency for preparation of environmental documents for land use projects that also have discretionary air quality permits, unless no document is prepared by the lead agency and potentially significant impacts related to the permit are possible. The District regularly submits comments on documents prepared by lead agencies to ensure that District concerns are addressed.
3. **Commenting Agency:** The District reviews and comments on air quality analyses prepared by other public agencies (such as the project).

The District also provides guidance and thresholds for CEQA air quality and GHG analyses. The result of this guidance, as well as state regulations to control air pollution, is an overall improvement in the Air Basin. In particular, the District's 2015 GAMAQI states the following:

1. The District's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. The general plan is the primary long-range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals. Section 65302.1 of the California Government Code requires cities and counties in the San Joaquin Valley to amend appropriate elements of their general plans to include data, analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality in their next housing element revisions.
2. The Air Quality Guidelines for General Plans (AQGGP), adopted by the District in 1994 and amended in 2005, is a guidance document containing goals and policy examples that cities and counties may want to incorporate into their General Plans to satisfy Section 65302.1. When adopted in a general plan and implemented, the suggestions in the AQGGP can reduce vehicle trips and miles traveled and improve air quality. The specific suggestions in the AQGGP are voluntary. The District strongly encourages cities and counties to use their land use and transportation planning authority to help achieve air quality goals by adopting the suggested policies and programs.

2.4.3 - Local

The Stanislaus County General Plan was adopted in August 2016 (Stanislaus County 2016). The applicable air quality goals and policies from the General Plan are listed below.

Relevant General Plan Air Quality-related Policies and Implementation Measures

Policy Eighteen

The County will promote effective communication, cooperation, and coordination among agencies involved in developing and operating local and regional air quality programs.

Implementation Measures

1. Refer discretionary projects under CEQA review to the San Joaquin Valley Air Pollution Control District (SJVAPCD), neighboring jurisdictions and other affected agencies for review and comment.
2. Work with other agencies in the San Joaquin Valley to establish coordinated air quality programs and implementation measures.

Policy Nineteen

The County will strive to accurately determine and fairly mitigate the local and regional air quality impacts of proposed projects.

Implementation Measures

1. Require all development proposals, where appropriate, to include reasonable air quality mitigation measures.
2. Minimize case-by-case analysis of air quality impacts through the use of standard criteria for determining significant environmental effects, a uniform method of calculating project emissions, and standard mitigation methods to reduce air quality impacts.

Policy Twenty

The County shall strive to reduce motor vehicle emissions by reducing vehicle trips and vehicle miles traveled and increasing average vehicle ridership.

Implementation Measures

1. Through strategies identified in the Circulation Element, ensure that circulation systems are designed and maintained to minimize traffic congestion and vehicle emissions.
2. Support a broad range of transportation modes, including public transit, bicycling and pedestrian travel, through the strategies identified in the Circulation Element.
3. Help achieve a jobs/housing balance by working with appropriate organizations to attract employers to Stanislaus County.

Policy Twenty-One

The County will support efforts to increase public awareness of air quality problems and solutions.

Implementation Measures

1. Support and participate in the air quality education programs of the SJVAPCD to the greatest extent possible.
2. Support education programs that increase public awareness of techniques to reduce particulate matter emissions.
3. Work with the local building industry, utilities, and the SJVAPCD to educate developers and builders on the benefits of energy-efficient designs and the use of low-emission equipment for new residential and commercial construction.

2.4.4 - Existing Sources of Toxic Emissions

No existing or planned sources of toxic emissions were identified that exceed ARB recommendations in its Air Quality Land Use Handbook for siting sensitive land uses that would impact the project.

2.4.5 - ARB Air Quality Land Use Handbook

The following is a list of land uses that may result in impacts to sensitive land uses when located near specific sources of air pollution (ARB 2005):

- High traffic freeways and roads
- Distribution centers
- Rail yards
- Ports
- Refineries
- Chrome plating facilities
- Dry cleaners
- Large gas dispensing facilities

The project includes diesel trucks and freight trains that may impact sensitive receptors (residences) close to the project site. The analysis examines the potential impacts from these pollution sources on sensitive receptors to determine if a potentially significant impact from TAC emissions may occur.

SECTION 3: MODELING PARAMETERS AND ASSUMPTIONS

3.1—Model Selection and Guidance

Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors represent the emission rate of a pollutant given the activity over time; for example, grams of NO_x per horsepower-hour or grams of NO_x per vehicle mile traveled. The ARB has published emission factors for on-road mobile vehicles/trucks in the EMFAC mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was developed by the South Coast Air Quality Management District in cooperation with other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with construction and operation from a variety of land uses.

The modeling follows District guidance where applicable from its GAMAQI. The models used in this analysis are summarized as follows:

- Construction emissions: CalEEMod, version 2016.3.2
- Operational emissions: CalEEMod, version 2016.3.2

3.2—Air Pollutants Assessed

3.2.1 - Criteria Pollutants Assessed

The following air pollutants are assessed in this analysis:

- Reactive organic gases (ROG)
- Nitrogen oxides (NO_x)
- Carbon monoxide (CO)
- Sulfur dioxide (SO₂)
- Particulate matter less than 10 microns in diameter (PM₁₀)
- Particulate matter less than 2.5 microns in diameter (PM_{2.5})

Note that the project would emit ozone precursors ROG and NO_x. However, the project would not directly emit ozone, since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

As noted previously, the project would emit ultrafine particles. However, there is currently no standard separate from the PM_{2.5} standards for ultrafine particles and there is no accepted methodology to quantify or assess the significance of such particles.

3.3—Construction Modeling Assumptions

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM₁₀) from disturbed soil. Additionally, paving operations and application of architectural coatings would release VOC emissions. Off-site emissions are caused by motor vehicle exhaust from customer vehicles, worker traffic, and road dust (PM₁₀ and PM_{2.5}).

3.3.1 - Project Schedule

The first phase of the project began construction in 2017 and became operational in 2018. To ensure the full impact of the entire project including the future phases is fully addressed, the emissions from Phase 1 were added to the emissions from the future phases when making significance determinations. Construction in Phase 2 and later portions of the project were assumed to start in September 2019 and to continue until all buildings identified in the project description are complete. This is a conservative assumption since construction start dates for later buildings are likely to be later. Full buildout is assumed to occur by June 2021, based on the CalEEMod default schedule. First occupancy of Phase 2 and later was assumed to occur in 2020. Although the project is expected to be constructed in phases and could take several more years to buildout, the analysis assumed the entire project would be operational by 2020 as a conservative assumption. The detailed construction schedule and modeling results can be reviewed in the modeling results included in Appendix A of this report.

3.3.2 - Construction Equipment Emission Factors

CalEEMod contains an inventory of construction equipment that incorporates estimates of the number of equipment, age, horsepower, and equipment tier from which rates of emissions are developed. The CalEEMod default equipment emission factors were used. CalEEMod's off-road emission factors and load factors are from the ARB OFFROAD model were used in the analysis.

3.3.3 - Site Preparation

Site preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading. During site preparation, emissions are generated from the use of diesel construction equipment. Fugitive dust is generated during soil-disturbing activities and truck loading and unloading.

3.3.4 - Grading

During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from dozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Each of those activities is calculated differently in CalEEMod, based on the number of acres traversed by the grading equipment.

Only some pieces of equipment generate fugitive dust in CalEEMod. The CalEEMod manual identifies various equipment and the acreage disturbed in an 8-hour day:

- Crawler tractors, graders, and rubber-tired dozers: 0.5 acre per 8-hour day
- Scrapers: 1 acre per 8-hour day

Therefore, the following acres are the total quantities disturbed per day, per phase, according to the acreage disturbed quantities listed above:

- Demolition = 1 acre per day
- Site preparation = 3.5 acres per day
- Grading = 2.5 acres per day

3.3.5 - Building Construction, and Paving

The analysis uses default modeling assumptions in CalEEMod for construction equipment during building construction, and paving.

3.3.6 - Construction Off-site Trips

Worker trips are accounted for during the construction phases, based on 1.25 trips per piece of equipment (the CalEEMod default). The CalEEMod default worker trip length of 16.8 miles for rural project sites was retained. The CalEEMod default vehicle fleet (LD Mix) was used for employee trips.

Vendor trips for the building construction phase are calculated from a study performed by the Sacramento Metropolitan Air Quality Management District based on land use and size. The CalEEMod defaults for vendor trips, trip length, and vehicle fleet (Heavy Duty Truck Vehicle Fleet Mix) were used.

It was assumed that soil would be balanced on-site, and, therefore, there would be no soil imported or exported from the project site. Details regarding the modeling assumptions are provided in Appendix A.

3.4—Operation

Operational emissions are those emissions that occur when the project is occupied. The major sources of emissions are summarized below.

3.4.1 - Motor Vehicles

Motor vehicle emissions refers to exhaust and road dust emissions from the automobiles and trucks that would travel to and from the project site. The analysis used a project-specific trip generation rates that were included in the Traffic Impact Study prepared by KD Anderson and Associates in March 2017. The analysis used CalEEMod default trip lengths for employee trips and an SJVAPCD recommended trip length of 50 miles for heavy duty truck trips.

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles). The CalEEMod default vehicle fleet mix was adjusted based on the use of passenger vehicles for employee trips and heavy-duty trucks for the truck modeling runs.

Train operations are estimated using data from the project description and traffic study regarding volume and timing of the operations. Locomotive emission factors from EPA and ARB were used to calculate train emissions during train maneuvering and idling that would occur during the drop off of empty train cars and the pick-up of fully loaded train cars. The project is expected to use 4 trains per week with 5 cars added per train for a total of 20 train cars per week. The facility train spur is on an existing Union Pacific rail line that serves this area of Stanislaus County. The trains currently operate on this route, so new emissions are generated only when the trains are dropping off or picking up the train cars.

The analysis assesses the impacts of diesel particulate emissions using SJVAPCD Prioritization Screening Tool. The sources of DPM emissions includes diesel trucks and the locomotives serving the project site. The project description identified an increase of 25 trucks on-site or 50 round trips per day. The analysis identified idle points at the warehouse loading docks and on-site travel along the planned access road serving the warehouses. Train idling and travel would occur on the rail spur adjacent to the project site along Bystrum Road.

The project is expected to increase employment by 30 persons at buildout. Each employee was assumed to make one round trip from home to work each day. A separate CalEEMod run was prepared for employee trips and for truck trips.

3.4.2 - Architectural Coatings (Painting)

Paints release VOC emissions during application and drying. The project is required to comply with the SJVAPCD Rule 4601—Architectural Coatings. The rule requires flat paints to meet a standard of 50 grams per liter (g/l) and gloss paints 100 g/l by 2012. This rule is enforced at the point of sale. Most of the coatings used for exterior and interior painting are flat paints. An average VOC content of 65 g/l was assumed in the analysis.

3.4.3 - Consumer Products

Consumer products are various solvents used in non-industrial applications that emit VOCs during their product use. “Consumer Product” means a chemically formulated product used by household and institutional consumers, including but not limited to detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. It does not include other paint products, furniture coatings, or architectural coatings (ARB 2011). The default emission factor developed for CalEEMod was used.

3.4.4 - Landscape Equipment

CalEEMod estimated the landscaping equipment using the default assumptions in the model.

3.4.5 - Natural Gas

The project would generate emissions from the combustion of natural gas for water heaters, heat, etc. CalEEMod has two categories for natural gas consumption: Title 24 and non-Title 24. CalEEMod defaults were used.

SECTION 4: AIR QUALITY IMPACT ANALYSIS

This section calculates the expected emissions from construction and operation of the project as a necessary requisite for assessing the regulatory significance of project emissions on a regional and localized level.

4.1—CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines effective December 28, 2018. A significant impact would occur if the project would:

- 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 nonattainment under an applicable national or state ambient air quality standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the lead agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable thresholds and methodologies are contained under each impact statement below.

4.2—Impact Analysis

4.2.1 - Consistency with Air Quality Plan

Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs?

The use of the criteria listed above is a standard approach for CEQA analysis of projects in the District's jurisdiction, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.
- AQP emissions inventories and attainment modeling are based on growth assumptions for the area within the air district's jurisdiction.
- AQPs rely on a set of air district-initiated control measures as well as implementation of federal and state measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

AQPs are plans for reaching attainment of air quality standards. The growth assumptions, emission inventory, and control measures to reduce emissions are analyzed to determine if the Air Basin can reach attainment for the ambient air quality standards by the schedule required by the federal Clean Air Act. In order to show attainment of the standards, the District analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The District then formulates a control strategy to reach attainment that includes both state and district regulations and other local programs and measures.

Contribution to Air Quality Violations

A measure for determining if the project is consistent with the air quality plans is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its cumulative contribution. Because of the region's nonattainment status for ozone, PM_{2.5}, and PM₁₀—if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_x), PM₁₀, or PM_{2.5} would exceed the District's significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

As discussed in Impact AIR-2 below, emissions of ROG, NO_x, PM₁₀, and PM_{2.5} associated with the construction and operation of the project would not exceed the District's significance thresholds. As shown in Impact AIR-3, the project would not result in CO hotspots that would violate CO standards. Therefore, the project would not contribute to air quality violations.

Air Quality Plan Control Measures

Compliance with Applicable Control Measures

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A description of rules and regulations that may apply to this project is provided below.

Rule 2201—New and Modified Stationary Source Review Rule. The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards. The project would be required to comply with this rule if the buildings included diesel emergency generators or installed processing equipment that emits more than 2 pounds per day of any criteria pollutant.

Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This measure is enforced by Air District permits on asphalt plants supplying the paving contractors.

Regulation VIII—Fugitive PM₁₀ Prohibitions is a control measure that is one main strategies from the 2006 PM₁₀ for reducing the PM₁₀ emissions that are part of fugitive dust. Projects over 10 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The project is required to prepare a DCP to comply with Regulation VIII.

Another control measure that applies to the project is Rule 4601—Architectural Coatings, which limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley. These measures are enforced at the point of sale.

Conclusion

The project's emissions would be less than significant for all criteria pollutants after compliance with SJVAPCD regulations and would not result in inconsistency with the AQP for this criterion. The project complies with all applicable rules and regulations from the applicable air quality plans; therefore, the project is not considered inconsistent with the AQP, and the impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

4.2.2 - Cumulative Criteria Pollutant Impacts

Impact AIR-2: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Impact Analysis

To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the District's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Regional Emissions

Air pollutant emissions have both regional and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are addressed under Impact AIR-3 using concentration-based SJVAPCD pound-per-day thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance at the nearest sensitive receptor location. The SJVAPCD AQP includes a summary of projections of all growth anticipated in the San Joaquin Valley Air Basin and controls required to meet air quality standards. This criterion is met through the AQP consistency analysis included under Impact AIR-1.

The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_x, ROG, SO_x, PM₁₀, and PM_{2.5}.

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The District's annual emission significance thresholds used for the project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year SO_x
- 15 tons per year PM₁₀
- 15 tons per year PM_{2.5}

The project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation. Modeling conducted for the project show that SO₂ emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix A. No further analysis of SO₂ is required.

Construction Emissions

Construction emissions associated with the project are shown in Table 6. The emissions from all phases of construction that occur in a year were compared with the significance threshold. The determination is based on highest emissions in any year of construction. For assumptions in estimating the emissions, please refer to Section 4, Modeling Parameters and Assumptions. As shown in Table 6, the emissions are below the significance thresholds. Therefore, the emissions would be less than significant on a project basis.

Table 6: Construction Air Pollutant Emissions (Annual)

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Phase 1 Construction Emissions 2017	0.66	5.09	4.35	0.73	0.36
Phase 1 Construction Emissions 2018	0.99	3.43	3.30	0.53	0.23
Phase 2 Construction Emissions 2019	0.20	1.98	1.36	0.26	0.15
Phase 2 Construction Emissions 2020	0.64	4.97	4.82	0.87	0.34
Phase 2 Construction Emissions 2021	4.60	1.65	1.71	0.30	0.12
Total Project Construction Emissions	7.09	17.12	15.54	2.69	1.20
Highest in any Year	4.60	5.09	4.82	0.87	0.36
Significance threshold (tons/year)	10	10	100	15	15
Exceed threshold—significant impact?	No	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Calculations use unrounded numbers. Source: CalEEMod output (Appendix A).					

Operational Emissions

Operational emissions occur over the lifetime of the project and are from three main sources: motor vehicles, locomotives, and energy use. The analysis assumes that the entire project will be operational in 2020. Consistent with SJVAPCD guidance, the annual operational emissions are considered separately from construction emissions.

For assumptions in estimating the emissions, please refer to Section 4, Modeling Parameters and Assumptions and Appendix A. The emissions modeling results for project operation are summarized

in Table 7. As shown in Table 7, the operational emissions are below the SJVAPCD significance thresholds and, therefore, would result in a less than significant impact.

Table 7: Operational Air Pollutant Emissions (2020)

Source	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Phase 1 Area	0.62	0.00	0.00	0.00	0.00
Phase 1 Energy	0.01	0.11	0.07	0.01	0.01
Phase 2 Area	2.64	0.00	0.00	0.00	0.00
Phase 2 Energy	0.06	0.52	0.44	0.04	0.04
Phase 2 Mobile (Employee)	0.02	0.35	0.00	0.09	0.02
Phase 2 Mobile (Truck)	0.16	5.00	0.78	0.42	0.13
Train Operations	0.01	0.11	0.01	0.00	0.00
Total All Phases	3.51	6.09	1.29	0.56	0.20
Significance threshold	10	10	100	15	15
Exceed threshold—significant impact?	No	No	No	No	No
Notes: ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Area source emissions include emissions from natural gas, and landscape. Source: CalEEMod output (Appendix A).					

Project Health Impacts

In the 5th District Court of Appeal case *Sierra Club v. County of Fresno (Friant Ranch, L.P.)*, the Court found the project EIR deficient because it did not identify specific health related effects resulting from the estimated amount of pollutants generated by the project. The ruling stated that the EIR should give a “sense of the nature and magnitude of the ‘health and safety problems’ caused by a project’s air pollution. The EIR should translate the emission numbers into adverse impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible).”

The standard measure of the severity of impact is the concentration of pollutant in the atmosphere compared to the ambient air quality standard for the pollutant for a specified period of time. The severity of the impact increases with the concentration and the amount of time that people are exposed to the pollutant. The change in health impacts with concentration is described in Table 3 and Table 4. The pollutants of concern in the Friant Ranch ruling were regional criteria pollutants ozone, and PM₁₀. It is important to note that the potential for localized impacts can be addressed through dispersion modeling. The SJVAPCD includes screening criteria that if exceeded would require dispersion modeling to determine if project emissions would result in a significant health impact. For this project, no significant localized health impacts would occur. Regional pollutants require more complex modeling as described below.

Ozone concentrations are estimated using regional photochemical models because ozone formation is subject to temperature, inversion strength, sunlight, emissions transport over long distances, dispersion, and the regional nature of the precursor emissions. The emissions from individual projects are too small to produce a measurable change in ozone concentrations – it is the cumulative contribution of emissions from existing and new development that is accounted for in the photochemical model. Ozone concentrations vary widely throughout the day and year even with the same amount of daily emissions. The SJVAPCD indicated in an Amicus Brief on Friant Ranch that running the photochemical model with just Friant Ranch emissions (109.5 tons/year NO_x) is not likely to yield valid information given the relative scale involved. A copy of the SJVAPCD brief is included in Appendix B. The NO_x inventory for the San Joaquin Valley is 224 tons per day in 2019 or 81,760 tons per year. Friant Ranch would result in 0.13 percent increase in NO_x emissions. A project emitting at the SJVAPCD CEQA threshold of 10 tons per year would result in a 0.01 percent increase in NO_x emissions. Most project emissions are generated by motor vehicle travel distributed on regional roadways miles from the project site, and these emissions are not conducive to project-level modeling.

Emissions throughout the San Joaquin Valley are projected to markedly decline in the coming decade. The SJVAPCD 2016 Ozone Plan predicts NO_x emissions will decline to 103 tons per day by 2029 or 54 percent from 2019 levels through implementation of control measures included in the plan. This means that ozone health impacts to residents of the San Joaquin Valley will be lower than currently experienced and most areas of the San Joaquin Valley will have attained ozone air quality standards. The plan accounts for growth in population at rates projected by the State of California for the San Joaquin Valley, so only cumulative projects that would exceed regional growth projections would potentially delay attainment and prolong the time and the number of people would experience health impacts. It is unlikely that anyone would experience greater impacts from regional emissions than currently occur. The federal transportation conformity regulation provides a means of ensuring growth in emissions does not exceed emission budgets for each County. Regional Transportation Plans and Regional Transportation Improvement Plans must provide a conformity analysis based on the latest planning assumptions that demonstrates that budgets will be not be exceeded. If budgets are exceeded, the San Joaquin Valley may be subject to Clean Air Act sanctions until the deficiency is addressed.

Particulate emission impacts can be localized and regional. Particulates can be directly emitted and can be formed in the atmosphere with chemical reactions. Small directly emitted particles such as diesel emissions and other combustion emissions can remain in the atmosphere for a long time and can be transported over long distances. Large particles such as fugitive dust tend to be deposited a short distance from where emitted but can also travel long distances during periods of high winds. Particulates can be washed out of the atmosphere by rain and deposited on surfaces. Secondary particulates formed in the atmosphere such as ammonium nitrate require NO_x and ammonia, and they require low inversion levels and certain ranges of temperature and humidity to result in substantial concentrations. These complications make modeling project particulate emissions to determine concentration feasible only for directly emitted particles at receptor locations close to the project site. Regional particulate concentrations are modeled using a gridded inventory (emissions in tons/day are placed a 4-kilometer, three-dimensional grid to spatially allocate the emissions geographically and vertically in the atmosphere) and an atmospheric chemistry component to

simulate the chemical reactions. The model uses relative reduction factors to determine the amount of reductions of each PM component will be needed to attain the air quality standards on the days with the conditions most favorable to high particulate concentrations. A small project would not produce sufficient emissions to determine a project's individual contribution to the particulate concentration.

Cumulative Health Impacts

The Air Basin is in nonattainment for ozone, PM₁₀ (State only), and PM_{2.5}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Table 1. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

Since the Basin is nonattainment for ozone, PM₁₀, and PM_{2.5}, it is considered to have an existing significant cumulative health impact without the project. When this occurs, the analysis considers whether the project's contribution to the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO_x, VOC, PM₁₀, or PM_{2.5} are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact. As shown in Table 7 and Table 8, the regional analysis of construction and operational emissions indicates that the project would not exceed the District's significance thresholds and the project is consistent with the applicable Air Quality Attainment Plan. Therefore, the project would not result in significant cumulative health impacts.

The SJVAPCD Air Quality Attainment Plans predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Therefore, the cumulative health impact will also decline even with the project's emission contribution.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

4.2.3 - Sensitive Receptors

Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The District considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest sensitive receptor is a house located at the northeast corner of Keyes Road and Bystrum Road, approximately 175 meters (574 feet) northeast of new rail spur.

Localized Pollutant Analysis

Emissions occurring at or near the project site have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis using dispersion modeling to determine pollutant concentrations. The criteria pollutants of concern for localized impact in the SJVAB are PM₁₀, PM_{2.5}, NO_x, and CO. There is no localized emission standard for ROG and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes.

An analysis of maximum daily emissions during construction and operation was conducted to determine if emissions would exceed 100 pounds per day for any pollutant of concern. The maximum daily construction emissions occurred during Phase 1. Maximum NO_x, CO, PM₁₀, and PM_{2.5} emissions would occur in site grading activities. Maximum ROG emissions would occur during application of architectural coatings. The maximum daily operational emissions would occur at project buildout. Operational emissions include those generated on-site by area sources such as consumer products, and landscape maintenance, energy use from natural gas combustion, and motor vehicle operation at the project site. Most motor vehicle emissions would occur distant from the site and would not contribute to a violation of ambient air quality standards. Motor vehicle emissions are adjusted to reflect only those emissions that occur within 0.5 mile of the site entrance. The results of the screening analysis are presented in Table 8 and Table 9.

Table 8: Maximum Daily Air Pollutant Emissions during Construction

Maximum Daily Emissions	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Construction Emissions	52.36	68.09	50.55	11.24	7.18
Screening threshold	100	100	100	100	100
Exceed screening threshold?	N/A	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Summer emissions were used except for NO _x , which is higher in winter. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix A).					

Table 9: Maximum Daily Air Pollutant Emissions during Operations

Maximum Daily Emissions	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Phase 1					
Area	0.66	5.09	4.35	0.85	0.42
Energy	0.99	3.43	3.30	0.53	0.23
Total Phase 1	1.64	8.52	7.65	1.38	0.65
Phase 2					
Area	14.47	0.00	0.06	0.00	0.00
Energy	0.32	2.87	2.41	0.22	0.22
Mobile (employee and visitor)	0.01	0.01	0.08	0.02	0.00
Mobile (Truck)	0.01	0.33	0.05	0.03	0.01
Train Operations	0.06	1.01	0.06	0.04	0.04
Total Phase 2	14.86	4.22	2.66	0.31	0.27
Daily Operational Emissions, All Phases	16.50	12.74	10.31	1.69	0.92
Screening threshold	—	100	100	100	100
Exceed screening threshold?	N/A	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable The emissions are from the highest of either summer or winter model runs for each pollutant. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix A).					

The project would not exceed SJVAPCD screening thresholds for localized criteria pollutant impacts; therefore, the project's localized criteria pollutant impacts would be less than significant.

Carbon Monoxide Hot Spot Analysis

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of intersections in the project vicinity.

Construction of the project would result in minor increases in traffic for the surrounding road network during the duration of construction. Motor vehicles accessing the site when it becomes operational would result in a minor increase in daily trips that would not substantially reduce the LOS. The project is in a location with low traffic volumes. No congested conditions that would result in a CO hotspot are possible. The project traffic impact study indicates that all intersection would operate at LOS C or better with the project at buildout. In addition, the highest background 8-hour average of carbon monoxide during the latest year CO was monitored is 2.06 ppm, which is 78 percent lower than the state ambient air quality standard of 9.0 ppm. Therefore, the project would not significantly contribute to an exceedance of state or federal CO standards.

Construction: Toxic Air Contaminants

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. The SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million). The SJVAPCD's 2015 GAMAQI does not currently recommend analysis of TAC emissions from project construction activities, but instead focuses on projects with operational emissions that would expose sensitive receptors over a typical lifetime of 70 years. The site preparation and grading phases that use large quantities of diesel equipment would take place over less than 3 months. In addition, the project is in a rural area that would not expose substantial numbers of persons to TAC emissions during construction. Therefore, no additional construction modeling was prepared.

Operation: Toxic Air Contaminants

The SJVAPCD recommends use of its health risk prioritization tool as a screening method to estimate the impacts of TAC emissions on sensitive receptors. Projects that exceed a prioritization score of 10 would be required to conduct dispersion modeling and prepare a full health risk assessment. The prioritization tool generates risk estimates at various distances from the emission sources. The emissions concentrations and related risk declines rapidly with distance from the source due to dispersion, so the distance between the source and the receptor is a critical factor.

The project is expected to generate TAC emissions from diesel trucks and diesel locomotives serving the facility. Emissions from trucks include on-site travel along access routes to the new warehouses and idling points at the warehouses. The project is expected to generate approximately 50 new truck round trips per day. The project will use trains to transport products, which results in the use of fewer trucks than would otherwise be the case. Each train car eliminates the need for 3 trucks or about 60 truck trips per week. The facility anticipates that it will use 4 trains per week with 5 train cars per train at buildout or 20 train cars per week. The train emission analysis includes train maneuvering for dropping off empty train cars and picking up full train cars for shipment, and idling while the trains are assembled. The analysis assumed that each drop-off and each pickup would require 15 minutes. The full modeling assumptions and screening results are provided in Appendix A.

The sensitive receptor nearest to the new TAC emission sources resulting from the project was identified using Google Earth. The largest source of TAC emissions is from the locomotives used to assemble the trains used to haul products from the Bronco Winery. The next-largest source is on-site truck idling and travel, followed by the off-site truck travel near the site.

The highest impact on sensitive receptors would occur at residences located at the northwest corner of Keyes Road and Bystrum Road. The residences are approximately 175 meters from the rail spur idling area and less than 100 meters from the closest point where the trains would be maneuvering during train car pick-ups. The residences are also the closest receptors to off-site truck travel (167 meters) and are the second closest receptor to new on-site idling areas at the warehouses (285 meters). The receptor closest to the truck idling area is located approximately 205 meters directly east of the new warehouses but this receptor is over 400 meters from the largest emission sources (the train spur, and off-site truck travel) and would experience substantially lower impacts.

The screening tool estimates of total risk scores from each source on the nearest sensitive receptor were added together to determine the total risk for the entire project. The results for the most impacted receptor are presented in Table 10.

Table 10: Prioritization Tool Health Risk Screening Results

Source	Cancer Risk Prioritization Score	Chronic Risk Score
Train Maneuvering and Idling	4.89	0.010
On-site Truck Travel	0.02	0.000
On-site Truck Idling	0.23	0.001
Off-site Truck Travel	0.23	0.001
Total risk from project	5.35	0.011
Screening Threshold	10	1
Note: Individual scores were calculated for each source based on distance to the nearest receptor location. Source: SJVAPCD Health Risk Prioritization Calculator.		

The largest source of the cancer risk is from train operations, which comprise about 91 percent of the risk resulting from the project. The screening tool results show that the project's cancer risk and chronic risk would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. By geographic region, hospitalizations for Valley fever in the San Joaquin Valley increased from 230 (6.9 per 100,000 population) in 2000 to 701 (17.7 per 100,000 population) in 2007. Within the region, Kern County

reported the highest hospitalization rates, increasing from 121 (18.2 per 100,000 population) in 2000 to 285 (34.9 per 100,000 population) in 2007, and peaking in 2005 at 353 hospitalizations (45.8 per 100,000 population). The Centers for Disease Control and Prevention indicates that 752 of the 8,657 persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley fever died (CDC 2009). California experienced 7,466 new cases of Valley fever in 2017. (CDPH 2018). In Stanislaus County there were 118 cases reported in 2017 through November 25. In 2016, a total of 88 cases were reported across Stanislaus County, compared with 54 in 2015 and 35 in 2014, a greater than 50 percent increase each year (Stanislaus County Health Services Agency 2017).

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- 1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
- 2) Old (prehistoric) Indian campsites near fire pits
- 3) Areas with sparse vegetation and alkaline soils
- 4) Areas with high salinity soils
- 5) Areas adjacent to arroyos (where residual moisture may be available)
- 6) Packrat middens
- 7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
- 8) Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

- 1) Cultivated fields
- 2) Heavily vegetated areas (e.g. grassy lawns)
- 3) Higher elevations (above 7,000 feet)
- 4) Areas where commercial fertilizers (e.g. ammonium sulfate) have been applied
- 5) Areas that are continually wet
- 6) Paved (asphalt or concrete) or oiled areas
- 7) Soils containing abundant microorganisms
- 8) Heavily urbanized areas where there is little undisturbed virgin soil (USGS 2000).

The project site is situated on previously disturbed farmland that does not provide suitable habitat for the spores. Therefore, implementation of the project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Although conditions are not favorable, construction activities could generate fugitive dust that contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with the District's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores, would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be relatively small, because most of the project area would be occupied by buildings, paved surfaces, landscaping, and concrete. This condition would lessen the possibility that the project would provide suitable habitat for *C. immitis* spores and generate fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

Review of the map of areas where naturally occurring asbestos in California are likely to occur (U.S. Geological Survey 2011) found no such areas in the project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

Impact Summary

Localized impacts from criteria pollutant emissions would not exceed SJVAPCD screening thresholds. The project does not include substantial amounts of diesel equipment and truck trips that would result in a significant increase in cancer risk, chronic risk, and acute risk due to TAC emissions. Impacts from Valley fever exposure and naturally occurring asbestos would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

4.2.4 - Objectionable Odors

Impact AIR-4: The project would not result in other emissions such as those leading to odors affecting a substantial number of people.

Impact Analysis

Thresholds of Significance

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. The project is located near residences but is situated in an agricultural area where similar odors are common.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The project is of the first type, since it involves a new potential odor source.

The project is a food processing facility listed on the District's screening table for common land use types that are known to produce odors in the Air Basin; however, no changes to the food processing aspects of the facility are proposed. The screening levels for these land use types are shown in Table 11.

Table 11: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source: SJVAPCD 2015a.	

Project Analysis

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The production activities at the existing winery could result in odors. However, the project is constructing warehouse, office, and administrative buildings that would not engage in new activities that would be expected to generate odors. Therefore, the project would not be considered a generator of objectionable odors during operations.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts would therefore be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

SECTION 5: REFERENCES

The following references were used in the preparation of this analysis and are referenced in the text and/or were used to provide the author with background information necessary for the preparation of thresholds and content.

- Air Now. 2015. AQI Calculator: AQI to Concentration. Website: http://www.airnow.gov/index.cfm?action=resources.aqi_conc_calc. Accessed June 1, 2019.
- CalEEMod. California Emissions Estimator Model. Version 2016.3.2 Website: <http://caleemod.com/>. Accessed April 1, 2019.
- California Air Resources Board (ARB). 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. Website: <http://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf>. Accessed March 23, 2019.
- California Air Resources Board (ARB). 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles. Website: <http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf>. Accessed March 23, 2019.
- California Air Resources Board (ARB). 2005. California Environmental Protection Agency. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. Website: www.arb.ca.gov/ch/landuse.htm. Accessed March 23, 2019.
- California Air Resources Board (ARB). 2009a. California Air Resources Board. Vinyl Chloride. Website: www.arb.ca.gov/research/aaqs/caaqs/vc/vc.htm. Accessed March 23, 2019.
- California Air Resources Board (ARB). 2009b. The California Almanac of Emissions and Air Quality—2009 Edition. Chapter 4, Air Basin Trends and Forecasts—Criteria Pollutants. Website: www.arb.ca.gov/aqd/almanac/almanac09/chap409.htm. Accessed April 1, 2019.
- California Air Resources Board (ARB). 2011. Regulation for Reducing Emissions from Consumer Products. Website: https://www.arb.ca.gov/consprod/regs/2015/article_2_final_1-22-15.pdf. Accessed April 1, 2019.
- California Air Resources Board (ARB). 2013a. California Air Resources Board. Ambient Air Quality Standards. Updated May 4, 2016. Website: www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed April 14, 2019.
- California Air Resources Board (ARB). 2013b. The California Almanac of Air Quality and Emissions—2013 Edition. Website: <http://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm>. Accessed April 1, 2019.
- California Air Resources Board (ARB). 2013c. Area Designation Maps/State and National. 2012 State Area Designations. Page last reviewed October 18, 2017. Website: www.arb.ca.gov/desig/adm/adm.htm. Accessed April 1, 2019.
- California Air Resources Board (ARB). 2015. On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation. Website: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed April 1, 2019.

- California Air Resources Board (ARB). 2016. Federal Standard Area Designations. Last Reviewed February 12, 2016. Website: <http://www.arb.ca.gov/desig/feddesig.htm>. Accessed April 1, 2019.
- California Air Resources Board (ARB). 2017. Historical Air Quality, Top 4 Summary. Website: <http://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed May 29, 2019.
- California Building Standards Commission (CBSC). 2013. California Building Standards Code, California Code of Regulations Title 24, Part 11. Website: <http://www.bsc.ca.gov/Home/CALGreen.aspx>. Accessed April 1, 2019.
- California Department of Public Health (CDPH). 2018. Valley Fever Cases Continued to Increase in California in 2017. Last Updated August 18, 2018. Website: <https://www.cdph.ca.gov/Programs/OPA/Pages/NR18-041.aspx>. Accessed April 17, 2019.
- California Environmental Protection Agency. 2002. Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. Website: <http://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf>. Accessed April 1, 2019. (Note: information is used in Table 1.)
- California Office of Environmental Health Hazards Assessment. 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February. Website: <http://oehha.ca.gov/media/downloads/crnrr/2015guidancemanual.pdf>. Accessed April 1, 2019.
- Centers for Disease Control and Prevention (CDC). 2010. Department of Health and Human Services, the National Institute for Occupational Safety and Health. Carbon Dioxide. Website: www.cdc.gov/niosh/npg/npgd0103.html. Accessed April 1, 2019.
- Centers for Disease Control and Prevention (CDC). 2012. Construction—Website: www.cdc.gov/niosh/topics/indoorenv/constructionieq.html. Accessed April 1, 2019.
- National Toxicology Program. 2011. Thirteenth Report on Carcinogens; U.S. Department of Health and Human Services, Public Health Service. Benzene. Website: <https://ntp.niehs.nih.gov/annualreport/2015/glance/roc/index.html>. Accessed April 1, 2019. (Note: information is used in Table 1.)
- National Toxicology Program. 2016. Report on Carcinogens, Fourteenth Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles. Website: <https://ntp.niehs.nih.gov/ntp/roc/content/profiles/dieselexhaustparticulates.pdf>. Accessed April 1, 2019. (Note: information is used in Table 1.)
- Occupational Safety and Health Administration (OSHA). 2003. United States Department of Labor. Safety and Health Topics: Methane. Website: www.osha.gov/dts/chemicalsampling/data/CH_250700.html. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2007. 2007 Ozone Plan. Website: www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_Ozone2007.htm. Accessed April 1, 2019.

- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2012. 2012 PM_{2.5} Plan. Website: http://www.valleyair.org/air_quality_plans/pm25plans2012.htm. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015a. Guidance for Assessing and Mitigating Air Quality Impacts. Revised March 19, 2015. Website: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed June 24, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015b. 2015 Plan for the 1997 PM_{2.5} Standard. Website: http://www.valleyair.org/Air_Quality_Plans/PM25Plans2015.htm. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2016. 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard. Website: http://www.valleyair.org/Air_Quality_Plans/docs/PM25-2016/2016-Plan.pdf. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2017a. Ambient Air Quality Standards & Valley Attainment Status. Website: <http://www.valleyair.org/aqinfo/attainment.htm>. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2017b. Adopted PM Plans. http://www.valleyair.org/Air_Quality_Plans/PM_Plans.htm. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018a. Ozone Plans. Website: http://valleyair.org/Air_Quality_Plans/Ozone_Plans.htm. Accessed April 1, 2019.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018b. 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards. Website: <http://valleyair.org/pmplans/>. Accessed April 1, 2019.
- South Coast Air Quality Management District (SCAQMD). 2017. User's Guide for CalEEMod Version 2016.3.2. Website: https://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2. Accessed April 17, 2019.
- Stanislaus County Health Services Agency. 2017. Press Release: Increase in Reported Valley Fever Cases in Stanislaus County in 2017. Website: <http://www.stancounty.com/news-room/news-releases/news-2017/pdf/press-release-20171130-hsa.pdf>. Accessed June 23, 2019.
- Stanislaus County. 2016. Stanislaus County General Plan. Website: <http://www.stancounty.com/planning/pl/gp/current/gp-introduction.pdf>. Accessed June 23, 2019.
- U.S. Environmental Protection Agency (EPA). 2003. Particle Pollution and your Health. EPA-452/F-03-001. Website: <https://www.epa.gov/pm-pollution>. Accessed April 1, 2019.
(Note: information is used in Table 1.)
- U.S. Environmental Protection Agency (EPA). 2009a. Ozone and your Health. EPA-456/F-09-001. Website: <http://www.epa.gov/airnow/ozone-c.pdf>. Accessed April 1, 2019.
(Note: information is used in Table 1.)
- U.S. Environmental Protection Agency (EPA). 2010a. Technology Transfer Network, Air Toxics Website. Page updated April 5, 2010. Health Effects Notebook for Hazardous Air Pollutants. Website: <https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants>. Accessed April 1, 2019. (Note: information is used in Table 1.)

- U.S. Environmental Protection Agency (EPA). 2010b. Clean Air Act Permitting of Greenhouse Gases: Guidance and Technical Information, Fact Sheet. Website: <https://www.epa.gov/sites/production/files/2015-12/documents/ghgpermittingtoolsfs.pdf>. Accessed April 1, 2019.
- U.S. Environmental Protection Agency (EPA). 2011a. Indoor Air Quality. Sources of Indoor Air Pollution—Organic Gases (Volatile Organic Compounds—VOCs). Website: <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality#Sources>. Accessed April 1, 2019. (Note: data is used in Table 1.)
- U.S. Environmental Protection Agency (EPA). 2012a. Fact Sheet, Final Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide. January 22, 2012. Website: <https://www.epa.gov/no2-pollution>. Accessed April 1, 2019. (Note: information is used in Table 1.)
- U.S. Environmental Protection Agency (EPA). 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: <http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf>. Accessed April 1, 2019.
- U.S. Environmental Protection Agency (EPA). 2014. Clean Air Act Requirements and History. Website: <https://www.epa.gov/clean-air-act-overview/clean-air-act-requirements-and-history>. Accessed April 1, 2019.
- U.S. Environmental Protection Agency (EPA). 2016a. Green Book Nonattainment Areas for Criteria Pollutants as of April 22, 2016. Website: <https://www.epa.gov/green-book>. Accessed: April 1, 2019.
- U.S. Environmental Protection Agency (EPA). 2016b. Final Rule for San Joaquin Valley Determination of Attainment of the 1-Hour Ozone National Ambient Air Quality Standards. Website: <https://www3.epa.gov/region9/air/actions/pdf/ca/sjv/epa-r09-oar-2016-0164-sjv-1hr-o2->
- U.S. Environmental Protection Agency (EPA). 2018. Fact Sheet, Final Rule: Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classification Approach. Website: <https://www.epa.gov/sites/production/files/2018-03/documents/fs-2015-ozone-implementation-03012018.pdf>. Accessed April 1, 2019.
- U.S. Geological Survey. 2000. Operational Guidelines (version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever). Website: <https://pubs.er.usgs.gov/publication/ofr00348>. Accessed April 1, 2019.
- U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188 Website: <http://pubs.usgs.gov/of/2011/1188/>. Accessed April 1, 2019.

Appendix A: Modeling Assumptions and Output

INTENTIONALLY LEFT BLANK

Modeling Assumptions

Modeling Assumptions Bronco Winery Expansion

Bronco Wine Company

Address

6342 Bystrum Avenue

APN

041-046-021

Stanislaus County

County Permit Required

Use Permit for Project Approved by 2017 Zone Change

Default Construction Schedule

Construction Start Date

1-Jan-19

Operational Date

1-Feb-19

Site Size (Acres)

117.93

		SF per Bldg	Total SF	Warehouse SF	Office/Admin
Proposed Buildings	14				
Warehouses	4	120,000	480,000	360,000	
Warehouses	3	44,843	134,529	134,529	
Office	1	13,000	13,000		13,000
Office	1	38,000	38,000		38,000
Employee Center	1	10,300	10,300		10,300
Admin Building (3 story)	1	30,000	30,000		30,000
Employee Center (2 story)	1	20,000	20,000		20,000
Filter Storage Bldg	1	16,000	16,000	16,000	
			741,829		
Pavillion - Shade Structure	1	2,264			
			621,829	510,529	111,300
Increase with Phase 1 and Future Phases			741,829	630,529	111,300

Other Construction Projects

Storm Water Drainage Basin

Complete

Rail Spur

Complete

Buildings in Developed Area

	SF	Acres
Building R	10,300	0.24
Building T	13,000	0.30
Building Y	20,000	0.46
Building Z (30,000 sf in 3 stories)	10,000	0.23
Building AA	16,000	0.37
		1.59

Phase 1 Disturbed Area (acres)	19.6	10.3
Phase 1 Bulding Area SF	120,000	2.75
Phase 1 Drainage Basin	3.8	
Phase 1 Parking	2.8	

Phase 2 and Later Disturbed Area	18.9	20.49
Phase 2 and Later Warehouse Area SF	510,529	11.72
Phase 2 New Bldgs in Existing Area	1.59	
Phase 2 Offices and Admin (SF)	111,300	2.56
Area covered by buildings		14.28
Area for parking and landscaping		6.22

	Current	With Project	Increase
Employees	396	426	30
Seasonal	90	90	0
Total Employees	486	516	30

Truck Trips From Expansion

Shipping Trucks/Day	25
Truck Trips/Day	50

Train Operations

Trains per Week	4
Train cars per train	5
Train cars per week	20

Trains per Year	208
Minutes per Train car dropoff	15
Minutes per Train car pickup	15
Minutes per day	30
Minutes per week	120
Hours per week	2
Hours per year	104

Fleet Mix Allocation Spreadsheets

Project Fleet Mix Allocation

Heavy Duty Truck Trips/Day (HHD) 25.0

Employee Trips 60

Land Use Assumptions	
LandUseType	LandUseSubType
Industrial	Warehouse
LandUseUnitArea: LandUseSizeMetric	
510,529 KSF	
0.12 Trips/KSF	

Project Trip Generation	
VehicleTripsLandUseSubType	VehicleTripsLandUseSizeWD_TR
Industrial	Light Industrial
Total Trips	1.68
	ST_TR
	1.68
	SU_TR
	1.68
	Daily Avg Tr LU SF
	1.68
	510.529
	857.68872
	857.68872

Adjusted Fleet Mix for No HDT Trucks	LDA	LDT1	LDT2	MDV	Total	Vehicles Removed	LHD1 Frac	LHD2 Frac	MHD Frac	HHD Frac	OBUS	UBUS	SBUS	Diff to Allocate
Default Fleet Mix	0.501303	0.035285	0.172289	0.136094	0.844971	Default Frac	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.000869	0.149098
Adjusted Fleet Mix	0.589760	0.041511	0.202690	0.160108	0.994069	Allocation Fraction								0.149098
					0.149098									

2020 CalEEMod Default Fleet Mix for Stanislaus County	
EmissionType	LDA
Default Fleet Mix	0.501303
Revised Fleet Mix	0.589760
	LDT1
	0.035285
	LDT2
	0.172289
	MDV
	0.136094
	LHD1
	0.027047
	LHD2
	0.006047
	MHD
	0.027345
	HHD
	0.084787
	OBUS
	0.00182
	UBUS
	0.001183
	MCY
	0.004865
	SBUS
	0.000869
	MH
	0.001067
	1.000001

Truck Trip CalEEMod Input	
HHD Trucks Trips/Day	Fleet Fraction
50	1.000000
50	
Truck Trips per KSF	0.10
Employee Trips	60
Trips/ksf	0.118
Truck Trip Length	50

Appendix A

Modeling Results

Locomotive Emission Calculations

Locomotive Emissions

Locomotive Activity Assumptions and Emission Factors

	Running Time	Idling Time
Southbound Trains Drop Empty Cars	10	5
Northbound Trains Add Full Cars	10	5
Total Time	20	10

Trains pass the spur and back into the spur to pick up and drop off train cars
Applicant states that entire dropoff process takes 10-15 minutes

Locomotive Diesel Emission Factors (grams/hour)

Throttle Setting	Switchers	GP-3x	GP-4x	GP-50	GP-60	GP-60	SD-7x	SD-7x	SD-7x	SD-7x	SD-90	Dash 7	Dash 8	Dash 9	Dash 9	Dash 9	Dash 9	C60-A	Total	Line Haul Average Rate g/hr
Idle	31.0	38.0	47.9	26.0	48.6	21.1	24.0	14.8	29.2	55.4	61.1	65.0	37.0	32.1	33.8	16.9	7.7	71.0	629.6	37.0
DB	56.0	72.0	80.0	64.1	98.5	25.4	4.8	15.1	31.8	38.3	50.1	108.5	147.5	53.9	50.7	88.4	42.0	83.9	1206.6	71.0
N1	23.0	31.0	35.7	51.3	48.7	37.8	41.0	36.8	37.1	38.3	50.1	108.2	86.0	54.2	56.1	62.1	69.3	68.6	912.1	53.7
N2	76.0	110.0	134.3	142.5	131.7	75.5	65.7	61.1	66.2	134.2	99.1	121.2	133.1	108.1	117.4	140.2	145.8	78.6	1864.7	109.7
N3	136.9	184.5	224.5	299.0	282.1	237.4	155.5	228.5	217.5	269.4	253.7	352.7	285.9	215.7	224.9	298.2	298.5	272.6	4300.6	253.0
N4	156.6	208.8	254.6	306.5	294.9	346.9	239.4	374.1	291.5	295.9	417.3	323.1	289.1	285.1	260.1	378.1	359.9	230.8	5156.1	303.3
N5	197.4	262.2	330.0	386.9	368.5	508.5	315.4	442.7	428.9	329.2	551.5	327.1	323.3	365.6	607.7	418.3	399.8	272.3	6637.9	390.5
N6	303.4	410.8	543.7	653.9	636.1	714.0	369.2	853.3	702.6	543.3	324.4	293.7	366.4	429.3	562.9	510.2	410.4	305.4	8629.6	507.6
N7	341.2	457.9	631.6	717.3	735.4	1113.4	469.9	1007.8	774.5	664.6	255.3	325.3	453.5	469.7	587.4	526.2	496.1	220.3	9906.2	582.7
N8	442.9	601.1	812.1	917.4	931.0	1304.9	582.6	1093.2	838.1	696.2	923.1	405.4	593.8	681.2	546.9	751.1	586.4	350.1	12614.6	742.0

EPA Regulatory Support Document, Locomotive Emissions Regulation, Appendix B, 12/17/1997, as tabulated by ARB and ENVIRON.
Emission Factors From the UP Stockton Health Risk Assessment, 2007

Emissions for Car Drop Offs SB

	Minutes	Hours	Emissions (grams/ dropoff or pickup)	Dropoffs	Emission g/day	Emissions lbs/day	Dropoffs and Pickups/ Week	Dropoffs and Pickups /Year	Emission lbs/Year	Emission at <100 M	Emissions at 100-250 M	Emissions at 250-500 M	Emission s at 500- 1000 M	Cancer Risk <100 M	Cancer Risk 100- 250 M	Cancer Risk 250- 500 M	Cancer Risk 500- 1,000 M
Idling	5	0.08	3.09	1	3.086	0.007	4	208	1.415			1.415		3.27	0.817	0.131	
N1	8	0.13	7.15	1	7.154	0.016	4	208	3.280			0.394	2.887	7.58	1.89	0.303	
N2	2	0.03	3.66	1	3.656	0.003	4	208	1.677				1.677	3.87	0.968	0.155	0.0426
Total	15					0.031			6.372								

Convert g to lbs 0.00220462

Emissions for Car Pick Ups NB

	Minutes	Hours	Emissions (grams/ dropoff or pickup)	Pickups	Emission g/day	Emissions lbs/day	Dropoffs and Pickups/ Week	Dropoffs and Pickups /Year	Emission lbs/Year	Emission at <100 M	Emissions at 100-250 M	Emissions at 250-500 M	Emission s at 500- 1000 M	Cancer Risk <100 M	Cancer Risk 100- 250 M	Cancer Risk 250- 500 M	Cancer Risk 500- 1,000 M
Idling	5	0.08	3.09	1	3.086	0.007	4	208	1.415	0.000	1.415	0.000	0.000	3.27	0.817	0.131	
N1	8	0.13	7.15	1	7.154	0.016	4	208	3.280	0.422	2.858	0.000	0.000	7.58	1.89	0.303	
N2	2	0.03	3.66	1	3.656	0.003	4	208	1.677	0.000	1.677	0.000	0.000	3.87	0.968	0.155	0.0426
Total	15					0.031			6.372								

Idling would occur when the train is coupling or decoupling the cars
Notch 1 is used for most slow speed maneuvering
Notch 2 is used for acceleration when leaving the site.

Boxcars Length	60
Average Boxcars/Train	10
Length of Train (feet)	600

Locomotive is located 600 feet from the dropoff and pickup points when idling
The boxcars will be positioned in on the spur in front of the warehouses.

Train Diesel Risk at Receptor 1

	Cancer Risk	Cancer Risk	Total	Chronic	Chronic	Total
	<100 M	100-250 M	Risk	Risk Score	Risk Score	Chronic Score
Northbound Trains						
Idling	0	0.817	0.817	0.00242	0	0.00242
N1	0.975	1.65	2.625	0.00289	0.00489	0.00778
N2	0	0.968	0.968	0	0.00287	0.00287
Total Risk Northbound Train			4.41			0.01307
Southbound Trains						
Idling	0.131	0	0.131	0.000388	0	0.000388
N1	0.0364	0.0734	0.1098	0.000108	0.000218	0.000326
N2	0	0.0426	0.0426	0	0.000126	0.000126
Total Risk SB Train			0.2834			0.00084
Total Risk from Trains			4.6934			0.01391

Offsite Train Travel by Distance Receptor 1

	<100 M	100-250 M	250-500	500+	Total
Northbound	170	1150			1320
Miles	0.03	0.22			0.25
Time in Each Radius	1.03	6.97			8.00
Fraction of Time in N1	0.13	0.87			2.00
Fraction of Time in N2		1.00			
Southbound			139	1181	1320
Miles			0.03	0.22	0.25
Time in Each Radius					10
Fraction of Time in N1			0.12	0.88	
Fraction of Time in N2				1	

Total Miles by Distance

Offsite Train Idling Receptor 1

	<100 M	100-250 M	250-500	500+	Total
Idle Pts by Distance		1	1		

Emissions by Distance from Receptor

	<100 M	100-250 M	250-500	500+
Train Idling		1.415	1.415	
Train Manuevering N1 (80%)				
Train Manuevering N2 (20%)				

Train Criteria Pollutant Emissions

	Pre-Tier	Tier 0	Tier 0+	Tier 1	Tier 1+	Tier 2	Tier 2+	Tier 3	Tier 3+	Wt Avg Emission Factor
Non-South Coast	2.95%	26.26%	4.08%	14.45%	6.57%	45.26%	0.00%	0.13%	0.00%	
Nox Emission Factor	13.00	8.60	7.20	6.70	6.70	4.95	4.95	4.95	1.00	
Weighted Avg Nox Factor	0.38	2.26	0.29	0.97	0.44	2.24	0.00	0.01	0.00	6.59
HC Emission Factor	0.48	0.48	0.30	0.47	0.29	0.26	0.13	0.13	0.04	
Weighted Avg HC Factor	0.01	0.13	0.01	0.07	0.02	0.12	0.00	0.00	0.00	0.36
CO Emission Factor	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	
Weighted Avg HC Factor	0.04	0.34	0.05	0.18	0.08	0.58	0.00	0.00	0.00	1.28
PM10 Emission Factor	0.32	0.32	0.20	0.32	0.20	0.18	0.08	0.08	0.02	
Weighted Avg HC Factor	0.01	0.08	0.01	0.05	0.01	0.08	0.00	0.00	0.00	0.24

Table 4 7 U.S. EPA Line-haul emission factors (g/bhp-hr)

	PM10	HC	NOx	CO
Pre-Tier	0.32	0.48	13	1.28
Tier 0	0.32	0.48	8.6	1.28
Tier 0+	0.2	0.3	7.2	1.28
Tier 1	0.32	0.47	6.7	1.28
Tier 1+	0.2	0.29	6.7	1.28
Tier 2	0.18	0.26	4.95	1.28
Tier 2+	0.08	0.13	4.95	1.28
Tier 3	0.08	0.13	4.95	1.28
Tier 4	0.015	0.04	1	1.28

Power Needed in Throttle Notch	bhp	Nox g/bhp-hr	Hours/Year	g/year	lbs/year	tons/year	Nox lbs/day
Idle	25	6.59	34.67	5,712.00	12.59	0.01	
DB 1	175	6.59	55.47	63,974.36	141.04	0.07	
DB 2	375	6.59	13.87	34,271.98	75.56	0.04	
			104			0.11	1.102
Idling	Minutes	Hours	Fraction				
N1	5	0.08	0.333				
N2	8	0.13	0.533				
Total	2	0.03	0.133				
	15	0.25	1.000				
Convert g to lbs	0.00220462						

Power Needed in Throttle Notch	bhp	HC g/bhp-hr	Hours/Year	g/year	lbs/year	tons/year	HC lbs/day
Idle	25	0.36	34.67	309.63	0.68	0.000	
N1	175	0.36	55.47	3,467.81	7.65	0.004	
N2	375	0.36	13.87	1,857.76	4.10	0.002	
			104			0.01	0.060

Power Needed in Throttle Notch	bhp	CO g/bhp-hr	Hours/Year	g/year	lbs/year	tons/year	CO lbs/day
Idle	25	0.36	34.67	309.63	0.68	0.000	
N1	175	0.36	55.47	3,467.81	7.65	0.004	
N2	375	0.36	13.87	1,857.76	4.10	0.002	
			104			0.006	0.060

Power Needed in Throttle Notch	bhp	PM10 g/bhp-hr	Hours/Year	g/year	lbs/year	tons/year	PM10 lbs/day
Idle	25	0.24	34.67	210.24	0.46	0.000	
N1	175	0.24	55.47	2,354.68	5.19	0.003	
N2	375	0.24	13.87	1,261.44	2.78	0.001	
			104			0.004	0.041

Train Op Days Per Year (4/week * 52) 208

Health Risk Prioritization

Health Risk Screening Analysis

Diesel Truck Trips

	KSF	Avg Daily Trips
Bronco Winery Expansion	510.529	50

Truck Assumptions

Trucks Onsite per Day	25
Trucks Onsite per Year	9125
Idling Events per Truck per day	1
Idling Time per Event (min.)	15
Idling Minutes/Year	136,875
Idling Hours/Year	2281.25

Average Travel Distance Onsite (ft)	2174
Measured with Google Earth Path Tool	

	Miles/Trip
Offsite Miles Estimate	0.25

		Distance Onsite (ft) one way	Idling Min/Year	Idling Hours/year	Idling Emissions (lbs/year)	Running Emissions (lbs/yr)	Total Truck Emissions (lbs/year)	Grand Total (lbs/yr)	Average Lbs/Day	Max Lbs/Day*	Max Hrs/day
Onsite Truck Travel Emissions	A	2174	136.875	2281.25	0.171	2.99	3.16	3.16	0.01	0.03	0.00108

*Max daily assumed to be 3 times the daily average

	g/hour
EMFAC 2017 Idling Factor 2019	0.034

Running Emission Calculations

	T7 Trucks		
	g/hour	grams/Year	Lbs/Year
Idling Emission Rate for Diesel	0.03400	77.6	0.17
g/lb conversion factor	0.00220		
HDT Onsite Running Emissions 5-15 mph	0.18021		
HDT Running Emissions Onroad 5-25 mph	0.14145		

EMFAC 2017 PM10 running emissions in 2020

	Miles/Day	Miles/Year	g/year	Lbs/Year
Onsite Travel	20.59	7,514	1354.185	2.985
Offsite Travel (.25 miles/trip)	12.5	4,563	645.382	1.423

Distance of Travel Onsite from Receptor 1	Feet	Fraction of Emissions at Each Distance	Emissions at Each Distance (lbs/year)	Cancer Risk	Chronic Risk
0-100 M					
100-250 M					
250-500 M	1627	0.748	2.234	0.206	0.0006
500-1000 M	547	0.252	0.751	0.019	0.0001
Total	2174		2.985	0.225	0.0007

Distance of Offsite Travel from Receptor 1	Feet	Fraction of Emissions at Each Distance	Emissions at Each Distance (lbs/year)	Cancer Risk	Chronic Risk
0-100 M					
100-250 M	223	0.167	0.237	0.137	0.0004
250-500 M	820	0.613	0.873	0.081	0.0002
500-1000 M	294	0.220	0.313	0.008	0.0000
Total	1337	1.000	1.423	0.226	0.0007

Distance of Onsite Idling from Receptor 1	Fraction of Emissions at Each Distance	Emissions at Each Distance (lbs/year)	Cancer Risk	Chronic Risk
0-100 M	0.000			
100-250 M	0.000			
250-500 M	1.000	0.171	0.016	0.0000468
500-1000 M	0.000			
Total	1.000	0.171	0.016	0.000

Cancer Risk Receptor 1 All Sources	Cancer Risk Score	Chronic Risk
Train Emissions	4.89	0.010
Truck Emissions Onsite Idling	0.02	0.000
Truck Emissions Onsite Travel	0.23	0.001
Truck Emissions Offsite Travel	0.23	0.001
	5.35	0.011

Running Emission Calculations

	Miles/year	Emission Factor (g/mi)	Emissions (grams/year)	Emission Lbs/year	Cancer Risk Score	Chronic Score	Max Lbs/Hr
Onsite Travel 0-100 M Worker Rec	0.0	0.18021	0.00	0.0000	1.69	0.00501	0
Onsite Travel 100-250 M Worker Rec	0.0	0.18021	0.00	0.0000	0.486	0.00144	0
Onsite Travel 250-500 M Worker Rec	14,477.6	0.18021	2609.07	5.7520	0.023	0.0000682	0.00196987
Onsite Emissions from HDT Travel	14,477.6	0.18021	2609.07	5.7520	2.199		
Offsite Emissions HDT within 1/4 mile	0	0.14145	0.00	0.0000			
Total							

Offsite Trucks Worker Receptor

	Trips	Distance (mi)	Miles/Day	Miles/Year	Emission Rate	Emissions g/year	Emission lbs/year
Incoming and Outgoing Northbound	50	0.25	12.5	4562.5	0.14145	645.38	1.42
Totals			12.5	4562.5			1.42

EMFAC 2017 Average Running Emissions

	PM10_RUNEX 5- 25 mph (g/mile)	PM10 RUNEX 5-15 MPH (g/mile)
5 MPH	0.22309	0.22309
10 MPH	0.18728	0.18728
15 MPH	0.13027	0.13027
20 MPH	0.09120	
25 MPH	0.07543	
Average	0.14145	0.18021

Emissions based on Aggregated model year for Stanislaus County in 2020
Idling Emissions from EMFAC 2017

Prioritization Calculator

Operating Hours hr/yr						
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute		Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.
		Score	Score	Score	Max Score	
0< R<100	1.000	3.27E+00	9.69E-03	0.00E+00	3.27E+00	
100≤R<250	0.250	8.17E-01	2.42E-03	0.00E+00	8.17E-01	
250≤R<500	0.040	1.31E-01	3.88E-04	0.00E+00	1.31E-01	
500≤R<1000	0.011	3.60E-02	1.07E-04	0.00E+00	3.60E-02	
1000≤R<1500	0.003	9.81E-03	2.91E-05	0.00E+00	9.81E-03	
1500≤R<2000	0.002	6.54E-03	1.94E-05	0.00E+00	6.54E-03	
2000<R	0.001	3.27E-03	9.69E-06	0.00E+00	3.27E-03	

Idling		Enter the unit's CAS# of the substances emitted and their amounts.			Prioritization score for each substance generated below. Totals on last row.		
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	1.42E+00	2.50E-04	3.23E-04	3.27E+00	9.69E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	3.27E+00	9.69E-03	0.00E+00

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00			
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute	Max Score
		Score	Score	Score	
0< R<100	1.000	9.75E-01	2.89E-03	0.00E+00	9.75E-01
100≤R<250	0.250	2.44E-01	7.23E-04	0.00E+00	2.44E-01
250≤R<500	0.040	3.90E-02	1.16E-04	0.00E+00	3.90E-02
500≤R<1000	0.011	1.07E-02	3.18E-05	0.00E+00	1.07E-02
1000≤R<1500	0.003	2.92E-03	8.67E-06	0.00E+00	2.92E-03
1500≤R<2000	0.002	1.95E-03	5.78E-06	0.00E+00	1.95E-03
2000<R	0.001	9.75E-04	2.89E-06	0.00E+00	9.75E-04

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

N1 <100 M		Enter the unit's CAS# of the substances emitted and their amounts.			Prioritization score for each substance generated below. Totals on last row.		
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	4.22E-01	2.50E-04	9.63E-05	9.75E-01	2.89E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	9.75E-01	2.89E-03	0.00E+00

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00				Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute		
		Score	Score	Score	Max Score	
0< R<100	1.000	6.60E+00	1.96E-02	0.00E+00	6.60E+00	
100≤R<250	0.250	1.65E+00	4.89E-03	0.00E+00	1.65E+00	
250≤R<500	0.040	2.64E-01	7.83E-04	0.00E+00	2.64E-01	
500≤R<1000	0.011	7.26E-02	2.15E-04	0.00E+00	7.26E-02	
1000≤R<1500	0.003	1.98E-02	5.87E-05	0.00E+00	1.98E-02	
1500≤R<2000	0.002	1.32E-02	3.92E-05	0.00E+00	1.32E-02	
2000<R	0.001	6.60E-03	1.96E-05	0.00E+00	6.60E-03	

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.	
Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00				
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.	
		Score	Score	Score		
0< R<100	1.000	9.10E-01	2.70E-03	0.00E+00		9.10E-01
100≤R<250	0.250	2.28E-01	6.75E-04	0.00E+00		2.28E-01
250≤R<500	0.040	3.64E-02	1.08E-04	0.00E+00		3.64E-02
500≤R<1000	0.011	1.00E-02	2.97E-05	0.00E+00		1.00E-02
1000≤R<1500	0.003	2.73E-03	8.10E-06	0.00E+00		2.73E-03
1500≤R<2000	0.002	1.82E-03	5.40E-06	0.00E+00		1.82E-03
2000<R	0.001	9.10E-04	2.70E-06	0.00E+00	9.10E-04	

N1 250-500 M S	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	3.94E-01	2.50E-04	9.00E-05	9.10E-01	2.70E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals				Totals	9.10E-01	2.70E-03	0.00E+00

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00						
Receptor Proximity and Proximity Factors		Cancer Score	Chronic Score	Acute Score	Max Score	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.		
0<R<100	1.000	6.67E+00	1.98E-02	0.00E+00	6.67E+00			
100≤R<250	0.250	1.67E+00	4.94E-03	0.00E+00	1.67E+00			
250≤R<500	0.040	2.67E-01	7.91E-04	0.00E+00	2.67E-01			
500≤R<1000	0.011	7.34E-02	2.18E-04	0.00E+00	7.34E-02			
1000≤R<1500	0.003	2.00E-02	5.93E-05	0.00E+00	2.00E-02			
1500≤R<2000	0.002	1.33E-02	3.95E-05	0.00E+00	1.33E-02			
2000<R	0.001	6.67E-03	1.98E-05	0.00E+00	6.67E-03			
		Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
N1 500-1000 M S								
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute	
Diesel engine exhaust, particulate matter (Diesel PM)	9901	2.89E+00	2.50E-04	6.59E-04	6.67E+00	1.98E-02	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E				

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00				Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute		
		Score	Score	Score	Max Score	
0< R<100	1.000	7.58E+00	2.25E-02	0.00E+00	7.58E+00	
100≤R<250	0.250	1.89E+00	5.62E-03	0.00E+00	1.89E+00	
250≤R<500	0.040	3.03E-01	8.99E-04	0.00E+00	3.03E-01	
500≤R<1000	0.011	8.33E-02	2.47E-04	0.00E+00	8.33E-02	
1000≤R<1500	0.003	2.27E-02	6.74E-05	0.00E+00	2.27E-02	
1500≤R<2000	0.002	1.52E-02	4.49E-05	0.00E+00	1.52E-02	
2000<R	0.001	7.58E-03	2.25E-05	0.00E+00	7.58E-03	

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.	
Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00				
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute		Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.
		Score	Score	Score	Max Score	
0< R<100	1.000	3.87E+00	1.15E-02	0.00E+00	3.87E+00	
100≤R<250	0.250	9.68E-01	2.87E-03	0.00E+00	9.68E-01	
250≤R<500	0.040	1.55E-01	4.59E-04	0.00E+00	1.55E-01	
500≤R<1000	0.011	4.26E-02	1.26E-04	0.00E+00	4.26E-02	
1000≤R<1500	0.003	1.16E-02	3.45E-05	0.00E+00	1.16E-02	
1500≤R<2000	0.002	7.75E-03	2.30E-05	0.00E+00	7.75E-03	
2000<R	0.001	3.87E-03	1.15E-05	0.00E+00	3.87E-03	

	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
N2							
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	1.68E+00	2.50E-04	3.83E-04	3.87E+00	1.15E-02	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals					3.87E+00	1.15E-02	0.00E+00

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00				
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.	
		Score	Score	Score		Max Score
0< R<100	1.000	5.47E-01	1.62E-03	0.00E+00		5.47E-01
100≤R<250	0.250	1.37E-01	4.06E-04	0.00E+00		1.37E-01
250≤R<500	0.040	2.19E-02	6.49E-05	0.00E+00		2.19E-02
500≤R<1000	0.011	6.02E-03	1.79E-05	0.00E+00		6.02E-03
1000≤R<1500	0.003	1.64E-03	4.87E-06	0.00E+00		1.64E-03
1500≤R<2000	0.002	1.09E-03	3.25E-06	0.00E+00		1.09E-03
2000<R	0.001	5.47E-04	1.62E-06	0.00E+00	5.47E-04	

[illegible]

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in grey areas.

October 13, 2016

Bronco Winery

Truck Offsite

250-500 M

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

CAS# Finder

1000

Prioritization Calculator

Operating Hours hr/yr	4,380.00						
Receptor Proximity and Proximity Factors	Cancer Score	Chronic Score	Acute Score	Max Score	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here if there are multiple processes use additional worksheets and sum the totals of the Max Scores.		
0< R<100 1.000	7.23E-01	2.14E-03	0.00E+00	7.23E-01			
100≤R<250 0.250	1.81E-01	5.36E-04	0.00E+00	1.81E-01			
250≤R<500 0.040	2.89E-02	8.58E-05	0.00E+00	2.89E-02			
500≤R<1000 0.011	7.95E-03	2.36E-05	0.00E+00	7.95E-03			
1000≤R<1500 0.003	2.17E-03	6.43E-06	0.00E+00	2.17E-03			
1500≤R<2000 0.002	1.45E-03	4.29E-06	0.00E+00	1.45E-03			
2000<R 0.001	7.23E-04	2.14E-06	0.00E+00	7.23E-04			
	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	3.13E-01	2.50E-04	7.15E-05	7.23E-01	2.14E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
	*			0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals					7.23E-01	2.14E-03	0.00E+00

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Bronco Winery Expansion		Prioritization Calculator	
Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in grey areas.		
Author or updater	Matthew Cegielski	Last Update	October 13, 2016
Facility:	Bronco Winery		
ID#:			
Project #:	Truck Onsite		
Unit and Process#	250-500 M		

Prioritization Calculator

Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in grey areas.

October 13, 2016

Bronco Winery

Truck Onsite

Truck Onsite

250-500 M

Operating Hours hr/yr		4,380.00						
Receptor Proximity and Proximity Factors		Cancer Score	Chronic Score	Acute Score	Max Score	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.		
0< R<100	1.000	5.15E+00	1.53E-02	0.00E+00	5.15E+00			
100≤R<250	0.250	1.29E+00	3.82E-03	0.00E+00	1.29E+00			
250≤R<500	0.040	2.06E-01	6.11E-04	0.00E+00	2.06E-01			
500≤R<1000	0.011	5.67E-02	1.68E-04	0.00E+00	5.67E-02			
1000≤R<1500	0.003	1.55E-02	4.58E-05	0.00E+00	1.55E-02			
1500≤R<2000	0.002	1.03E-02	3.05E-05	0.00E+00	1.03E-02			
2000<R	0.001	5.15E-03	1.53E-05	0.00E+00	5.15E-03			
		Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
250-500 M								
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute	
Diesel engine exhaust, particulate matter (Diesel PM)	9901	2.23E+00	2.50E-04	5.09E-04	5.15E+00	1.53E-02	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	
				0.00E+00	0.00E+00	0.00E+00	0.00E+00	

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00			
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute	Max Score
		Score	Score	Score	
0< R<100	1.000	1.73E+00	5.14E-03	0.00E+00	1.73E+00
100≤R<250	0.250	4.34E-01	1.29E-03	0.00E+00	4.34E-01
250≤R<500	0.040	6.94E-02	2.06E-04	0.00E+00	6.94E-02
500≤R<1000	0.011	1.91E-02	5.66E-05	0.00E+00	1.91E-02
1000≤R<1500	0.003	5.20E-03	1.54E-05	0.00E+00	5.20E-03
1500≤R<2000	0.002	3.47E-03	1.03E-05	0.00E+00	3.47E-03
2000<R	0.001	1.73E-03	5.14E-06	0.00E+00	1.73E-03

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

500-1000 M	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	7.51E-01	2.50E-04	1.71E-04	1.73E+00	5.14E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals				Totals	1.73E+00	5.14E-03	0.00E+00

Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Prioritization Calculator

Operating Hours hr/yr		4,380.00				
Receptor Proximity and Proximity Factors		Cancer	Chronic	Acute		Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.
		Score	Score	Score	Max Score	
0< R<100	1.000	3.95E-01	1.17E-03	0.00E+00	3.95E-01	
100≤R<250	0.250	9.88E-02	2.93E-04	0.00E+00	9.88E-02	
250≤R<500	0.040	1.58E-02	4.68E-05	0.00E+00	1.58E-02	
500≤R<1000	0.011	4.35E-03	1.29E-05	0.00E+00	4.35E-03	
1000≤R<1500	0.003	1.19E-03	3.51E-06	0.00E+00	1.19E-03	
1500≤R<2000	0.002	7.90E-04	2.34E-06	0.00E+00	7.90E-04	
2000<R	0.001	3.95E-04	1.17E-06	0.00E+00	3.95E-04	

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.	
Substance	CAS# Finder
Wood preservatives (containing arsenic and chromate)	1206

Emission Summary

Bronco Winery Expansion Emission Summary

Construction Emissions (Annual)	Tons/Year					
	ROG	NOX	CO	SO2	PM10	PM2.5
Phase 1 Construction 2017	0.66	5.09	4.35	0.01	0.73	0.36
Phase 1 Construction 2018	0.99	3.43	3.30	0.01	0.53	0.23
Phase 2 Construction 2019	0.20	1.98	1.36	0.00	0.26	0.15
Phase 2 Construction 2020	0.64	4.97	4.82	0.01	0.87	0.34
Phase 2 Construction 2021	4.60	1.65	1.71	0.01	0.30	0.12
	7.09	17.12	15.54	0.04	2.69	1.20
Highest Emissions Any Year	4.60	5.09	4.82	0.01	0.87	0.36

Operational Emissions

	2020	Tons/Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
Phase 1 Area		0.62	0.00	0.00	0.00	0.00	0.00
Phase 1 Energy		0.01	0.11	0.07	0.00	0.01	0.01
Phase 2 Area		2.64	0.00	0.00	0.00	0.00	0.00
Phase 2 Energy		0.06	0.52	0.44	0.00	0.04	0.04
Mobile (employee and visitor)		0.02	0.35	0.00	0.00	0.09	0.02
Mobile (Truck)		0.16	5.00	0.78	0.02	0.42	0.13
Train Operations		0.01	0.11	0.01	0.00	0.00	0.00
Total		3.51	6.09	1.29	0.02	0.56	0.20

Phase 1

Construction Daily

		Pounds/Day					
Maximum Daily Emission Summer		ROG	NOX	CO	SO2	PM10	PM2.5
	2017	7.27	68.06	50.55	0.12	11.24	7.18
	2018	52.36	44.02	45.92	0.12	7.13	3.05
Total		59.63	112.09	96.46	0.23	18.37	10.23

Construction Daily

		Pounds/Day					
Maximum Daily Emission Winter		ROG	NOX	CO	SO2	PM10	PM2.5
	2017	7.32	68.09	46.78	0.11	11.24	7.18
	2018	52.36	44.66	42.44	0.11	7.13	3.05
Total		59.67	112.75	89.22	0.22	18.37	10.23

Highest Emissions During Phase	52.36	68.09	50.55	0.12	11.24	7.18
--------------------------------	--------------	--------------	--------------	-------------	--------------	-------------

Phase 2

Construction Daily

		Pounds/Day					
Maximum Daily Emission Summer		ROG	NOX	CO	SO2	PM10	PM2.5
	2019	5.73	54.61	42.72	0.12	10.75	6.73
	2020	5.12	37.59	39.59	0.12	6.78	2.65
	2021	27.67	34.22	37.19	0.11	6.57	2.46
Total		38.52	126.42	119.50	0.35	24.10	11.84

ROG adjusted to reflect painting of no more than 2 bldgs on a single day of the 14 buildings.

Construction Daily		Pounds/Day					
Maximum Daily Emission Winter		ROG	NOX	CO	SO2	PM10	PM2.5
2019		5.74	54.63	39.51	0.11	10.75	6.73
2020		5.13	38.05	36.61	0.11	6.78	2.65
2021		27.67	34.58	34.45	0.11	6.58	2.46
Total		38.54	127.26	110.58	0.32	24.11	11.85

ROG adjusted to reflect painting of no more than 2 bldgs on a single day of the 14 buildings.

Highest Emissions During Phase	27.67	54.63	42.72	0.12	10.75	6.73
---------------------------------------	--------------	--------------	--------------	-------------	--------------	-------------

Phase 1 Operations		Pounds/Day					
Max Daily Emissions		ROG	NOX	CO	SO2	PM10	PM2.5
Area		0.66	5.09	4.35	0.01	0.85	0.42
Energy		0.99	3.43	3.30	0.01	0.53	0.23
Total		1.64	8.52	7.65	0.02	1.38	0.65

Operations		Pounds/Day					
Max Daily Emissions		ROG	NOX	CO	SO2	PM10	PM2.5
Area		14.47	0.00	0.06	0.00	0.00	0.00
Energy		0.32	2.87	2.41	0.02	0.22	0.22
Mobile (employee and visitor)		0.01	0.01	0.08	0.00	0.02	0.00
Mobile (Truck)		0.01	0.33	0.05	0.00	0.03	0.01
Train Operations		0.06	1.01	0.06		0.04	0.04
Total		14.86	4.22	2.66	0.02	0.31	0.27

Max Daily All Phases	16.50	12.74	10.31	0.04	1.69	0.92
-----------------------------	--------------	--------------	--------------	-------------	-------------	-------------

Mobile emissions include only emissions within 1/2 mile of the site. Employee commute trip is 14.7 miles in CalEEMod

.5 local miles/ 14.7 mile trip length 0.03

.5 local miles/50 mile trip length 0.013 Truck trips are 50 miles

CalEEMod Modeling Results

CalEEMod Output

Phase 1 Construction and Operations No HDT (Annual)

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Bronco Winery Phase 1 Construction and Area

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	120.00	1000sqft	2.75	120,000.00	0
Other Non-Asphalt Surfaces	3.80	Acre	3.80	165,528.00	0
Other Non-Asphalt Surfaces	10.30	Acre	10.30	448,668.00	0
Parking Lot	2.75	Acre	2.75	119,790.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Project Characteristics -

Land Use -

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Construction, area source, and energy only

Construction Off-road Equipment Mitigation -

Area Coating - Rule 4601 Architectural Coatings compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.6574	5.0912	4.3504	9.9100e-003	0.6359	0.2165	0.8524	0.2155	0.2024	0.4179	0.0000	908.7181	908.7181	0.1211	0.0000	911.7455
2018	0.9871	3.4259	3.3012	8.4800e-003	0.3949	0.1335	0.5284	0.1064	0.1256	0.2319	0.0000	774.7855	774.7855	0.0864	0.0000	776.9445
Maximum	0.9871	5.0912	4.3504	9.9100e-003	0.6359	0.2165	0.8524	0.2155	0.2024	0.4179	0.0000	908.7181	908.7181	0.1211	0.0000	911.7455

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.6574	5.0912	4.3504	9.9100e-003	0.5146	0.2165	0.7312	0.1585	0.2024	0.3609	0.0000	908.7178	908.7178	0.1211	0.0000	911.7451
2018	0.9871	3.4259	3.3012	8.4800e-003	0.3949	0.1335	0.5284	0.1064	0.1256	0.2319	0.0000	774.7852	774.7852	0.0864	0.0000	776.9443
Maximum	0.9871	5.0912	4.3504	9.9100e-003	0.5146	0.2165	0.7312	0.1585	0.2024	0.3609	0.0000	908.7178	908.7178	0.1211	0.0000	911.7451

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	11.76	0.00	8.78	17.70	0.00	8.77	0.00	0.00	0.00	0.00	0.00	0.00

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2017	6-30-2017	2.0959	2.0959
2	7-1-2017	9-30-2017	1.8358	1.8358
3	10-1-2017	12-31-2017	1.8618	1.8618
4	1-1-2018	3-31-2018	1.6405	1.6405
5	4-1-2018	6-30-2018	1.6373	1.6373
6	7-1-2018	9-30-2018	1.1046	1.1046
		Highest	2.0959	2.0959

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5677	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003
Energy	0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	455.7741	455.7741	0.0176	5.3000e-003	457.7943
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	22.8974	0.0000	22.8974	1.3532	0.0000	56.7273
Water						0.0000	0.0000		0.0000	0.0000	8.8038	43.6819	52.4857	0.9062	0.0218	81.6253
Total	0.5794	0.1064	0.0906	6.4000e-004	0.0000	8.0800e-003	8.0800e-003	0.0000	8.0800e-003	8.0800e-003	31.7012	499.4584	531.1596	2.2770	0.0271	596.1495

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5677	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003
Energy	0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	455.7741	455.7741	0.0176	5.3000e-003	457.7943
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	22.8974	0.0000	22.8974	1.3532	0.0000	56.7273
Water						0.0000	0.0000		0.0000	0.0000	8.8038	43.6819	52.4857	0.9062	0.0218	81.6253
Total	0.5794	0.1064	0.0906	6.4000e-004	0.0000	8.0800e-003	8.0800e-003	0.0000	8.0800e-003	8.0800e-003	31.7012	499.4584	531.1596	2.2770	0.0271	596.1495

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2017	4/14/2017	5	10	
2	Grading	Grading	4/15/2017	5/26/2017	5	30	
3	Building Construction	Building Construction	5/27/2017	7/20/2018	5	300	
4	Paving	Paving	7/21/2018	8/17/2018	5	20	
5	Architectural Coating	Architectural Coating	8/18/2018	9/14/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 16.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 180,000; Non-Residential Outdoor: 60,000; Striped Parking Area: 44,039 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	359.00	140.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	72.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	0.0248	0.2614	0.1173	1.9000e-004	0.0903	0.0144	0.1047	0.0497	0.0132	0.0629	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.1000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0975	1.0975	4.0000e-005	0.0000	1.0986
Total	7.7000e-004	6.0000e-004	6.1000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0975	1.0975	4.0000e-005	0.0000	1.0986

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	0.0248	0.2614	0.1173	1.9000e-004	0.0407	0.0144	0.0550	0.0223	0.0132	0.0356	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.1000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0975	1.0975	4.0000e-005	0.0000	1.0986
Total	7.7000e-004	6.0000e-004	6.1000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0975	1.0975	4.0000e-005	0.0000	1.0986

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0862	1.0191	0.5817	9.3000e-004		0.0461	0.0461		0.0424	0.0424	0.0000	86.3398	86.3398	0.0265	0.0000	87.0011
Total	0.0862	1.0191	0.5817	9.3000e-004	0.1301	0.0461	0.1762	0.0540	0.0424	0.0964	0.0000	86.3398	86.3398	0.0265	0.0000	87.0011

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	2.0100e-003	0.0203	4.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.6583	3.6583	1.5000e-004	0.0000	3.6620
Total	2.5700e-003	2.0100e-003	0.0203	4.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.6583	3.6583	1.5000e-004	0.0000	3.6620

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0862	1.0191	0.5817	9.3000e-004		0.0461	0.0461		0.0424	0.0424	0.0000	86.3397	86.3397	0.0265	0.0000	87.0010
Total	0.0862	1.0191	0.5817	9.3000e-004	0.0586	0.0461	0.1046	0.0243	0.0424	0.0667	0.0000	86.3397	86.3397	0.0265	0.0000	87.0010

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	2.0100e-003	0.0203	4.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.6583	3.6583	1.5000e-004	0.0000	3.6620
Total	2.5700e-003	2.0100e-003	0.0203	4.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.6583	3.6583	1.5000e-004	0.0000	3.6620

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2414	2.0580	1.4091	2.0900e-003		0.1386	0.1386		0.1301	0.1301	0.0000	186.3820	186.3820	0.0459	0.0000	187.5299
Total	0.2414	2.0580	1.4091	2.0900e-003		0.1386	0.1386		0.1301	0.1301	0.0000	186.3820	186.3820	0.0459	0.0000	187.5299

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0633	1.5638	0.3296	2.8900e-003	0.0650	0.0147	0.0796	0.0188	0.0140	0.0328	0.0000	274.2978	274.2978	0.0293	0.0000	275.0302
Worker	0.2384	0.1864	1.8861	3.7600e-003	0.3456	2.8000e-003	0.3484	0.0919	2.5800e-003	0.0944	0.0000	339.2756	339.2756	0.0138	0.0000	339.6211
Total	0.3017	1.7502	2.2158	6.6500e-003	0.4106	0.0175	0.4280	0.1106	0.0166	0.1272	0.0000	613.5734	613.5734	0.0431	0.0000	614.6513

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2414	2.0580	1.4091	2.0900e-003		0.1386	0.1386		0.1301	0.1301	0.0000	186.3817	186.3817	0.0459	0.0000	187.5297
Total	0.2414	2.0580	1.4091	2.0900e-003		0.1386	0.1386		0.1301	0.1301	0.0000	186.3817	186.3817	0.0459	0.0000	187.5297

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0633	1.5638	0.3296	2.8900e-003	0.0650	0.0147	0.0796	0.0188	0.0140	0.0328	0.0000	274.2978	274.2978	0.0293	0.0000	275.0302
Worker	0.2384	0.1864	1.8861	3.7600e-003	0.3456	2.8000e-003	0.3484	0.0919	2.5800e-003	0.0944	0.0000	339.2756	339.2756	0.0138	0.0000	339.6211
Total	0.3017	1.7502	2.2158	6.6500e-003	0.4106	0.0175	0.4280	0.1106	0.0166	0.1272	0.0000	613.5734	613.5734	0.0431	0.0000	614.6513

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1943	1.6958	1.2746	1.9500e-003		0.1087	0.1087		0.1022	0.1022	0.0000	172.3813	172.3813	0.0422	0.0000	173.4371
Total	0.1943	1.6958	1.2746	1.9500e-003		0.1087	0.1087		0.1022	0.1022	0.0000	172.3813	172.3813	0.0422	0.0000	173.4371

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0510	1.3781	0.2679	2.6900e-003	0.0608	0.0111	0.0718	0.0176	0.0106	0.0282	0.0000	255.6282	255.6282	0.0254	0.0000	256.2643
Worker	0.1976	0.1518	1.5407	3.4700e-003	0.3233	2.5500e-003	0.3259	0.0859	2.3500e-003	0.0883	0.0000	312.9504	312.9504	0.0116	0.0000	313.2399
Total	0.2486	1.5298	1.8086	6.1600e-003	0.3841	0.0136	0.3977	0.1035	0.0130	0.1164	0.0000	568.5786	568.5786	0.0370	0.0000	569.5041

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1943	1.6958	1.2746	1.9500e-003		0.1087	0.1087		0.1022	0.1022	0.0000	172.3810	172.3810	0.0422	0.0000	173.4369
Total	0.1943	1.6958	1.2746	1.9500e-003		0.1087	0.1087		0.1022	0.1022	0.0000	172.3810	172.3810	0.0422	0.0000	173.4369

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0510	1.3781	0.2679	2.6900e-003	0.0608	0.0111	0.0718	0.0176	0.0106	0.0282	0.0000	255.6282	255.6282	0.0254	0.0000	256.2643
Worker	0.1976	0.1518	1.5407	3.4700e-003	0.3233	2.5500e-003	0.3259	0.0859	2.3500e-003	0.0883	0.0000	312.9504	312.9504	0.0116	0.0000	313.2399
Total	0.2486	1.5298	1.8086	6.1600e-003	0.3841	0.0136	0.3977	0.1035	0.0130	0.1164	0.0000	568.5786	568.5786	0.0370	0.0000	569.5041

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	3.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0200	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.7000e-004	8.8800e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8036	1.8036	7.0000e-005	0.0000	1.8052
Total	1.1400e-003	8.7000e-004	8.8800e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8036	1.8036	7.0000e-005	0.0000	1.8052

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	3.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0200	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1400e-003	8.7030e-004	8.8800e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8036	1.8036	7.0000e-005	0.0000	1.8052
Total	1.1400e-003	8.7030e-004	8.8800e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.8036	1.8036	7.0000e-005	0.0000	1.8052

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	0.5176	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4700e-003	4.2000e-003	0.0426	1.0000e-004	8.9400e-003	7.0000e-005	9.0200e-003	2.3800e-003	7.0000e-005	2.4400e-003	0.0000	8.6572	8.6572	3.2000e-004	0.0000	8.6652
Total	5.4700e-003	4.2000e-003	0.0426	1.0000e-004	8.9400e-003	7.0000e-005	9.0200e-003	2.3800e-003	7.0000e-005	2.4400e-003	0.0000	8.6572	8.6572	3.2000e-004	0.0000	8.6652

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	0.5176	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4700e-003	4.2000e-003	0.0426	1.0000e-004	8.9400e-003	7.0000e-005	9.0200e-003	2.3800e-003	7.0000e-005	2.4400e-003	0.0000	8.6572	8.6572	3.2000e-004	0.0000	8.6652
Total	5.4700e-003	4.2000e-003	0.0426	1.0000e-004	8.9400e-003	7.0000e-005	9.0200e-003	2.3800e-003	7.0000e-005	2.4400e-003	0.0000	8.6572	8.6572	3.2000e-004	0.0000	8.6652

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247
Parking Lot	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247
Unrefrigerated Warehouse-No Rail	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	339.9959	339.9959	0.0154	3.1800e-003	341.3282
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	339.9959	339.9959	0.0154	3.1800e-003	341.3282
Natural Gas Mitigated	0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	115.7781	115.7781	2.2200e-003	2.1200e-003	116.4661
Natural Gas Unmitigated	0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	115.7781	115.7781	2.2200e-003	2.1200e-003	116.4661

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.1696e+006	0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	115.7781	115.7781	2.2200e-003	2.1200e-003	116.4661
Total		0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	115.7781	115.7781	2.2200e-003	2.1200e-003	116.4661

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.1696e+006	0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	115.7781	115.7781	2.2200e-003	2.1200e-003	116.4661
Total		0.0117	0.1064	0.0893	6.4000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	115.7781	115.7781	2.2200e-003	2.1200e-003	116.4661

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	41926.5	12.1969	5.5000e-004	1.1000e-004	12.2447
Unrefrigerated Warehouse-No Rail	1.1268e+006	327.7990	0.0148	3.0700e-003	329.0835
Total		339.9959	0.0154	3.1800e-003	341.3281

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	41926.5	12.1969	5.5000e-004	1.1000e-004	12.2447
Unrefrigerated Warehouse-No Rail	1.1268e+006	327.7990	0.0148	3.0700e-003	329.0835
Total		339.9959	0.0154	3.1800e-003	341.3281

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5677	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003
Unmitigated	0.5677	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0515					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003
Total	0.5677	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0515					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003
Total	0.5677	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4500e-003	2.4500e-003	1.0000e-005	0.0000	2.6100e-003

7.0 Water Detail

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.4857	0.9062	0.0218	81.6253
Unmitigated	52.4857	0.9062	0.0218	81.6253

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	27.75 / 0	52.4857	0.9062	0.0218	81.6253
Total		52.4857	0.9062	0.0218	81.6253

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	27.75 / 0	52.4857	0.9062	0.0218	81.6253
Total		52.4857	0.9062	0.0218	81.6253

8.0 Waste Detail

8.1 Mitigation Measures Waste

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	22.8974	1.3532	0.0000	56.7273
Unmitigated	22.8974	1.3532	0.0000	56.7273

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	112.8	22.8974	1.3532	0.0000	56.7273
Total		22.8974	1.3532	0.0000	56.7273

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	112.8	22.8974	1.3532	0.0000	56.7273
Total		22.8974	1.3532	0.0000	56.7273

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Annual

11.0 Vegetation

CalEEMod Output

Phase 2 Construction and Operations no HDT (Annual)

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Bronco Winery Later Phases Construction Area and Employee
Stanislaus County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.30	1000sqft	2.56	111,300.00	0
Unrefrigerated Warehouse-No Rail	510.53	1000sqft	11.72	510,529.00	0
Parking Lot	6.22	Acre	6.22	270,943.20	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Project Characteristics -

Land Use - Parking lot based on area of site minus the area of the buildings.

Construction Phase -

Trips and VMT - Demolition is for one house.

Demolition - Remove 2727 sf house with 1,790 sf patio cover

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Operational run for employees only based on increase of 30 employees for 60 trips/day.

Area Coating - Rule 4601 Architectural Coatings - use compliant coatings

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix - Employee vehicles only LDA, LDT1 and 2, MCY, and MH. Adjusted fleet mix.

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblFleetMix	HHD	0.08	0.00
tblFleetMix	LDA	0.50	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.17	0.20
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	UBUS	1.1830e-003	0.00
tblLandUse	LandUseSquareFeet	510,530.00	510,529.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	21.00	4.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.68	0.12
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	0.12

2.0 Emissions Summary

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2016	1.9812	1.3622	2.9200e-003	0.3084	0.0870	0.3953	0.1302	0.0805	0.2107	0.0000	263.8296	263.8296	0.0574	0.0000	265.2638
2020	0.6429	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8385	1,316.8385	0.1333	0.0000	1,320.1715
2021	2.1501	1.6488	1.7079	5.0900e-003	0.2457	0.0527	0.2983	0.0662	0.0494	0.1156	0.0000	462.3458	462.3458	0.0499	0.0000	463.5937
Maximum	2.1501	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8385	1,316.8385	0.1333	0.0000	1,320.1715

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2016	1.9812	1.3622	2.9200e-003	0.1740	0.0870	0.2609	0.0680	0.0805	0.1486	0.0000	263.8294	263.8294	0.0574	0.0000	265.2636
2020	0.6429	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8381	1,316.8381	0.1333	0.0000	1,320.1711
2021	2.1501	1.6488	1.7079	5.0900e-003	0.2457	0.0527	0.2983	0.0662	0.0494	0.1156	0.0000	462.3456	462.3456	0.0499	0.0000	463.5935
Maximum	2.1501	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8381	1,316.8381	0.1333	0.0000	1,320.1711

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	10.66	0.00	8.60	16.06	0.00	9.28	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2019	12-31-2019	1.7850	1.7850
2	1-1-2020	3-31-2020	1.4031	1.4031
3	4-1-2020	6-30-2020	1.3880	1.3880
4	7-1-2020	9-30-2020	1.4032	1.4032
5	10-1-2020	12-31-2020	1.4185	1.4185
6	1-1-2021	3-31-2021	1.2601	1.2601
7	4-1-2021	6-30-2021	2.5637	2.5637
		Highest	2.5637	2.5637

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6396	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Energy	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	2,287.5460	2,287.5460	0.0886	0.0265	2,297.6633
Mobile	0.0240	0.0348	0.3529	9.5000e-004	0.0874	5.9000e-004	0.0880	0.0232	5.5000e-004	0.0238	0.0000	85.4590	85.4590	2.8600e-003	0.0000	85.5305
Waste						0.0000	0.0000		0.0000	0.0000	118.4270	0.0000	118.4270	6.9988	0.0000	293.3978
Water						0.0000	0.0000		0.0000	0.0000	43.7309	229.3247	273.0556	4.5020	0.1082	417.8482
Total	2.7212	0.5585	0.7986	4.0900e-003	0.0874	0.0404	0.1279	0.0232	0.0404	0.0636	162.1578	2,602.3410	2,764.4988	11.5923	0.1347	3,094.4518

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6396	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Energy	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	2,287.5460	2,287.5460	0.0886	0.0265	2,297.6633
Mobile	0.0240	0.0348	0.3529	9.5000e-004	0.0874	5.9000e-004	0.0880	0.0232	5.5000e-004	0.0238	0.0000	85.4590	85.4590	2.8600e-003	0.0000	85.5305
Waste						0.0000	0.0000		0.0000	0.0000	118.4270	0.0000	118.4270	6.9988	0.0000	293.3978
Water						0.0000	0.0000		0.0000	0.0000	43.7309	229.3247	273.0556	4.5020	0.1082	417.8482
Total	2.7212	0.5585	0.7986	4.0900e-003	0.0874	0.0404	0.1279	0.0232	0.0404	0.0636	162.1578	2,602.3410	2,764.4988	11.5923	0.1347	3,094.4518

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	9/27/2019	5	20	
2	Site Preparation	Site Preparation	10/1/2019	10/14/2019	5	10	
3	Grading	Grading	10/15/2019	12/2/2019	5	35	
4	Building Construction	Building Construction	12/3/2019	5/3/2021	5	370	
5	Paving	Paving	5/4/2021	5/31/2021	5	20	
6	Architectural Coating	Architectural Coating	6/1/2021	6/28/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 932,744; Non-Residential Outdoor: 310,915; Striped Parking Area: 16,257 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	364.00	146.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2200e-003	0.0000	2.2200e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	0.0351	0.3578	0.2206	3.9000e-004	2.2200e-003	0.0180	0.0202	3.4000e-004	0.0167	0.0170	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	5.9000e-004	8.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1534	0.1534	1.0000e-005	0.0000	0.1536
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.7000e-004	7.8500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.7516	1.7516	6.0000e-005	0.0000	1.7531
Total	1.0500e-003	1.3600e-003	7.9300e-003	2.0000e-005	1.8900e-003	1.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.9050	1.9050	7.0000e-005	0.0000	1.9067

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-003	0.0000	1.0000e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	0.0351	0.3578	0.2206	3.9000e-004	1.0000e-003	0.0180	0.0190	1.5000e-004	0.0167	0.0169	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	5.9000e-004	8.0000e-005	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1534	0.1534	1.0000e-005	0.0000	0.1536
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.7000e-004	7.8500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.7516	1.7516	6.0000e-005	0.0000	1.7531
Total	1.0500e-003	1.3600e-003	7.9300e-003	2.0000e-005	1.8900e-003	1.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.9050	1.9050	7.0000e-005	0.0000	1.9067

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	0.0217	0.2279	0.1103	1.9000e-004	0.0903	0.0120	0.1023	0.0497	0.0110	0.0607	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519
Total	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	0.0217	0.2279	0.1103	1.9000e-004	0.0407	0.0120	0.0526	0.0223	0.0110	0.0333	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519
Total	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519

3.4 Grading - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4773	97.4773	0.0308	0.0000	98.2483
Total	0.0829	0.9541	0.5841	1.0900e-003	0.1518	0.0417	0.1935	0.0629	0.0384	0.1013	0.0000	97.4773	97.4773	0.0308	0.0000	98.2483

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905
Total	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0683	0.0000	0.0683	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482
Total	0.0829	0.9541	0.5841	1.0900e-003	0.0683	0.0417	0.1100	0.0283	0.0384	0.0667	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905
Total	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363
Total	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7900e-003	0.1969	0.0358	4.0000e-004	9.1800e-003	1.4100e-003	0.0106	2.6500e-003	1.3500e-003	4.0000e-003	0.0000	38.2816	38.2816	3.7300e-003	0.0000	38.3749
Worker	0.0262	0.0195	0.2001	4.9000e-004	0.0475	3.6000e-004	0.0478	0.0126	3.3000e-004	0.0130	0.0000	44.6311	44.6311	1.5000e-003	0.0000	44.6686
Total	0.0330	0.2164	0.2360	8.9000e-004	0.0567	1.7700e-003	0.0584	0.0153	1.6800e-003	0.0170	0.0000	82.9127	82.9127	5.2300e-003	0.0000	83.0434

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363
Total	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.5 Building Construction - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7900e-003	0.1969	0.0358	4.0000e-004	9.1800e-003	1.4100e-003	0.0106	2.6500e-003	1.3500e-003	4.0000e-003	0.0000	38.2816	38.2816	3.7300e-003	0.0000	38.3749
Worker	0.0262	0.0195	0.2001	4.9000e-004	0.0475	3.6000e-004	0.0478	0.0126	3.3000e-004	0.0130	0.0000	44.6311	44.6311	1.5000e-003	0.0000	44.6686
Total	0.0330	0.2164	0.2360	8.9000e-004	0.0567	1.7700e-003	0.0584	0.0153	1.6800e-003	0.0170	0.0000	82.9127	82.9127	5.2300e-003	0.0000	83.0434

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.2419	0.3836	4.9800e-003	0.1145	0.0113	0.1258	0.0331	0.0108	0.0439	0.0000	473.6485	473.6485	0.0430	0.0000	474.7233
Worker	0.2974	0.2147	2.2257	5.9800e-003	0.5924	4.3700e-003	0.5968	0.1574	4.0200e-003	0.1615	0.0000	539.7809	539.7809	0.0163	0.0000	540.1886
Total	0.3652	2.4566	2.6093	0.0110	0.7068	0.0157	0.7225	0.1905	0.0148	0.2053	0.0000	1,013.4294	1,013.4294	0.0593	0.0000	1,014.9119

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.2419	0.3836	4.9800e-003	0.1145	0.0113	0.1258	0.0331	0.0108	0.0439	0.0000	473.6485	473.6485	0.0430	0.0000	474.7233
Worker	0.2974	0.2147	2.2257	5.9800e-003	0.5924	4.3700e-003	0.5968	0.1574	4.0200e-003	0.1615	0.0000	539.7809	539.7809	0.0163	0.0000	540.1886
Total	0.3652	2.4566	2.6093	0.0110	0.7068	0.0157	0.7225	0.1905	0.0148	0.2053	0.0000	1,013.4294	1,013.4294	0.0593	0.0000	1,014.9119

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7622	100.7622	0.0243	0.0000	101.3700
Total	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7622	100.7622	0.0243	0.0000	101.3700

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.6789	0.1107	1.6400e-003	0.0380	1.7400e-003	0.0398	0.0110	1.6700e-003	0.0126	0.0000	155.7902	155.7902	0.0138	0.0000	156.1356
Worker	0.0912	0.0636	0.6740	1.9200e-003	0.1967	1.4100e-003	0.1981	0.0523	1.3000e-003	0.0536	0.0000	173.5702	173.5702	4.8700e-003	0.0000	173.6919
Total	0.1096	0.7425	0.7848	3.5600e-003	0.2347	3.1500e-003	0.2379	0.0633	2.9700e-003	0.0662	0.0000	329.3604	329.3604	0.0187	0.0000	329.8275

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7621	100.7621	0.0243	0.0000	101.3698
Total	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7621	100.7621	0.0243	0.0000	101.3698

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.6789	0.1107	1.6400e-003	0.0380	1.7400e-003	0.0398	0.0110	1.6700e-003	0.0126	0.0000	155.7902	155.7902	0.0138	0.0000	156.1356
Worker	0.0912	0.0636	0.6740	1.9200e-003	0.1967	1.4100e-003	0.1981	0.0523	1.3000e-003	0.0536	0.0000	173.5702	173.5702	4.8700e-003	0.0000	173.6919
Total	0.1096	0.7425	0.7848	3.5600e-003	0.2347	3.1500e-003	0.2379	0.0633	2.9700e-003	0.0662	0.0000	329.3604	329.3604	0.0187	0.0000	329.8275

3.6 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	8.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0207	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454
Total	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	8.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0207	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454
Total	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	1.9321	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078
Total	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.9299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	1.9321	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078
Total	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0240	0.0348	0.3529	9.5000e-004	0.0874	5.9000e-004	0.0880	0.0232	5.5000e-004	0.0238	0.0000	85.4590	85.4590	2.8600e-003	0.0000	85.5305
Unmitigated	0.0240	0.0348	0.3529	9.5000e-004	0.0874	5.9000e-004	0.0880	0.0232	5.5000e-004	0.0238	0.0000	85.4590	85.4590	2.8600e-003	0.0000	85.5305

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	61.26	61.26	61.26	236,690	236,690
Total	61.26	61.26	61.26	236,690	236,690

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Parking Lot	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Unrefrigerated Warehouse-No Rail	0.589760	0.041511	0.202690	0.160108	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.004865	0.000000	0.001067

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,717.4696	1,717.4696	0.0777	0.0161	1,724.1991
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,717.4696	1,717.4696	0.0777	0.0161	1,724.1991
Natural Gas Mitigated	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641
Natural Gas Unmitigated	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.45246e+006	7.8300e-003	0.0712	0.0598	4.3000e-004		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	77.5091	77.5091	1.4900e-003	1.4200e-003	77.9697
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	9.23036e+006	0.0498	0.4525	0.3801	2.7100e-003		0.0344	0.0344		0.0344	0.0344	0.0000	492.5674	492.5674	9.4400e-003	9.0300e-003	495.4945
Total		0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.45246e+006	7.8300e-003	0.0712	0.0598	4.3000e-004		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	77.5091	77.5091	1.4900e-003	1.4200e-003	77.9697
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	9.23036e+006	0.0498	0.4525	0.3801	2.7100e-003		0.0344	0.0344		0.0344	0.0344	0.0000	492.5674	492.5674	9.4400e-003	9.0300e-003	495.4945
Total		0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.01506e+006	295.2914	0.0134	2.7600e-003	296.4485
Parking Lot	94830.1	27.5872	1.2500e-003	2.6000e-004	27.6953
Unrefrigerated Warehouse-No Rail	4.79387e+006	1,394.5910	0.0631	0.0131	1,400.0554
Total		1,717.4696	0.0777	0.0161	1,724.1991

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.01506e+006	295.2914	0.0134	2.7600e-003	296.4485
Parking Lot	94830.1	27.5872	1.2500e-003	2.6000e-004	27.6953
Unrefrigerated Warehouse-No Rail	4.79387e+006	1,394.5910	0.0631	0.0131	1,400.0554
Total		1,717.4696	0.0777	0.0161	1,724.1991

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6396	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Unmitigated	2.6396	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1930					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0030
Consumer Products	2.4461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0030
Landscaping	5.5000e-004	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Total	2.6396	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1930					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Total	2.6396	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120

7.0 Water Detail

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	273.0556	4.5020	0.1082	417.8482
Unmitigated	273.0556	4.5020	0.1082	417.8482

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7818 / 12.1243	49.7596	0.6466	0.0156	70.5803
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	118.06 / 0	223.2960	3.8554	0.0926	347.2679
Total		273.0556	4.5020	0.1082	417.8482

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7818 / 12.1243	49.7596	0.6466	0.0156	70.5803
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	118.06 / 0	223.2960	3.8554	0.0926	347.2679
Total		273.0556	4.5020	0.1082	417.8482

8.0 Waste Detail

8.1 Mitigation Measures Waste

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	118.4270	6.9988	0.0000	293.3978
Unmitigated	118.4270	6.9988	0.0000	293.3978

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.51	21.0116	1.2418	0.0000	52.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	479.9	97.4154	5.7571	0.0000	241.3424
Total		118.4270	6.9988	0.0000	293.3978

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.51	21.0116	1.2418	0.0000	52.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	479.9	97.4154	5.7571	0.0000	241.3424
Total		118.4270	6.9988	0.0000	293.3978

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Annual

11.0 Vegetation

CalEEMod Output

All Phases Operations HDT Only (Annual)

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Bronco Winery Expansion Truck Only Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.30	1000sqft	2.56	111,300.00	0
Unrefrigerated Warehouse-No Rail	510.53	1000sqft	11.72	510,529.00	0
Parking Lot	6.22	Acre	6.22	270,943.20	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking lot based on area of site minus the area of the buildings.

Construction Phase -

Demolition - Remove 2727 sf house with 1,790 sf patio cover

Architectural Coating - Rule 4601 Architectural Coatings

Fleet Mix - Truck Only Run

Vehicle Trips - 50 new truck trips per day with expansion Trip length 50 miles Air District default value

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.08	0.00
tblFleetMix	HHD	0.08	1.00
tblFleetMix	LDA	0.50	0.00
tblFleetMix	LDA	0.50	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	MCY	4.8650e-003	0.00
tblFleetMix	MCY	4.8650e-003	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	1.0670e-003	0.00
tblFleetMix	MH	1.0670e-003	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	UBUS	1.1830e-003	0.00
tblFleetMix	UBUS	1.1830e-003	0.00

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

tblLandUse	LandUseSquareFeet	510,530.00	510,529.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CC_TL	6.60	50.00
tblVehicleTrips	CNW_TL	6.60	50.00
tblVehicleTrips	CW_TL	14.70	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	0.10
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.68	0.10
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	0.10

2.0 Emissions Summary

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2016	1.9837	1.3625	2.9300e-003	0.3085	0.0870	0.3955	0.1302	0.0805	0.2107	0.0000	264.4815	264.4815	0.0574	0.0000	265.9167
2020	0.6429	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8385	1,316.8385	0.1333	0.0000	1,320.1715
2021	4.6000	1.6488	1.7079	5.0900e-003	0.2457	0.0527	0.2983	0.0662	0.0494	0.1156	0.0000	462.3458	462.3458	0.0499	0.0000	463.5937
Maximum	4.6000	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8385	1,316.8385	0.1333	0.0000	1,320.1715

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2016	1.9837	1.3625	2.9300e-003	0.3085	0.0870	0.3955	0.1302	0.0805	0.2107	0.0000	264.4813	264.4813	0.0574	0.0000	265.9165
2020	0.6429	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8381	1,316.8381	0.1333	0.0000	1,320.1711
2021	4.6000	1.6488	1.7079	5.0900e-003	0.2457	0.0527	0.2983	0.0662	0.0494	0.1156	0.0000	462.3456	462.3456	0.0499	0.0000	463.5935
Maximum	4.6000	4.9699	4.8164	0.0145	0.7069	0.1620	0.8688	0.1905	0.1524	0.3429	0.0000	1,316.8381	1,316.8381	0.1333	0.0000	1,320.1711

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2019	12-31-2019	1.7850	1.7850
2	1-1-2020	3-31-2020	1.4031	1.4031
3	4-1-2020	6-30-2020	1.3880	1.3880
4	7-1-2020	9-30-2020	1.4032	1.4032
5	10-1-2020	12-31-2020	1.4185	1.4185
6	1-1-2021	3-31-2021	1.2601	1.2601
7	4-1-2021	6-30-2021	5.0136	5.0136
		Highest	5.0136	5.0136

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8846	5.0030e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Energy	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	2,287,546 0	2,287,546 0	0.0886	0.0265	2,297,663 3
Mobile	0.1552	5.0017	0.7763	0.0168	0.3956	0.0208	0.4164	0.1086	0.0199	0.1285	0.0000	1,595,404 2	1,595,404 2	0.0510	0.0000	1,596,678 4
Waste						0.0000	0.0000		0.0000	0.0000	118.4270	0.0000	118.4270	6.9988	0.0000	293.3978
Water						0.0000	0.0000		0.0000	0.0000	43.7309	229.3247	273.0556	4.5020	0.1082	417.8482
Total	3.0974	5.5254	1.2220	0.0199	0.3956	0.0606	0.4562	0.1086	0.0597	0.1683	162.1578	4,112.286 1	4,274.443 9	11.6404	0.1347	4,605.599 6

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8846	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Energy	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	2,287.5460	2,287.5460	0.0886	0.0265	2,297.6633
Mobile	0.1552	5.0017	0.7763	0.0168	0.3956	0.0208	0.4164	0.1086	0.0199	0.1285	0.0000	1,595.4042	1,595.4042	0.0510	0.0000	1,596.6784
Waste						0.0000	0.0000		0.0000	0.0000	118.4270	0.0000	118.4270	6.9988	0.0000	293.3978
Water						0.0000	0.0000		0.0000	0.0000	43.7309	229.3247	273.0556	4.5020	0.1082	417.8482
Total	3.0974	5.5254	1.2220	0.0199	0.3956	0.0606	0.4562	0.1086	0.0597	0.1683	162.1578	4,112.2861	4,274.4439	11.6404	0.1347	4,605.5996

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	9/27/2019	5	20	
2	Site Preparation	Site Preparation	10/1/2019	10/14/2019	5	10	
3	Grading	Grading	10/15/2019	12/2/2019	5	35	
4	Building Construction	Building Construction	12/3/2019	5/3/2021	5	370	
5	Paving	Paving	5/4/2021	5/31/2021	5	20	
6	Architectural Coating	Architectural Coating	6/1/2021	6/28/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 932,744; Non-Residential Outdoor: 310,915; Striped Parking Area: 16,257 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	21.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	364.00	146.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NCx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2200e-003	0.0000	2.2200e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	0.0351	0.3578	0.2206	3.9000e-004	2.2200e-003	0.0180	0.0202	3.4000e-004	0.0167	0.0170	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	3.1200e-003	4.4000e-004	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.8053	0.8053	5.0000e-005	0.0000	0.8066
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.7000e-004	7.8500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.7516	1.7516	6.0000e-005	0.0000	1.7531
Total	1.1200e-003	3.8900e-003	8.2900e-003	3.0000e-005	2.0400e-003	2.0000e-005	2.0700e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	2.5569	2.5569	1.1000e-004	0.0000	2.5597

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2200e-003	0.0000	2.2200e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	0.0351	0.3578	0.2206	3.9000e-004	2.2200e-003	0.0180	0.0202	3.4000e-004	0.0167	0.0170	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	3.1200e-003	4.4000e-004	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.8053	0.8053	5.0000e-005	0.0000	0.8066
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.7000e-004	7.8500e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.7516	1.7516	6.0000e-005	0.0000	1.7531
Total	1.1200e-003	3.8900e-003	8.2900e-003	3.0000e-005	2.0400e-003	2.0000e-005	2.0700e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	2.5569	2.5569	1.1000e-004	0.0000	2.5597

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	0.0217	0.2279	0.1103	1.9000e-004	0.0903	0.0120	0.1023	0.0497	0.0110	0.0607	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519
Total	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	0.0217	0.2279	0.1103	1.9000e-004	0.0903	0.0120	0.1023	0.0497	0.0110	0.0607	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519
Total	6.2000e-004	4.6000e-004	4.7100e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	1.0510	1.0510	4.0000e-005	0.0000	1.0519

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4773	97.4773	0.0308	0.0000	98.2433
Total	0.0829	0.9541	0.5841	1.0900e-003	0.1518	0.0417	0.1935	0.0629	0.0384	0.1013	0.0000	97.4773	97.4773	0.0308	0.0000	98.2433

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905
Total	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0829	0.9541	0.5841	1.0900e-003		0.0417	0.0417		0.0384	0.0384	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482
Total	0.0829	0.9541	0.5841	1.0900e-003	0.1518	0.0417	0.1935	0.0629	0.0384	0.1013	0.0000	97.4772	97.4772	0.0308	0.0000	98.2482

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905
Total	2.4000e-003	1.7900e-003	0.0183	5.0000e-005	4.3500e-003	3.0000e-005	4.3800e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	4.0871	4.0871	1.4000e-004	0.0000	4.0905

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363
Total	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7900e-003	0.1969	0.0358	4.0000e-004	9.1800e-003	1.4100e-003	0.0106	2.6500e-003	1.3500e-003	4.0000e-003	0.0000	38.2816	38.2816	3.7300e-003	0.0000	38.3749
Worker	0.0262	0.0195	0.2001	4.9000e-004	0.0475	3.6000e-004	0.0478	0.0126	3.3000e-004	0.0130	0.0000	44.6311	44.6311	1.5000e-003	0.0000	44.6686
Total	0.0330	0.2164	0.2360	8.9000e-004	0.0567	1.7700e-003	0.0584	0.0153	1.6800e-003	0.0170	0.0000	82.9127	82.9127	5.2300e-003	0.0000	83.0434

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363
Total	0.0248	0.2213	0.1802	2.8000e-004		0.0135	0.0135		0.0127	0.0127	0.0000	24.6859	24.6859	6.0100e-003	0.0000	24.8363

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7900e-003	0.1969	0.0358	4.0000e-004	9.1800e-003	1.4100e-003	0.0106	2.6500e-003	1.3500e-003	4.0000e-003	0.0000	38.2816	38.2816	3.7300e-003	0.0000	38.3749
Worker	0.0262	0.0195	0.2001	4.9000e-004	0.0475	3.6000e-004	0.0478	0.0126	3.3000e-004	0.0130	0.0000	44.6311	44.6311	1.5000e-003	0.0000	44.6686
Total	0.0330	0.2164	0.2360	8.9000e-004	0.0567	1.7700e-003	0.0584	0.0153	1.6800e-003	0.0170	0.0000	82.9127	82.9127	5.2300e-003	0.0000	83.0434

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.2419	0.3836	4.9800e-003	0.1145	0.0113	0.1258	0.0331	0.0108	0.0439	0.0000	473.6485	473.6485	0.0430	0.0000	474.7233
Worker	0.2974	0.2147	2.2257	5.9800e-003	0.5924	4.3700e-003	0.5968	0.1574	4.0200e-003	0.1615	0.0000	539.7809	539.7809	0.0163	0.0000	540.1886
Total	0.3652	2.4566	2.6093	0.0110	0.7068	0.0157	0.7225	0.1905	0.0148	0.2053	0.0000	1,013.4294	1,013.4294	0.0593	0.0000	1,014.9119

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592
Total	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4087	303.4087	0.0740	0.0000	305.2592

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0677	2.2419	0.3836	4.9800e-003	0.1145	0.0113	0.1258	0.0331	0.0108	0.0439	0.0000	473.6485	473.6485	0.0430	0.0000	474.7233
Worker	0.2974	0.2147	2.2257	5.9800e-003	0.5924	4.3700e-003	0.5968	0.1574	4.0200e-003	0.1615	0.0000	539.7809	539.7809	0.0163	0.0000	540.1886
Total	0.3652	2.4566	2.6093	0.0110	0.7068	0.0157	0.7225	0.1905	0.0148	0.2053	0.0000	1,013.4294	1,013.4294	0.0593	0.0000	1,014.9119

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7622	100.7622	0.0243	0.0000	101.3700
Total	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7622	100.7622	0.0243	0.0000	101.3700

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.6789	0.1107	1.6400e-003	0.0380	1.7400e-003	0.0398	0.0110	1.6700e-003	0.0126	0.0000	155.7902	155.7902	0.0138	0.0000	156.1356
Worker	0.0912	0.0636	0.6740	1.9200e-003	0.1967	1.4100e-003	0.1981	0.0523	1.3000e-003	0.0536	0.0000	173.5702	173.5702	4.8700e-003	0.0000	173.6919
Total	0.1096	0.7425	0.7848	3.5600e-003	0.2347	3.1500e-003	0.2379	0.0633	2.9700e-003	0.0662	0.0000	329.3604	329.3604	0.0187	0.0000	329.8275

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7621	100.7621	0.0243	0.0000	101.3698
Total	0.0827	0.7583	0.7210	1.1700e-003		0.0417	0.0417		0.0392	0.0392	0.0000	100.7621	100.7621	0.0243	0.0000	101.3698

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0183	0.6789	0.1107	1.6400e-003	0.0380	1.7400e-003	0.0398	0.0110	1.6700e-003	0.0126	0.0000	155.7902	155.7902	0.0138	0.0000	156.1356
Worker	0.0912	0.0636	0.6740	1.9200e-003	0.1967	1.4100e-003	0.1981	0.0523	1.3000e-003	0.0536	0.0000	173.5702	173.5702	4.8700e-003	0.0000	173.6919
Total	0.1096	0.7425	0.7848	3.5600e-003	0.2347	3.1500e-003	0.2379	0.0633	2.9700e-003	0.0662	0.0000	329.3604	329.3604	0.0187	0.0000	329.8275

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	8.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0207	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454
Total	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	8.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0207	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454
Total	8.6000e-004	6.0000e-004	6.3900e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6443	1.6443	5.0000e-005	0.0000	1.6454

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.3798					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	4.3820	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078
Total	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.3798					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	4.3820	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078
Total	4.2100e-003	2.9300e-003	0.0311	9.0000e-005	9.0700e-003	6.0000e-005	9.1300e-003	2.4100e-003	6.0000e-005	2.4700e-003	0.0000	8.0022	8.0022	2.2000e-004	0.0000	8.0078

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1552	5.0017	0.7763	0.0168	0.3956	0.0208	0.4164	0.1086	0.0199	0.1285	0.0000	1,595,404 2	1,595,404 2	0.0510	0.0000	1,596,678 4
Unmitigated	0.1552	5.0017	0.7763	0.0168	0.3956	0.0208	0.4164	0.1086	0.0199	0.1285	0.0000	1,595,404 2	1,595,404 2	0.0510	0.0000	1,596,678 4

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	51.05	51.05	51.05	929,165	929,165
Total	51.05	51.05	51.05	929,165	929,165

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,717.4696	1,717.4696	0.0777	0.0161	1,724.1991
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,717.4696	1,717.4696	0.0777	0.0161	1,724.1991
Natural Gas Mitigated	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641
Natural Gas Unmitigated	0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.45246e+006	7.8300e-003	0.0712	0.0598	4.3000e-004		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	77.5091	77.5091	1.4900e-003	1.4200e-003	77.9697
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	9.23036e+006	0.0498	0.4525	0.3801	2.7100e-003		0.0344	0.0344		0.0344	0.0344	0.0000	492.5674	492.5674	9.4400e-003	9.0300e-003	495.4945
Total		0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.45246e+006	7.8300e-003	0.0712	0.0598	4.3000e-004		5.4100e-003	5.4100e-003		5.4100e-003	5.4100e-003	0.0000	77.5091	77.5091	1.4900e-003	1.4200e-003	77.9697
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	9.23036e+006	0.0498	0.4525	0.3801	2.7100e-003		0.0344	0.0344		0.0344	0.0344	0.0000	492.5674	492.5674	9.4400e-003	9.0300e-003	495.4945
Total		0.0576	0.5237	0.4399	3.1400e-003		0.0398	0.0398		0.0398	0.0398	0.0000	570.0765	570.0765	0.0109	0.0105	573.4641

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.01506e+006	295.2914	0.0134	2.7600e-003	296.4485
Parking Lot	94830.1	27.5872	1.2500e-003	2.6000e-004	27.6953
Unrefrigerated Warehouse-No Rail	4.79387e+006	1,394.5910	0.0631	0.0131	1,400.0554
Total		1,717.4696	0.0777	0.0161	1,724.1991

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.01506e+006	295.2914	0.0134	2.7600e-003	296.4485
Parking Lot	94830.1	27.5872	1.2500e-003	2.6000e-004	27.6953
Unrefrigerated Warehouse-No Rail	4.79387e+006	1,394.5910	0.0631	0.0131	1,400.0554
Total		1,717.4696	0.0777	0.0161	1,724.1991

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8846	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Unmitigated	2.8846	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Total	2.8846	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120
Total	2.8846	5.0000e-005	5.8100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0112	0.0112	3.0000e-005	0.0000	0.0120

7.0 Water Detail

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	273.0556	4.5020	0.1082	417.8482
Unmitigated	273.0556	4.5020	0.1082	417.8482

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7818 / 12.1243	49.7596	0.6466	0.0156	70.5803
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	118.06 / 0	223.2960	3.8554	0.0926	347.2679
Total		273.0556	4.5020	0.1082	417.8482

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	19.7818 / 12.1243	49.7596	0.6466	0.0156	70.5803
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	118.06 / 0	223.2960	3.8554	0.0926	347.2679
Total		273.0556	4.5020	0.1082	417.8482

8.0 Waste Detail

8.1 Mitigation Measures Waste

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	118.4270	6.9988	0.0000	293.3978
Unmitigated	118.4270	6.9988	0.0000	293.3978

8.2 Waste by Land UseUnmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.51	21.0116	1.2418	0.0000	52.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	479.9	97.4154	5.7571	0.0000	241.3424
Total		118.4270	6.9988	0.0000	293.3978

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	103.51	21.0116	1.2418	0.0000	52.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	479.9	97.4154	5.7571	0.0000	241.3424
Total		118.4270	6.9988	0.0000	293.3978

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

Bronco Winery Expansion Truck Only - Stanislaus County, Annual

11.0 Vegetation

CalEEMod Output

Phase 1 Construction and Operation no HDT (Summer Daily)

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

Bronco Winery Phase 1 Construction and Area

Stanislaus County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	120.00	1000sqft	2.75	120,000.00	0
Other Non-Asphalt Surfaces	3.80	Acre	3.80	165,528.00	0
Other Non-Asphalt Surfaces	10.30	Acre	10.30	448,668.00	0
Parking Lot	2.75	Acre	2.75	119,790.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

Project Characteristics -

Land Use -

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Construction, area source, and energy only

Construction Off-road Equipment Mitigation -

Area Coating - Rule 4601 Architectural Coatings compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.2747	68.0624	50.5458	0.1179	18.2962	3.0747	21.1766	9.9917	2.8288	12.6416	0.0000	11,891.3806	11,891.3806	1.9562	0.0000	11,923.0803
2018	52.3590	44.0226	45.9163	0.1170	5.4428	1.6867	7.1295	1.4628	1.5875	3.0503	0.0000	11,774.9799	11,774.9799	1.2060	0.0000	11,805.1288
Maximum	52.3590	68.0624	50.5458	0.1179	18.2962	3.0747	21.1766	9.9917	2.8288	12.6416	0.0000	11,891.3806	11,891.3806	1.9562	0.0000	11,923.0803

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.2747	68.0624	50.5458	0.1179	8.3597	3.0747	11.2401	4.5298	2.8288	7.1797	0.0000	11,891.3806	11,891.3806	1.9562	0.0000	11,923.0803
2018	52.3590	44.0226	45.9163	0.1170	5.4428	1.6867	7.1295	1.4628	1.5875	3.0503	0.0000	11,774.9799	11,774.9799	1.2060	0.0000	11,805.1288
Maximum	52.3590	68.0624	50.5458	0.1179	8.3597	3.0747	11.2401	4.5298	2.8288	7.1797	0.0000	11,891.3806	11,891.3806	1.9562	0.0000	11,923.0803

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	41.86	0.00	35.10	47.68	0.00	34.81	0.00	0.00	0.00	0.00	0.00	0.00

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Energy	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.1754	0.5829	0.5037	3.5000e-003	0.0000	0.0443	0.0443	0.0000	0.0443	0.0443		699.3370	699.3370	0.0135	0.0128	703.4946

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Energy	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.1754	0.5829	0.5037	3.5000e-003	0.0000	0.0443	0.0443	0.0000	0.0443	0.0443		699.3370	699.3370	0.0135	0.0128	703.4946

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2017	4/14/2017	5	10	
2	Grading	Grading	4/15/2017	5/26/2017	5	30	
3	Building Construction	Building Construction	5/27/2017	7/20/2018	5	300	
4	Paving	Paving	7/21/2018	8/17/2018	5	20	
5	Architectural Coating	Architectural Coating	8/18/2018	9/14/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 16.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 180,000; Non-Residential Outdoor: 60,000; Striped Parking Area: 44,039 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	359.00	140.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	72.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.950 0	3,894.950 0	1.1934		3,924.785 2
Total	4.9608	52.2754	23.4554	0.0380	18.0663	2.8786	20.9448	9.9307	2.6483	12.5790		3,894.950 0	3,894.950 0	1.1934		3,924.785 2

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1682	0.1105	1.4224	2.6700e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		265.0728	265.0728	0.0109		265.3464
Total	0.1682	0.1105	1.4224	2.6700e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		265.0728	265.0728	0.0109		265.3464

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	8.1298	2.8786	11.0084	4.4688	2.6483	7.1171	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.2 Site Preparation - 2017**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1682	0.1105	1.4224	2.6700e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		265.0728	265.0728	0.0109		265.3464
Total	0.1682	0.1105	1.4224	2.6700e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		265.0728	265.0728	0.0109		265.3464

3.3 Grading - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.7483	67.9396	38.7826	0.0620		3.0727	3.0727		2.8269	2.8269		6,344.8863	6,344.8863	1.9441		6,393.4879
Total	5.7483	67.9396	38.7826	0.0620	8.6733	3.0727	11.7460	3.5965	2.8269	6.4234		6,344.8863	6,344.8863	1.9441		6,393.4879

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1868	0.1228	1.5804	2.9700e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		294.5253	294.5253	0.0122		294.8293
Total	0.1868	0.1228	1.5804	2.9700e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		294.5253	294.5253	0.0122		294.8293

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	5.7483	67.9396	38.7826	0.0620		3.0727	3.0727		2.8269	2.8269	0.0000	6,344.8863	6,344.8863	1.9441		6,393.4878
Total	5.7483	67.9396	38.7826	0.0620	3.9030	3.0727	6.9757	1.6184	2.8269	4.4453	0.0000	6,344.8863	6,344.8863	1.9441		6,393.4878

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1868	0.1228	1.5804	2.9700e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		294.5253	294.5253	0.0122		294.8293
Total	0.1868	0.1228	1.5804	2.9700e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		294.5253	294.5253	0.0122		294.8293

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.4 Building Construction - 2017**Unmitigated Construction Off-Site**

	ROG	NCx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8062	19.8392	3.9951	0.0377	0.8573	0.1877	1.0450	0.2468	0.1796	0.4264		3,953.6710	3,953.6710	0.3966		3,963.5868
Worker	3.3536	2.2036	28.3682	0.0532	4.5855	0.0361	4.6217	1.2160	0.0334	1.2494		5,286.7298	5,286.7298	0.2182		5,292.1857
Total	4.1598	22.0428	32.3633	0.0910	5.4428	0.2238	5.6667	1.4629	0.2129	1.6758		9,240.4009	9,240.4009	0.6149		9,255.7725

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8062	19.8392	3.9951	0.0377	0.8573	0.1877	1.0450	0.2468	0.1796	0.4264		3,953.6710	3,953.6710	0.3966		3,963.5868
Worker	3.3536	2.2036	28.3682	0.0532	4.5855	0.0361	4.6217	1.2160	0.0334	1.2494		5,286.7298	5,286.7298	0.2182		5,292.1857
Total	4.1598	22.0428	32.3633	0.0910	5.4428	0.2238	5.6667	1.4629	0.2129	1.6758		9,240.4009	9,240.4009	0.6149		9,255.7725

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.4 Building Construction - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6936	18.7123	3.4475	0.0376	0.8572	0.1517	1.0089	0.2468	0.1451	0.3919		3,939.868 9	3,939.868 9	0.3674		3,949.054 2
Worker	2.9834	1.9203	24.8883	0.0525	4.5855	0.0352	4.6207	1.2160	0.0325	1.2485		5,214.175 8	5,214.175 8	0.1964		5,219.086 3
Total	3.6770	20.6326	28.3359	0.0901	5.4428	0.1869	5.6296	1.4628	0.1776	1.6404		9,154.044 8	9,154.044 8	0.5638		9,168.140 6

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.935 1	2,620.935 1	0.6421		2,636.988 3
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.935 1	2,620.935 1	0.6421		2,636.988 3

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6936	18.7123	3.4475	0.0376	0.8572	0.1517	1.0089	0.2468	0.1451	0.3919		3,939.868 9	3,939.868 9	0.3674		3,949.054 2
Worker	2.9834	1.9203	24.8883	0.0525	4.5855	0.0352	4.6207	1.2160	0.0325	1.2485		5,214.175 8	5,214.175 8	0.1964		5,219.086 3
Total	3.6770	20.6326	28.3359	0.0901	5.4428	0.1869	5.6296	1.4628	0.1776	1.6404		9,154.044 8	9,154.044 8	0.5638		9,168.140 6

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.088 7	2,294.088 7	0.7142		2,311.9432
Paving	0.3603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0040	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.088 7	2,294.088 7	0.7142		2,311.943 2

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1247	0.0802	1.0399	2.1900e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		217.8625	217.8625	8.2100e-003		218.0677
Total	0.1247	0.0802	1.0399	2.1900e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		217.8625	217.8625	8.2100e-003		218.0677

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.3603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0040	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1247	0.0802	1.0399	2.1900e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		217.8625	217.8625	8.2100e-003		218.0677
Total	0.1247	0.0802	1.0399	2.1900e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		217.8625	217.8625	8.2100e-003		218.0677

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.4621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	51.7607	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.6 Architectural Coating - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5983	0.3851	4.9915	0.0105	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		1,045.7400	1,045.7400	0.0394		1,046.7248
Total	0.5983	0.3851	4.9915	0.0105	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		1,045.7400	1,045.7400	0.0394		1,046.7248

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.4621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	51.7607	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

3.6 Architectural Coating - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5983	0.3851	4.9915	0.0105	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		1,045.7400	1,045.7400	0.0394		1,046.7248
Total	0.5983	0.3851	4.9915	0.0105	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		1,045.7400	1,045.7400	0.0394		1,046.7248

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247
Parking Lot	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247
Unrefrigerated Warehouse-No Rail	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Natural Gas Unmitigated	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	5944.11	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Total		0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	5.94411	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Total		0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Unmitigated	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.8280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3500e-003	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Total	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.8280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3500e-003	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Total	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320

7.0 Water Detail

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Phase 1 Construction and Operation no HDT (Winter Daily)

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

Bronco Winery Phase 1 Construction and Area

Stanislaus County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	120.00	1000sqft	2.75	120,000.00	0
Other Non-Asphalt Surfaces	3.80	Acre	3.80	165,528.00	0
Other Non-Asphalt Surfaces	10.30	Acre	10.30	448,668.00	0
Parking Lot	2.75	Acre	2.75	119,790.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

Project Characteristics -

Land Use -

Construction Phase -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Construction, area source, and energy only

Construction Off-road Equipment Mitigation -

Area Coating - Rule 4601 Architectural Coatings compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.3170	68.0864	46.7844	0.1105	18.2962	3.0747	21.1766	9.9917	2.8288	12.6416	0.0000	11,145.7447	11,145.7447	1.9548	0.0000	11,177.9891
2018	52.3571	44.6597	42.4367	0.1096	5.4428	1.6896	7.1324	1.4628	1.5902	3.0531	0.0000	11,033.8667	11,033.8667	1.2270	0.0000	11,064.5422
Maximum	52.3571	68.0864	46.7844	0.1105	18.2962	3.0747	21.1766	9.9917	2.8288	12.6416	0.0000	11,145.7447	11,145.7447	1.9548	0.0000	11,177.9891

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	7.3170	68.0864	46.7844	0.1105	8.3597	3.0747	11.2401	4.5298	2.8288	7.1797	0.0000	11,145.7447	11,145.7447	1.9548	0.0000	11,177.9891
2018	52.3571	44.6597	42.4367	0.1096	5.4428	1.6896	7.1324	1.4628	1.5902	3.0531	0.0000	11,033.8667	11,033.8667	1.2270	0.0000	11,064.5422
Maximum	52.3571	68.0864	46.7844	0.1105	8.3597	3.0747	11.2401	4.5298	2.8288	7.1797	0.0000	11,145.7447	11,145.7447	1.9548	0.0000	11,177.9891

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	41.86	0.00	35.10	47.68	0.00	34.80	0.00	0.00	0.00	0.00	0.00	0.00

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Energy	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.1754	0.5829	0.5037	3.5000e-003	0.0000	0.0443	0.0443	0.0000	0.0443	0.0443		699.3370	699.3370	0.0135	0.0128	703.4946

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Energy	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.1754	0.5829	0.5037	3.5000e-003	0.0000	0.0443	0.0443	0.0000	0.0443	0.0443		699.3370	699.3370	0.0135	0.0128	703.4946

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2017	4/14/2017	5	10	
2	Grading	Grading	4/15/2017	5/26/2017	5	30	
3	Building Construction	Building Construction	5/27/2017	7/20/2018	5	300	
4	Paving	Paving	7/21/2018	8/17/2018	5	20	
5	Architectural Coating	Architectural Coating	8/18/2018	9/14/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 16.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 180,000; Non-Residential Outdoor: 60,000; Striped Parking Area: 44,039 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	359.00	140.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	72.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2017**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.950 0	3,894.950 0	1.1934		3,924.785 2
Total	4.9608	52.2754	23.4554	0.0380	18.0663	2.8786	20.9448	9.9307	2.6483	12.5790		3,894.950 0	3,894.950 0	1.1934		3,924.785 2

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1685	0.1321	1.2013	2.3500e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		233.9208	233.9208	9.6400e-003		234.1617
Total	0.1685	0.1321	1.2013	2.3500e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		233.9208	233.9208	9.6400e-003		234.1617

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852
Total	4.9608	52.2754	23.4554	0.0380	8.1298	2.8786	11.0084	4.4688	2.6483	7.1171	0.0000	3,894.9500	3,894.9500	1.1934		3,924.7852

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1685	0.1321	1.2013	2.3500e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		233.9208	233.9208	9.6400e-003		234.1617
Total	0.1685	0.1321	1.2013	2.3500e-003	0.2299	1.8100e-003	0.2317	0.0610	1.6700e-003	0.0626		233.9208	233.9208	9.6400e-003		234.1617

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.7483	67.9396	38.7826	0.0620		3.0727	3.0727		2.8269	2.8269		6,344.8863	6,344.8863	1.9441		6,393.4879
Total	5.7483	67.9396	38.7826	0.0620	8.6733	3.0727	11.7460	3.5965	2.8269	6.4234		6,344.8863	6,344.8863	1.9441		6,393.4879

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1873	0.1468	1.3348	2.6200e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		259.9119	259.9119	0.0107		260.1797
Total	0.1873	0.1468	1.3348	2.6200e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		259.9119	259.9119	0.0107		260.1797

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	5.7483	67.9396	38.7826	0.0620		3.0727	3.0727		2.8269	2.8269	0.0000	6,344.8863	6,344.8863	1.9441		6,393.4878
Total	5.7483	67.9396	38.7826	0.0620	3.9030	3.0727	6.9757	1.6184	2.8269	4.4453	0.0000	6,344.8863	6,344.8863	1.9441		6,393.4878

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1873	0.1468	1.3348	2.6200e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		259.9119	259.9119	0.0107		260.1797
Total	0.1873	0.1468	1.3348	2.6200e-003	0.2555	2.0100e-003	0.2575	0.0678	1.8600e-003	0.0696		259.9119	259.9119	0.0107		260.1797

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.4 Building Construction - 2017**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8406	20.1561	4.6427	0.0366	0.8573	0.1910	1.0483	0.2468	0.1823	0.4296		3,829.3456	3,829.3456	0.4444		3,840.4556
Worker	3.3615	2.6353	23.9593	0.0470	4.5855	0.0361	4.6217	1.2160	0.0334	1.2494		4,665.4194	4,665.4194	0.1923		4,670.2256
Total	4.2021	22.7915	28.6019	0.0835	5.4428	0.2272	5.6700	1.4629	0.2161	1.6790		8,494.7649	8,494.7649	0.6367		8,510.6813

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8406	20.1561	4.6427	0.0366	0.8573	0.1910	1.0483	0.2468	0.1828	0.4296		3,829.3456	3,829.3456	0.4444		3,840.4556
Worker	3.3615	2.6353	23.9593	0.0470	4.5855	0.0361	4.6217	1.2160	0.0334	1.2494		4,665.4194	4,665.4194	0.1923		4,670.2256
Total	4.2021	22.7915	28.6019	0.0835	5.4428	0.2272	5.6700	1.4629	0.2161	1.6790		8,494.7649	8,494.7649	0.6367		8,510.6813

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.4 Building Construction - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7235	18.9753	4.0445	0.0364	0.8572	0.1545	1.0118	0.2468	0.1478	0.3946		3,813.181 2	3,813.181 2	0.4134		3,823.516 5
Worker	2.9739	2.2944	20.8118	0.0463	4.5855	0.0352	4.6207	1.2160	0.0325	1.2485		4,599.750 4	4,599.750 4	0.1715		4,604.037 4
Total	3.6975	21.2696	24.8563	0.0827	5.4428	0.1897	5.6325	1.4628	0.1803	1.6431		8,412.931 6	8,412.931 6	0.5849		8,427.554 0

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.935 1	2,620.935 1	0.6421		2,636.988 3
Total	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.935 1	2,620.935 1	0.6421		2,636.988 3

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7235	18.9753	4.0445	0.0364	0.8572	0.1545	1.0118	0.2468	0.1478	0.3946		3,813.181 2	3,813.181 2	0.4134		3,823.516 5
Worker	2.9739	2.2944	20.8118	0.0463	4.5855	0.0352	4.6207	1.2160	0.0325	1.2485		4,599.750 4	4,599.750 4	0.1715		4,604.037 4
Total	3.6975	21.2696	24.8563	0.0827	5.4428	0.1897	5.6325	1.4628	0.1803	1.6431		8,412.931 6	8,412.931 6	0.5849		8,427.554 0

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.088 7	2,294.088 7	0.7142		2,311.9432
Paving	0.3603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0040	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.088 7	2,294.088 7	0.7142		2,311.943 2

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1243	0.0959	0.8696	1.9300e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		192.1901	192.1901	7.1700e-003		192.3693
Total	0.1243	0.0959	0.8696	1.9300e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		192.1901	192.1901	7.1700e-003		192.3693

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.3603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0040	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797	0.0000	2,294.0887	2,294.0887	0.7142		2,311.9432

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1243	0.0959	0.8696	1.9300e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		192.1901	192.1901	7.1700e-003		192.3693
Total	0.1243	0.0959	0.8696	1.9300e-003	0.1916	1.4700e-003	0.1931	0.0508	1.3600e-003	0.0522		192.1901	192.1901	7.1700e-003		192.3693

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.4621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	51.7607	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.6 Architectural Coating - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5964	0.4602	4.1740	9.2800e-003	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		922.5126	922.5126	0.0344		923.3724
Total	0.5964	0.4602	4.1740	9.2800e-003	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		922.5126	922.5126	0.0344		923.3724

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	51.4621					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171
Total	51.7607	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506	0.0000	281.4485	281.4485	0.0267		282.1171

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

3.6 Architectural Coating - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5964	0.4602	4.1740	9.2800e-003	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		922.5126	922.5126	0.0344		923.3724
Total	0.5964	0.4602	4.1740	9.2800e-003	0.9197	7.0600e-003	0.9267	0.2439	6.5100e-003	0.2504		922.5126	922.5126	0.0344		923.3724

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247
Parking Lot	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247
Unrefrigerated Warehouse-No Rail	0.483771	0.038135	0.171001	0.151080	0.031874	0.006863	0.026572	0.080370	0.001802	0.001269	0.005122	0.000896	0.001247

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
NaturalGas Unmitigated	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	5944.11	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Total		0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	5.94411	0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626
Total		0.0641	0.5828	0.4895	3.5000e-003		0.0443	0.0443		0.0443	0.0443		699.3070	699.3070	0.0134	0.0128	703.4626

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Unmitigated	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.8280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3500e-003	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Total	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.8280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3500e-003	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320
Total	3.1113	1.3000e-004	0.0142	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0300	0.0300	8.0000e-005		0.0320

7.0 Water Detail

Bronco Winery Phase 1 Construction and Area - Stanislaus County, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Phase 2 Construction and Operation no HDT (Summer Daily)

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

Bronco Winery Later Phases Construction Area and Employee Stanislaus County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.30	1000sqft	2.56	111,300.00	0
Unrefrigerated Warehouse-No Rail	510.53	1000sqft	11.72	510,529.00	0
Parking Lot	6.22	Acre	6.22	270,943.20	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

Project Characteristics -

Land Use - Parking lot based on area of site minus the area of the buildings.

Construction Phase -

Trips and VMT - Demolition is for one house.

Demolition - Remove 2727 sf house with 1,790 sf patio cover

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Operational run for employees only based on increase of 30 employees for 60 trips/day.

Area Coating - Rule 4601 Architectural Coatings - use compliant coatings

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix - Employee vehicles only LDA, LDT1 and 2, MCY, and MH. Adjusted fleet mix.

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblFleetMix	HHD	0.08	0.00
tblFleetMix	LDA	0.50	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.17	0.20
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	UBUS	1.1830e-003	0.00
tblLandUse	LandUseSquareFeet	510,530.00	510,529.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	21.00	4.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.68	0.12
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	0.12

2.0 Emissions Summary

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.7304	54.6140	42.7219	0.1174	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935
2020	5.1173	37.5891	39.5591	0.1155	5.5432	1.2357	6.7790	1.4903	1.1627	2.6530	0.0000	11,572.0965	11,572.0965	1.1196	0.0000	11,600.0866
2021	193.6730	34.2177	37.1910	0.1135	5.5432	1.0304	6.5735	1.4903	0.9687	2.4590	0.0000	11,376.5466	11,376.5466	1.0858	0.0000	11,403.6920
Maximum	193.6730	54.6140	42.7219	0.1174	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.7304	54.6140	42.7219	0.1174	8.3597	2.3921	10.7518	4.5298	2.2007	6.7305	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935
2020	5.1173	37.5891	39.5591	0.1155	5.5432	1.2357	6.7790	1.4903	1.1627	2.6530	0.0000	11,572.0965	11,572.0965	1.1196	0.0000	11,600.0866
2021	193.6730	34.2177	37.1910	0.1135	5.5432	1.0304	6.5735	1.4903	0.9687	2.4590	0.0000	11,376.5466	11,376.5466	1.0858	0.0000	11,403.6920
Maximum	193.6730	54.6140	42.7219	0.1174	8.3597	2.3921	10.7518	4.5298	2.2007	6.7305	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	33.82	0.00	29.19	42.10	0.00	31.56	0.00	0.00	0.00	0.00	0.00	0.00

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Energy	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Mobile	0.1643	0.1758	2.2193	5.7000e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		567.3854	567.3854	0.0188		567.8543
Total	14.9466	3.0458	4.6941	0.0229	0.4940	0.2216	0.7155	0.1309	0.2213	0.3523		4,010.8200	4,010.8200	0.0851	0.0631	4,031.7599

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Energy	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Mobile	0.1643	0.1758	2.2193	5.7000e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		567.3854	567.3854	0.0188		567.8543
Total	14.9466	3.0458	4.6941	0.0229	0.4940	0.2216	0.7155	0.1309	0.2213	0.3523		4,010.8200	4,010.8200	0.0851	0.0631	4,031.7599

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	9/27/2019	5	20	
2	Site Preparation	Site Preparation	10/1/2019	10/14/2019	5	10	
3	Grading	Grading	10/15/2019	12/2/2019	5	35	
4	Building Construction	Building Construction	12/3/2019	5/3/2021	5	370	
5	Paving	Paving	5/4/2021	5/31/2021	5	20	
6	Architectural Coating	Architectural Coating	6/1/2021	6/28/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 932,744; Non-Residential Outdoor: 310,915; Striped Parking Area: 16,257 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	364.00	146.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2223	0.0000	0.2223	0.0337	0.0000	0.0337			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	3.5134	35.7830	22.0600	0.0388	0.2223	1.7949	2.0172	0.0337	1.6697	1.7033		3,816.899 4	3,816.899 4	1.0618		3,843.445 1

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6900e-003	0.0580	7.8900e-003	1.6000e-004	3.4900e-003	2.3000e-004	3.7300e-003	9.6000e-004	2.2000e-004	1.1800e-003		17.0542	17.0542	1.0300e-003		17.0799
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1126	0.0704	0.9227	2.1300e-003	0.1916	1.4200e-003	0.1930	0.0508	1.3100e-003	0.0521		211.6170	211.6170	7.2600e-003		211.7986
Total	0.1143	0.1283	0.9306	2.2900e-003	0.1951	1.6500e-003	0.1968	0.0518	1.5300e-003	0.0533		228.6712	228.6712	8.2900e-003		228.8785

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1000	0.0000	0.1000	0.0152	0.0000	0.0152			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.1000	1.7949	1.8949	0.0152	1.6697	1.6848	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6900e-003	0.0580	7.8900e-003	1.6000e-004	3.4900e-003	2.3000e-004	3.7300e-003	9.6000e-004	2.2000e-004	1.1800e-003		17.0542	17.0542	1.0300e-003		17.0799
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1126	0.0704	0.9227	2.1300e-003	0.1916	1.4200e-003	0.1930	0.0508	1.3100e-003	0.0521		211.6170	211.6170	7.2600e-003		211.7986
Total	0.1143	0.1283	0.9306	2.2900e-003	0.1951	1.6500e-003	0.1968	0.0518	1.5300e-003	0.0533		228.6712	228.6712	8.2900e-003		228.8785

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298		3,766.4529	3,766.4529	1.1917		3,796.2445

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583
Total	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	8.1298	2.3904	10.5202	4.4688	2.1991	6.6679	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583
Total	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583

3.4 Grading - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	4.7389	54.5202	33.3768	0.0620	8.6733	2.3827	11.0560	3.5965	2.1920	5.7885		6,140.0195	6,140.0195	1.9426		6,188.5854

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981
Total	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	4.7389	54.5202	33.3768	0.0620	3.9030	2.3827	6.2857	1.6184	2.1920	3.8105	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981
Total	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6376	18.4783	3.1672	0.0389	0.8939	0.1331	1.0270	0.2574	0.1273	0.3847		4,074.091 1	4,074.091 1	0.3718		4,083.385 1
Worker	2.7317	1.7073	22.3910	0.0516	4.6494	0.0345	4.6839	1.2330	0.0318	1.2648		5,135.240 2	5,135.240 2	0.1762		5,139.644 9
Total	3.3692	20.1856	25.5581	0.0905	5.5433	0.1676	5.7109	1.4903	0.1591	1.6494		9,209.331 3	9,209.331 3	0.5480		9,223.030 0

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.580 2	2,591.580 2	0.6313		2,607.363 5
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.580 2	2,591.580 2	0.6313		2,607.363 5

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6376	18.4783	3.1672	0.0389	0.8939	0.1331	1.0270	0.2574	0.1273	0.3847		4,074.0911	4,074.0911	0.3718		4,083.3851
Worker	2.7317	1.7073	22.3910	0.0516	4.6494	0.0345	4.6839	1.2330	0.0318	1.2648		5,135.2402	5,135.2402	0.1762		5,139.6449
Total	3.3692	20.1856	25.5581	0.0905	5.5433	0.1676	5.7109	1.4903	0.1591	1.6494		9,209.3313	9,209.3313	0.5480		9,223.0300

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5083	16.8971	2.7054	0.0386	0.8939	0.0854	0.9792	0.2573	0.0817	0.3390		4,040.592 0	4,040.592 0	0.3429		4,049.165 0
Worker	2.4892	1.5059	20.0052	0.0500	4.6494	0.0333	4.6827	1.2330	0.0307	1.2637		4,978.441 4	4,978.441 4	0.1538		4,982.287 1
Total	2.9975	18.4030	22.7106	0.0886	5.5432	0.1187	5.6619	1.4903	0.1124	1.6027		9,019.033 5	9,019.033 5	0.4968		9,031.452 1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5083	16.8971	2.7054	0.0386	0.8939	0.0854	0.9792	0.2573	0.0817	0.3390		4,040.5920	4,040.5920	0.3429		4,049.1650
Worker	2.4892	1.5059	20.0052	0.0500	4.6494	0.0333	4.6827	1.2330	0.0307	1.2637		4,978.4414	4,978.4414	0.1538		4,982.2871
Total	2.9975	18.4030	22.7106	0.0886	5.5432	0.1187	5.6619	1.4903	0.1124	1.6027		9,019.0335	9,019.0335	0.4968		9,031.4521

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4126	15.4422	2.3401	0.0382	0.8938	0.0393	0.9331	0.2573	0.0375	0.2949		4,002.357 7	4,002.357 7	0.3316		4,010.646 7
Worker	2.2990	1.3434	18.2757	0.0484	4.6494	0.0324	4.6818	1.2330	0.0295	1.2628		4,820.825 1	4,820.825 1	0.1382		4,824.281 1
Total	2.7116	16.7856	20.6158	0.0866	5.5432	0.0717	5.6149	1.4903	0.0675	1.5577		8,823.182 7	8,823.182 7	0.4698		8,834.927 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4126	15.4422	2.3401	0.0382	0.8938	0.0393	0.9331	0.2573	0.0376	0.2949		4,002.3577	4,002.3577	0.3316		4,010.6467
Worker	2.2990	1.3434	18.2757	0.0484	4.6494	0.0324	4.6818	1.2330	0.0298	1.2628		4,820.8251	4,820.8251	0.1382		4,824.2811
Total	2.7116	16.7856	20.6158	0.0866	5.5432	0.0717	5.6149	1.4903	0.0675	1.5577		8,823.1827	8,823.1827	0.4698		8,834.9278

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.8148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0704	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028
Total	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.8148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0704	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028
Total	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	192.9930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	193.2119	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.7 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069
Total	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	192.9930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	193.2119	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069
Total	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1643	0.1758	2.2193	5.7000e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		567.3854	567.3854	0.0188		567.8543
Unmitigated	0.1643	0.1758	2.2193	5.7000e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		567.3854	567.3854	0.0188		567.8543

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	61.26	61.26	61.26	236,690	236,690
Total	61.26	61.26	61.26	236,690	236,690

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Parking Lot	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Unrefrigerated Warehouse-No Rail	0.589760	0.041511	0.202690	0.160108	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.004865	0.000000	0.001067

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Natural Gas Unmitigated	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3979.36	0.0429	0.3901	0.3277	2.3400e-003		0.0297	0.0297		0.0297	0.0297		468.1596	468.1596	8.9700e-003	8.5800e-003	470.9416
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	25288.7	0.2727	2.4793	2.0826	0.0149		0.1884	0.1884		0.1884	0.1884		2,975.1376	2,975.1376	0.0570	0.0545	2,992.8173
Total		0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3.97936	0.0429	0.3901	0.3277	2.3400e-003		0.0297	0.0297		0.0297	0.0297		468.1596	468.1596	8.9700e-003	8.5800e-003	470.9416
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	25.2887	0.2727	2.4793	2.0826	0.0149		0.1884	0.1884		0.1884	0.1884		2,975.1376	2,975.1376	0.0570	0.0545	2,992.8173
Total		0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Unmitigated	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.4031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Total	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.4031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Total	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

7.0 Water Detail

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Summer

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

Phase 2 Construction and Operation no HDT (Winter Daily)

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

Bronco Winery Later Phases Construction Area and Employee

Stanislaus County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.30	1000sqft	2.56	111,300.00	0
Unrefrigerated Warehouse-No Rail	510.53	1000sqft	11.72	510,529.00	0
Parking Lot	6.22	Acre	6.22	270,943.20	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

Project Characteristics -

Land Use - Parking lot based on area of site minus the area of the buildings.

Construction Phase -

Trips and VMT - Demolition is for one house.

Demolition - Remove 2727 sf house with 1,790 sf patio cover

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Operational run for employees only based on increase of 30 employees for 60 trips/day.

Area Coating - Rule 4601 Architectural Coatings - use compliant coatings

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix - Employee vehicles only LDA, LDT1 and 2, MCY, and MH. Adjusted fleet mix.

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	65
tblAreaCoating	Area_EF_Nonresidential_Interior	150	65
tblFleetMix	HHD	0.08	0.00
tblFleetMix	LDA	0.50	0.59
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.17	0.20
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	MDV	0.14	0.16
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	UBUS	1.1830e-003	0.00
tblLandUse	LandUseSquareFeet	510,530.00	510,529.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	21.00	4.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	0.12
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.68	0.12
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	0.12

2.0 Emissions Summary

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.7436	54.6322	39.5127	0.1100	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,063.422 2	11,063.422 2	1.9511	0.0000	11,093.505 2
2020	5.1281	38.0452	36.6145	0.1083	5.5432	1.2377	6.7810	1.4903	1.1646	2.6549	0.0000	10,853.05 17	10,853.05 17	1.1431	0.0000	10,881.62 87
2021	193.6705	34.5815	34.4545	0.1066	5.5432	1.0321	6.5752	1.4903	0.9704	2.4607	0.0000	10,677.46 72	10,677.46 72	1.1106	0.0000	10,705.23 31
Maximum	193.6705	54.6322	39.5127	0.1100	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,063.42 22	11,063.42 22	1.9511	0.0000	11,093.50 52

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.7436	54.6322	39.5127	0.1100	8.3597	2.3921	10.7518	4.5298	2.2007	6.7305	0.0000	11,063.422 2	11,063.422 2	1.9511	0.0000	11,093.505 2
2020	5.1281	38.0452	36.6145	0.1083	5.5432	1.2377	6.7810	1.4903	1.1646	2.6549	0.0000	10,853.05 17	10,853.05 17	1.1431	0.0000	10,881.62 87
2021	193.6705	34.5815	34.4545	0.1066	5.5432	1.0321	6.5752	1.4903	0.9704	2.4607	0.0000	10,677.46 72	10,677.46 72	1.1106	0.0000	10,705.23 31
Maximum	193.6705	54.6322	39.5127	0.1100	8.3597	2.3921	10.7518	4.5298	2.2007	6.7305	0.0000	11,063.42 22	11,063.42 22	1.9511	0.0000	11,093.50 52

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	33.82	0.00	29.19	42.10	0.00	31.56	0.00	0.00	0.00	0.00	0.00	0.00

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Energy	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Mobile	0.1243	0.2092	1.9369	5.0300e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		501.1265	501.1265	0.0172		501.5557
Total	14.9066	3.0792	4.4118	0.0223	0.4940	0.2216	0.7155	0.1309	0.2213	0.3523		3,944.5611	3,944.5611	0.0835	0.0631	3,965.4613

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Energy	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Mobile	0.1243	0.2092	1.9369	5.0300e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		501.1265	501.1265	0.0172		501.5557
Total	14.9066	3.0792	4.4118	0.0223	0.4940	0.2216	0.7155	0.1309	0.2213	0.3523		3,944.5611	3,944.5611	0.0835	0.0631	3,965.4613

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	9/27/2019	5	20	
2	Site Preparation	Site Preparation	10/1/2019	10/14/2019	5	10	
3	Grading	Grading	10/15/2019	12/2/2019	5	35	
4	Building Construction	Building Construction	12/3/2019	5/3/2021	5	370	
5	Paving	Paving	5/4/2021	5/31/2021	5	20	
6	Architectural Coating	Architectural Coating	6/1/2021	6/28/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 932,744; Non-Residential Outdoor: 310,915; Striped Parking Area: 16,257 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	364.00	146.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2223	0.0000	0.2223	0.0337	0.0000	0.0337			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.2223	1.7949	2.0172	0.0337	1.6697	1.7033		3,816.8994	3,816.8994	1.0618		3,843.4451

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7500e-003	0.0596	8.9200e-003	1.6000e-004	3.4900e-003	2.4000e-004	3.7300e-003	9.6000e-004	2.3000e-004	1.1800e-003		16.7070	16.7070	1.1500e-003		16.7358
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1120	0.0840	0.7668	1.8800e-003	0.1916	1.4200e-003	0.1930	0.0508	1.3100e-003	0.0521		186.6418	186.6418	6.3100e-003		186.7995
Total	0.1137	0.1436	0.7757	2.0400e-003	0.1951	1.6600e-003	0.1968	0.0518	1.5400e-003	0.0533		203.3488	203.3488	7.4600e-003		203.5353

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1000	0.0000	0.1000	0.0152	0.0003	0.0152			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.1000	1.7949	1.8949	0.0152	1.6697	1.6848	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7500e-003	0.0596	8.9200e-003	1.6000e-004	3.4900e-003	2.4000e-004	3.7300e-003	9.6000e-004	2.3000e-004	1.1800e-003		16.7070	16.7070	1.1500e-003		16.7358
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1120	0.0840	0.7668	1.8800e-003	0.1916	1.4200e-003	0.1930	0.0508	1.3100e-003	0.0521		186.6418	186.6418	6.3100e-003		186.7995
Total	0.1137	0.1436	0.7757	2.0400e-003	0.1951	1.6600e-003	0.1968	0.0518	1.5400e-003	0.0533		203.3488	203.3488	7.4600e-003		203.5353

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298		3,766.4529	3,766.4529	1.1917		3,796.2445

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1344	0.1008	0.9201	2.2500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		223.9702	223.9702	7.5700e-003		224.1594
Total	0.1344	0.1008	0.9201	2.2500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		223.9702	223.9702	7.5700e-003		224.1594

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	8.1298	2.3904	10.5202	4.4688	2.1991	6.6679	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1344	0.1008	0.9201	2.2500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		223.9702	223.9702	7.5700e-003		224.1594
Total	0.1344	0.1008	0.9201	2.2500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		223.9702	223.9702	7.5700e-003		224.1594

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	4.7389	54.5202	33.3768	0.0620	8.6733	2.3827	11.0560	3.5965	2.1920	5.7885		6,140.0195	6,140.0195	1.9426		6,188.5854

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1493	0.1120	1.0224	2.5000e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		248.8558	248.8558	8.4100e-003		249.0560
Total	0.1493	0.1120	1.0224	2.5000e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		248.8558	248.8558	8.4100e-003		249.0560

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	4.7389	54.5202	33.3768	0.0620	3.9030	2.3827	6.2857	1.6184	2.1920	3.8105	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1493	0.1120	1.0224	2.5000e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		248.8558	248.8558	8.4100e-003		249.0660
Total	0.1493	0.1120	1.0224	2.5000e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		248.8558	248.8558	8.4100e-003		249.0660

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6652	18.7115	3.7417	0.0376	0.8939	0.1358	1.0297	0.2574	0.1299	0.3873		3,942.667 3	3,942.667 3	0.4189		3,953.139 9
Worker	2.7172	2.0388	18.6072	0.0455	4.6494	0.0345	4.6839	1.2330	0.0318	1.2648		4,529.174 8	4,529.174 8	0.1531		4,533.001 9
Total	3.3825	20.7503	22.3489	0.0831	5.5433	0.1703	5.7136	1.4903	0.1617	1.6520		8,471.842 1	8,471.842 1	0.5720		8,486.141 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.580 2	2,591.580 2	0.6313		2,607.363 5
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.580 2	2,591.580 2	0.6313		2,607.363 5

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6652	18.7115	3.7417	0.0376	0.8939	0.1358	1.0297	0.2574	0.1299	0.3873		3,942.667 3	3,942.667 3	0.4189		3,953.139 9
Worker	2.7172	2.0388	18.6072	0.0455	4.6494	0.0345	4.6839	1.2330	0.0318	1.2648		4,529.174 8	4,529.174 8	0.1531		4,533.001 9
Total	3.3825	20.7503	22.3489	0.0831	5.5433	0.1703	5.7136	1.4903	0.1617	1.6520		8,471.842 1	8,471.842 1	0.5720		8,486.141 8

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5328	17.0626	3.2216	0.0373	0.8939	0.0874	0.9812	0.2573	0.0836	0.3409		3,909.5908	3,909.5908	0.3873		3,919.2728
Worker	2.4754	1.7966	16.5444	0.0441	4.6494	0.0333	4.6827	1.2330	0.0307	1.2637		4,390.3978	4,390.3978	0.1329		4,393.7214
Total	3.0082	18.8591	19.7660	0.0814	5.5432	0.1207	5.6639	1.4903	0.1143	1.6046		8,299.9886	8,299.9886	0.5202		8,312.9942

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5328	17.0626	3.2216	0.0373	0.8939	0.0874	0.9812	0.2573	0.0836	0.3409		3,909.5908	3,909.5908	0.3873		3,919.2728
Worker	2.4754	1.7966	16.5444	0.0441	4.6494	0.0333	4.6827	1.2330	0.0307	1.2637		4,390.3978	4,390.3978	0.1329		4,393.7214
Total	3.0082	18.8591	19.7660	0.0814	5.5432	0.1207	5.6639	1.4903	0.1143	1.6046		8,299.9886	8,299.9886	0.5202		8,312.9942

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4355	15.5475	2.8137	0.0370	0.8938	0.0411	0.9348	0.2573	0.0393	0.2966		3,872.488 4	3,872.488 4	0.3753		3,881.871 6
Worker	2.2865	1.6020	15.0656	0.0427	4.6494	0.0324	4.6818	1.2330	0.0298	1.2628		4,251.614 9	4,251.614 9	0.1193		4,254.597 2
Total	2.7220	17.1494	17.8793	0.0796	5.5432	0.0735	5.6166	1.4903	0.0691	1.5594		8,124.103 3	8,124.103 3	0.4946		8,136.468 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4355	15.5475	2.8137	0.0370	0.8938	0.0411	0.9348	0.2573	0.0393	0.2966		3,872.4884	3,872.4884	0.3753		3,881.8716
Worker	2.2865	1.6020	15.0656	0.0427	4.6494	0.0324	4.6818	1.2330	0.0298	1.2628		4,251.6149	4,251.6149	0.1193		4,254.5972
Total	2.7220	17.1494	17.8793	0.0796	5.5432	0.0735	5.6166	1.4903	0.0691	1.5594		8,124.1033	8,124.1033	0.4946		8,136.4688

3.6 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.8148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0704	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0942	0.0660	0.6208	1.7600e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		175.2039	175.2039	4.9200e-003		175.3268
Total	0.0942	0.0660	0.6208	1.7600e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		175.2039	175.2039	4.9200e-003		175.3268

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.8148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0704	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0942	0.0660	0.6208	1.7600e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		175.2039	175.2039	4.9200e-003		175.3268
Total	0.0942	0.0660	0.6208	1.7600e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		175.2039	175.2039	4.9200e-003		175.3268

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	192.9930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	193.2119	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.7 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4586	0.3213	3.0214	8.5600e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		852.6590	852.6590	0.0239		853.2571
Total	0.4586	0.3213	3.0214	8.5600e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		852.6590	852.6590	0.0239		853.2571

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	192.9930					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	193.2119	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

3.7 Architectural Coating - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4586	0.3213	3.0214	8.5600e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		852.6590	852.6590	0.0239		853.2571
Total	0.4586	0.3213	3.0214	8.5600e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		852.6590	852.6590	0.0239		853.2571

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1243	0.2092	1.9369	5.0300e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		501.1265	501.1265	0.0172		501.5557
Unmitigated	0.1243	0.2092	1.9369	5.0300e-003	0.4940	3.2600e-003	0.4972	0.1309	3.0000e-003	0.1339		501.1265	501.1265	0.0172		501.5557

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	61.26	61.26	61.26	236,690	236,690
Total	61.26	61.26	61.26	236,690	236,690

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Parking Lot	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Unrefrigerated Warehouse-No Rail	0.589760	0.041511	0.202690	0.160108	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.004865	0.000000	0.001067

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Natural Gas Unmitigated	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3979.36	0.0429	0.3901	0.3277	2.3400e-003		0.0297	0.0297		0.0297	0.0297		468.1596	468.1596	8.9700e-003	8.5800e-003	470.9416
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	25288.7	0.2727	2.4793	2.0826	0.0149		0.1884	0.1884		0.1884	0.1884		2,975.1376	2,975.1376	0.0570	0.0545	2,992.8173
Total		0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3,979.36	0.0429	0.3901	0.3277	2.3400e-003		0.0297	0.0297		0.0297	0.0297		468.1596	468.1596	8.9700e-003	8.5800e-003	470.9416
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	25,288.7	0.2727	2.4793	2.0826	0.0149		0.1884	0.1884		0.1884	0.1884		2,975.1376	2,975.1376	0.0570	0.0545	2,992.8173
Total		0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Unmitigated	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.4031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Total	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0575					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.4031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Total	14.4667	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

7.0 Water Detail

Bronco Winery Later Phases Construction Area and Employee - Stanislaus County, Winter

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Output

All Phases Operation HDT Only (Summer Daily)

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

Bronco Winery Expansion Truck Only

Stanislaus County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	111.30	1000sqft	2.56	111,300.00	0
Unrefrigerated Warehouse-No Rail	510.53	1000sqft	11.72	510,529.00	0
Parking Lot	6.22	Acre	6.22	270,943.20	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Parking lot based on area of site minus the area of the buildings.

Construction Phase -

Demolition - Remove 2727 sf house with 1,790 sf patio cover

Architectural Coating - Rule 4601 Architectural Coatings

Fleet Mix - Truck Only Run

Vehicle Trips - 50 new truck trips per day with expansion Trip length 50 miles Air District default value

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.08	0.00
tblFleetMix	HHD	0.08	1.00
tblFleetMix	LDA	0.50	0.00
tblFleetMix	LDA	0.50	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	LHD2	6.0470e-003	0.00
tblFleetMix	MCY	4.8650e-003	0.00
tblFleetMix	MCY	4.8650e-003	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MH	1.0670e-003	0.00
tblFleetMix	MH	1.0670e-003	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	OBUS	1.8200e-003	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	SBUS	8.6900e-004	0.00
tblFleetMix	UBUS	1.1830e-003	0.00
tblFleetMix	UBUS	1.1830e-003	0.00

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

tblLandUse	LandUseSquareFeet	510,530.00	510,529.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CC_TL	6.60	50.00
tblVehicleTrips	CNW_TL	6.60	50.00
tblVehicleTrips	CW_TL	14.70	50.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.68	0.10
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.68	0.10
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	1.68	0.10

2.0 Emissions Summary

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.7304	54.6140	42.7219	0.1174	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935
2020	5.1173	37.5891	39.5591	0.1155	5.5432	1.2357	6.7790	1.4903	1.1627	2.6530	0.0000	11,572.0965	11,572.0965	1.1196	0.0000	11,600.0866
2021	438.6583	34.2177	37.1910	0.1135	5.5432	1.0304	6.5735	1.4903	0.9687	2.4590	0.0000	11,376.5466	11,376.5466	1.0858	0.0000	11,403.6920
Maximum	438.6583	54.6140	42.7219	0.1174	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.7304	54.6140	42.7219	0.1174	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935
2020	5.1173	37.5891	39.5591	0.1155	5.5432	1.2357	6.7790	1.4903	1.1627	2.6530	0.0000	11,572.0965	11,572.0965	1.1196	0.0000	11,600.0866
2021	438.6583	34.2177	37.1910	0.1135	5.5432	1.0304	6.5735	1.4903	0.9687	2.4590	0.0000	11,376.5466	11,376.5466	1.0858	0.0000	11,403.6920
Maximum	438.6583	54.6140	42.7219	0.1174	18.2962	2.3921	20.6882	9.9917	2.2007	12.1924	0.0000	11,800.9115	11,800.9115	1.9523	0.0000	11,830.3935

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

[illegible]

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.8091	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Energy	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Mobile	0.8465	26.5447	4.1784	0.0925	2.2270	0.1137	2.3407	0.6100	0.1083	0.7187		9,711.4165	9,711.4165	0.2966		9,718.8307
Total	16.9712	29.4147	6.6533	0.1097	2.2270	0.3320	2.5590	0.6100	0.3271	0.9371		13,154.8511	13,154.8511	0.3629	0.0631	13,182.7363

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.8091	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Energy	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Mobile	0.8465	26.5447	4.1784	0.0925	2.2270	0.1137	2.3407	0.6100	0.1083	0.7187		9,711.4165	9,711.4165	0.2966		9,718.8307
Total	16.9712	29.4147	6.6533	0.1097	2.2270	0.3320	2.5590	0.6100	0.3271	0.9371		13,154.8511	13,154.8511	0.3629	0.0631	13,182.7363

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	9/27/2019	5	20	
2	Site Preparation	Site Preparation	10/1/2019	10/14/2019	5	10	
3	Grading	Grading	10/15/2019	12/2/2019	5	35	
4	Building Construction	Building Construction	12/3/2019	5/3/2021	5	370	
5	Paving	Paving	5/4/2021	5/31/2021	5	20	
6	Architectural Coating	Architectural Coating	6/1/2021	6/28/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 6.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 932,744; Non-Residential Outdoor: 310,915; Striped Parking Area: 16,257 (Architectural Coating – sqft)

OffRoad Equipment

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	21.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	364.00	146.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	73.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2223	0.0000	0.2223	0.0337	0.0000	0.0337			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	3.5134	35.7830	22.0600	0.0388	0.2223	1.7949	2.0172	0.0337	1.6697	1.7033		3,816.899 4	3,816.899 4	1.0618		3,843.445 1

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.8900e-003	0.3043	0.0414	8.5000e-004	0.0184	1.2100e-003	0.0196	5.0300e-003	1.1600e-003	6.1900e-003		89.5344	89.5344	5.4000e-003		89.6695
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1126	0.0704	0.9227	2.1300e-003	0.1916	1.4200e-003	0.1930	0.0508	1.3100e-003	0.0521		211.6170	211.6170	7.2600e-003		211.7986
Total	0.1215	0.3746	0.9641	2.9800e-003	0.2100	2.6300e-003	0.2126	0.0558	2.4700e-003	0.0583		301.1514	301.1514	0.0127		301.4680

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2223	0.0000	0.2223	0.0337	0.0000	0.0337			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.2223	1.7949	2.0172	0.0337	1.6697	1.7033	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.8900e-003	0.3043	0.0414	8.5000e-004	0.0184	1.2100e-003	0.0196	5.0300e-003	1.1600e-003	6.1900e-003		89.5344	89.5344	5.4000e-003		89.6695
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1126	0.0704	0.9227	2.1300e-003	0.1916	1.4200e-003	0.1930	0.0508	1.3100e-003	0.0521		211.6170	211.6170	7.2600e-003		211.7986
Total	0.1215	0.3746	0.9641	2.9800e-003	0.2100	2.6300e-003	0.2126	0.0558	2.4700e-003	0.0583		301.1514	301.1514	0.0127		301.4680

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298		3,766.4529	3,766.4529	1.1917		3,796.2445

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583
Total	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583
Total	0.1351	0.0844	1.1073	2.5500e-003	0.2299	1.7100e-003	0.2316	0.0610	1.5700e-003	0.0625		253.9405	253.9405	8.7100e-003		254.1583

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920		6,140.0195	6,140.0195	1.9426		6,188.5854
Total	4.7389	54.5202	33.3768	0.0620	8.6733	2.3827	11.0560	3.5965	2.1920	5.7885		6,140.0195	6,140.0195	1.9426		6,188.5854

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.4 Grading - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981
Total	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768	0.0620		2.3827	2.3827		2.1920	2.1920	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854
Total	4.7389	54.5202	33.3768	0.0620	8.6733	2.3827	11.0560	3.5965	2.1920	5.7885	0.0000	6,140.0195	6,140.0195	1.9426		6,188.5854

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981
Total	0.1501	0.0938	1.2303	2.8400e-003	0.2555	1.9000e-003	0.2574	0.0678	1.7500e-003	0.0695		282.1561	282.1561	9.6800e-003		282.3981

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6376	18.4783	3.1672	0.0389	0.8939	0.1331	1.0270	0.2574	0.1273	0.3847		4,074.0911	4,074.0911	0.3718		4,083.3851
Worker	2.7317	1.7073	22.3910	0.0516	4.6494	0.0345	4.6839	1.2330	0.0318	1.2648		5,135.2402	5,135.2402	0.1762		5,139.6449
Total	3.3692	20.1856	25.5581	0.0905	5.5433	0.1676	5.7109	1.4903	0.1591	1.6494		9,209.3313	9,209.3313	0.5480		9,223.0300

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6376	18.4783	3.1672	0.0389	0.8939	0.1331	1.0270	0.2574	0.1273	0.3847		4,074.0911	4,074.0911	0.3718		4,083.3851
Worker	2.7317	1.7073	22.3910	0.0516	4.6494	0.0345	4.6839	1.2330	0.0318	1.2648		5,135.2402	5,135.2402	0.1762		5,139.6449
Total	3.3692	20.1856	25.5581	0.0905	5.5433	0.1676	5.7109	1.4903	0.1591	1.6494		9,209.3313	9,209.3313	0.5480		9,223.0300

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5083	16.8971	2.7054	0.0386	0.8939	0.0854	0.9792	0.2573	0.0817	0.3390		4,040.592 0	4,040.592 0	0.3429		4,049.165 0
Worker	2.4892	1.5059	20.0052	0.0500	4.6494	0.0333	4.6827	1.2330	0.0307	1.2637		4,978.441 4	4,978.441 4	0.1538		4,982.287 1
Total	2.9975	18.4030	22.7106	0.0886	5.5432	0.1187	5.6619	1.4903	0.1124	1.6027		9,019.033 5	9,019.033 5	0.4968		9,031.452 1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5083	16.8971	2.7054	0.0386	0.8939	0.0854	0.9792	0.2573	0.0817	0.3390		4,040.592 0	4,040.592 0	0.3429		4,049.165 0
Worker	2.4892	1.5059	20.0052	0.0500	4.6494	0.0333	4.6827	1.2330	0.0307	1.2637		4,978.441 4	4,978.441 4	0.1538		4,982.287 1
Total	2.9975	18.4030	22.7106	0.0886	5.5432	0.1187	5.6619	1.4903	0.1124	1.6027		9,019.033 5	9,019.033 5	0.4968		9,031.452 1

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4126	15.4422	2.3401	0.0382	0.8938	0.0393	0.9331	0.2573	0.0376	0.2949		4,002.357 7	4,002.357 7	0.3316		4,010.646 7
Worker	2.2990	1.3434	18.2757	0.0484	4.6494	0.0324	4.6818	1.2330	0.0298	1.2628		4,820.825 1	4,820.825 1	0.1382		4,824.2811
Total	2.7116	16.7856	20.6158	0.0866	5.5432	0.0717	5.6149	1.4903	0.0675	1.5577		8,823.182 7	8,823.182 7	0.4698		8,834.927 8

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4126	15.4422	2.3401	0.0382	0.8938	0.0393	0.9331	0.2573	0.0376	0.2949		4,002.3577	4,002.3577	0.3316		4,010.6467
Worker	2.2990	1.3434	18.2757	0.0484	4.6494	0.0324	4.6818	1.2330	0.0298	1.2628		4,820.8251	4,820.8251	0.1382		4,824.2811
Total	2.7116	16.7856	20.6158	0.0866	5.5432	0.0717	5.6149	1.4903	0.0675	1.5577		8,823.1827	8,823.1827	0.4698		8,834.9278

3.6 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.8148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0704	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028
Total	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.8148					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0704	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028
Total	0.0947	0.0554	0.7531	2.0000e-003	0.1916	1.3400e-003	0.1929	0.0508	1.2300e-003	0.0520		198.6604	198.6604	5.7000e-003		198.8028

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	437.9783					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	438.1972	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.7 Architectural Coating - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069
Total	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	437.9783					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	438.1972	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069
Total	0.4611	0.2694	3.6652	9.7100e-003	0.9324	6.5000e-003	0.9389	0.2473	5.9900e-003	0.2533		966.8138	966.8138	0.0277		967.5069

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8465	26.5447	4.1784	0.0925	2.2270	0.1137	2.3407	0.6100	0.1088	0.7187		9,711.4165	9,711.4165	0.2966		9,718.8307
Unmitigated	0.8465	26.5447	4.1784	0.0925	2.2270	0.1137	2.3407	0.6100	0.1088	0.7187		9,711.4165	9,711.4165	0.2966		9,718.8307

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	51.05	51.05	51.05	929,165	929,165
Total	51.05	51.05	51.05	929,165	929,165

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	50.00	50.00	50.00	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589
Natural Gas Unmitigated	0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3979.36	0.0429	0.3901	0.3277	2.3400e-003		0.0297	0.0297		0.0297	0.0297		468.1596	468.1596	8.9700e-003	8.5800e-003	470.9416
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	25288.7	0.2727	2.4793	2.0826	0.0149		0.1884	0.1884		0.1884	0.1884		2,975.1376	2,975.1376	0.0570	0.0545	2,992.8173
Total		0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3.97936	0.0429	0.3901	0.3277	2.3400e-003		0.0297	0.0297		0.0297	0.0297		468.1596	468.1596	8.9700e-003	8.5800e-003	470.9416
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	25.2887	0.2727	2.4793	2.0826	0.0149		0.1884	0.1884		0.1884	0.1884		2,975.1376	2,975.1376	0.0570	0.0545	2,992.8173
Total		0.3156	2.8694	2.4103	0.0172		0.2181	0.2181		0.2181	0.2181		3,443.2971	3,443.2971	0.0660	0.0631	3,463.7589

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.8091	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Unmitigated	15.8091	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3999					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.4031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Total	15.8091	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3999					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.4031					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467
Total	15.8091	6.0000e-004	0.0645	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1375	0.1375	3.7000e-004		0.1467

7.0 Water Detail

Bronco Winery Expansion Truck Only - Stanislaus County, Summer

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

EMFAC 2017 Emission Factors

[illegible]

INTENTIONALLY LEFT BLANK

Appendix B:
San Joaquin Valley Air Pollution Control
District Amicus Brief on Friant Ranch
Supreme Court Decision

INTENTIONALLY LEFT BLANK

SUPREME COURT COPY

CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

**SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,**
Plaintiffs and Appellants

v.

COUNTY OF FRESNO,
Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

SUPREME COURT
FILED

APR 13 2015

Frank A. McGuire, Clerk
Deputy

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

CATHERINE T. REDMOND (State Bar No. 226957)
261 High Street
Duxbury, Massachusetts 02332
Tel. (339) 236-5720
Catherinetredmond22@gmail.com

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
Annette Ballatore-Williamson, District Counsel (State Bar. No. 192176)
1990 E. Gettysburg Avenue
Fresno, California 93726
Tel. (559) 230-6033
Annette.Ballatore-Williamson@valleyair.org

Counsel for San Joaquin Valley Unified Air Pollution Control District

CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,
Plaintiffs and Appellants

v.

COUNTY OF FRESNO,
Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

CATHERINE T. REDMOND (State Bar No. 226957)
261 High Street
Duxbury, Massachusetts 02332
Tel. (339) 236-5720
Catherinetredmond22@gmail.com

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
Annette Ballatore-Williamson, District Counsel (State Bar. No. 192176)
1990 E. Gettysburg Avenue
Fresno, California 93726
Tel. (559) 230-6033
Annette.Ballatore-Williamson@valleyair.org

Counsel for San Joaquin Valley Unified Air Pollution Control District

APPLICATION

Pursuant to California Rules of Court 8.520(f)(1), proposed Amicus Curiae San Joaquin Valley Unified Air Pollution Control District hereby requests permission from the Chief Justice to file an amicus brief in support of Defendant and Respondent, County of Fresno, and Defendant and Real Parties in Interest Friant Ranch, L.P. Pursuant to Rule 8.520(f)(5) of the California Rules of Court, the proposed amicus curiae brief is combined with this Application. The brief addresses the following issue certified by this Court for review:

Is an EIR adequate when it identifies the health impacts of air pollution and quantifies a project's expected emissions, or does CEQA further require the EIR to *correlate* a project's air quality emissions to specific health impacts?

As of the date of this filing, the deadline for the final reply brief on the merits was March 5, 2015. Accordingly, under Rule 8.520(f)(2), this application and brief are timely.

1. Background and Interest of San Joaquin Valley Unified Air Pollution Control District

The San Joaquin Valley Unified Air Pollution Control District ("Air District") regulates air quality in the eight counties comprising the San Joaquin Valley ("Central Valley"): Kern, Tulare, Madera, Fresno, Merced, San Joaquin, Stanislaus, and Kings, and is primarily responsible for attaining air quality standards within its jurisdiction. After billions of dollars of investment by Central Valley businesses, pioneering air quality regulations, and consistent efforts by residents, the Central Valley air basin has made historic improvements in air quality.

The Central Valley's geographical, topographical and meteorological features create exceptionally challenging air quality

conditions. For example, it receives air pollution transported from the San Francisco Bay Area and northern Central Valley communities, and the southern portion of the Central Valley includes three mountain ranges (Sierra, Tehachapi, and Coastal) that, under some meteorological conditions, effectively trap air pollution. Central Valley air pollution is only a fraction of what the Bay Area and Los Angeles produce, but these natural conditions result in air quality conditions that are only marginally better than Los Angeles, even though about ten times more pollution is emitted in the Los Angeles region. Bay Area air quality is much better than the Central Valley's, even though the Bay Area produces about six times more pollution. The Central Valley also receives air pollution transported from the Bay Area and northern counties in the Central Valley, including Sacramento, and transboundary anthropogenic ozone from as far away as China.

Notwithstanding these challenges, the Central Valley has reduced emissions at the same or better rate than other areas in California and has achieved unparalleled milestones in protecting public health and the environment:

- In the last decade, the Central Valley became the first air basin classified by the federal government under the Clean Air Act as a “serious nonattainment” area to come into attainment of health-based National Ambient Air Quality Standard (“NAAQS”) for coarse particulate matter (PM10), an achievement made even more notable given the Valley's extensive agricultural sector. Unhealthy levels of particulate matter can cause and exacerbate a range of chronic and acute illnesses.
- In 2013, the Central Valley became the first air basin in the country to improve from a federal designation of “extreme” nonattainment to

actually attain (and quality for an attainment designation) of the 1-hour ozone NAAQS; ozone creates “smog” and, like PM10, causes adverse health impacts.

- The Central Valley also is in full attainment of federal standards for lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide.
- The Central Valley continues to make progress toward compliance with its last two attainment standards, with the number of exceedences for the 8-hour ozone NAAQS reduced by 74% (for the 1997 standard) and 38% (for the 2008 standard) since 1991, and for the small particulate matter (PM2.5) NAAQS reduced by 85% (for the 1997 standard) and 61% (for the 2006 standard).

Sustained improvement in Central Valley air quality requires a rigorous and comprehensive regulatory framework that includes prohibitions (e.g., on wood-burning fireplaces in new residences), mandates (e.g., requiring the installation of best available pollution reduction technologies on new and modified equipment and industrial operations), innovations (e.g., fees assessed against residential development to fund pollution reduction actions to “offset” vehicular emissions associated with new residences), incentive programs (e.g., funding replacements of older, more polluting heavy duty trucks and school buses)¹, ongoing planning for continued air quality improvements, and enforcement of Air District permits and regulations.

The Air District is also an expert air quality agency for the eight counties and cities in the San Joaquin Valley. In that capacity, the Air District has developed air quality emission guidelines for use by the Central

¹ San Joaquin’s incentive program has been so successful that through 2012, it has awarded over \$ 432 million in incentive funds and has achieved 93,349 tons of lifetime emissions reductions. See SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 2012 PM2.5 PLAN, 6-6 (2012) available at <http://www.valleyair.org/Workshops/postings/2012/12-20-12PM25/FinalVersion/06%20Chapter%206%20Incentives.pdf>.

Valley counties and cities that implement the California Environment Quality Act (CEQA).² In its guidance, the Air District has distinguished between toxic air contaminants and criteria air pollutants.³ Recognizing this distinction, the Air District's CEQA Guidance has adopted distinct thresholds of significance for *criteria* pollutants (i.e., ozone, PM2.5 and their respective precursor pollutants) based upon scientific and factual data which demonstrates the level that can be accommodated on a cumulative basis in the San Joaquin Valley without affecting the attainment of the applicable NAAQS.⁴ For *toxic air* pollutants, the District has adopted different thresholds of significance which scientific and factual data demonstrates has the potential to expose sensitive receptors (i.e., children, the elderly) to levels which may result in localized health impacts.⁵

The Air District's CEQA Guidance was followed by the County of Fresno in its environment review of the Friant Ranch project, for which the Air District also served as a commenting agency. The Court of Appeal's holding, however, requiring correlation between the project's criteria

² See, e.g., SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, PLANNING DIVISION, GUIDE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS (2015), available at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf ("CEQA Guidance").

³ Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants regulated by the United States Environmental Protection Agency ("EPA") and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health, they are distinguishable from toxic air contaminants and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of toxic air contaminants occurs solely under section 112 of the Act. Compare 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 with 42 U.S.C. § 7411.

⁴ See, e.g., CEQA Guidance at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf, pp. 64-66, 80.

⁵ See, e.g., CEQA Guidance at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf, pp. 66, 99-101.

pollutants and local health impacts, departs from the Air District's Guidance and approved methodology for assessing criteria pollutants. A close reading of the administrative record that gave rise to this issue demonstrates that the Court's holding is based on a misunderstanding of the distinction between toxic air contaminants (for which a local health risk assessment is feasible and routinely performed) and criteria air pollutants (for which a local health risk assessment is not feasible and would result in speculative results).⁶ The Air District has a direct interest in ensuring the lawfulness and consistent application of its CEQA Guidance, and will explain how the Court of Appeal departed from the Air District's long-standing CEQA Guidance in addressing criteria pollutants and toxic air contaminants in this amicus brief.

2. How the Proposed Amicus Curiae Brief Will Assist the Court

As counsel for the proposed amicus curiae, we have reviewed the briefs filed in this action. In addition to serving as a "commentary agency" for CEQA purposes over the Friant Ranch project, the Air District has a strong interest in assuring that CEQA is used for its intended purpose, and believes that this Court would benefit from additional briefing explaining the distinction between criteria pollutants and toxic air contaminants and the different methodologies employed by local air pollution control agencies such as the Air District to analyze these two categories of air pollutants under CEQA. The Air District will also explain how the Court of Appeal's opinion is based upon a fundamental misunderstanding of these two different approaches by requiring the County of Fresno to correlate the project's *criteria* pollution emissions with *local* health impacts. In doing

⁶ CEQA does not require speculation. *See, e.g., Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.*, 6 Cal. 4th 1112, 1137 (1993) (upholding EIR that failed to evaluate cumulative toxic air emission increases given absence of any acceptable means for doing so).

so, the Air District will provide helpful analysis to support its position that at least insofar as criteria pollutants are concerned, CEQA does not require an EIR to correlate a project's air quality emissions to specific health impacts, because such an analysis is not reasonably feasible.

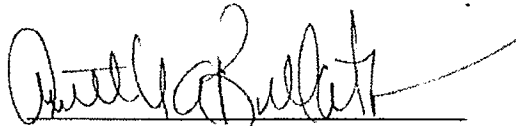
Rule 8.520 Disclosure

Pursuant to Cal. R. 8.520(f)(4), neither the Plaintiffs nor the Defendant or Real Party In Interest or their respective counsel authored this brief in whole or in part. Neither the Plaintiffs nor the Defendant or Real Party in Interest or their respective counsel made any monetary contribution towards or in support of the preparation of this brief.

CONCLUSION

On behalf of the San Joaquin Valley Unified Air Pollution Control District, we respectfully request that this Court accept the filing of the attached brief.

Dated: April 2, 2015



Annette A. Ballatore-Williamson
District Counsel
Attorney for Proposed Amicus Curiae

SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL
DISTRICT

CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,
Plaintiffs and Appellants

v.

COUNTY OF FRESNO,
Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726

**AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

CATHERINE T. REDMOND (State Bar No. 226957)
261 High Street
Duxbury, Massachusetts 02332
Tel. (339) 236-5720
Catherineredmond22@gmail.com

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
Annette A. Ballatore-Williamson, District Counsel (State Bar. No. 192176)
1990 E. Gettysburg Avenue
Fresno, California 93726
Tel. (559) 230-6033
Annette.Ballatore-Williamson@valleyair.org
Counsel for San Joaquin Valley Unified Air Pollution Control District

TABLE OF CONTENTS

APPLICATION.....	1
1. Background and Interest of San Joaquin Valley Unified Air Pollution Control District.....	1
2. How the Proposed Amicus Curiae Brief Will Assist the Court	5
CONCLUSION.....	6
I. INTRODUCTION	1
II. THE COURT OF APPEAL ERRED IN FINDING THE FRIANT RANCH EIR INADEQUATE FOR FAILING TO ANALYZE THE SPECIFIC HUMAN HEALTH IMPACTS ASSOCIATED CRITERIA AIR POLLUTANTS.....	3
A, Currently Available Modeling Tools are not Equipped to Provide a Meaningful Analysis of the Correlation between an Individual Development Project's Air Emissions and Specific Human Health Impacts.....	4
B. The Court of Appeal Improperly Extrapolated a Request for a Health Risk Assessment for Toxic Air Contaminants into a Requirement that the EIR contain an Analysis of Localized Health Impacts Associated with Criteria Air Pollutants	11
III. CONCLUSION.....	15
CERTIFICATE OF WORD COUNT.....	17

TABLE OF AUTHORITIES

CASES

<i>Bakersfield Citizens for Local Control v. City of Bakersfield</i> (2004) 124 Cal.App.4th 1184, 1199, 22 Cal.Rptr.3d 203	15
<i>Citizens for Responsible Equitable Environmental Development</i> <i>v. City of San Diego</i> , (2011) 196 Cal.App.4th 515, 527 129 Cal.Rptr.3d 512, 521	14
<i>Kings County Farm Bureau v. City of Hanford</i> (1990) 221 Cal.App.3d 692, 717 n. 8.	10
<i>Sierra Club v. City of Orange</i> (2008) 163 Cal.App.4 th 523, 535, 78 Cal.Rptr.3d 1, 13	14
<i>Sierra Club v. City of Orange</i> , 163 Cal.App.4 th at 536.....	15
<i>Sierra Club v. County of Fresno</i> (2014) 172 Cal.Rptr.3d 271, 306.....	12
<i>Sierra Club, supra</i> , 172 Cal.Rptr.3d at 303; AR 4554	8

FEDERAL STATUTES

United States Environmental Protection Agency (“EPA”) Clean Air Act. 42 U.S.C. § 7412	1,2,5,6
42 U.S.C. § 7412.....	1
U.S.C. §§ 7407 – 7411.....	1
U.S.C. §§ 7501 – 7515.....	1
42 U.S.C. § 7411.....	1
42 U.S.C. § 7412(b).....	1,2
42 U.S.C. § 7409(b)(1)	2, 6

CALIFORNIA STATUTES

California Environmental Quality Act (“CEQA”).....	<i>passim</i>
---	---------------

OTHER AUTHORITIES

- United States Environmental Protection Agency,
Ground-level Ozone: Basic Information,
available at: <http://www.epa.gov/airquality/ozonepollution/basic.html>
(visited March 10, 2015).....4
- San Joaquin Valley Air Pollution Control District 2007 Ozone Plan*,
Executive Summary p. ES-6, available at:
http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/03%20Executive%20Summary.pdf (visited March 10, 2015).....5
- United States Environmental Protection Agency, *Particulate Matter: Basic Information*, available at:
<http://www.epa.gov/airquality/particulatepollution/basic.html>
(visited March 10, 2015).....5
- United States Environmental Protection Agency, *Table of National Ambient Air Quality Standards*, available at:
<http://www.epa.gov/air/criteria.html#3> (visited March 10, 2015)6
- San Joaquin Valley Unified Air Pollution Control District 2013 Plan for the Revoked 1-Hour Ozone Standard*, Ch. 2 p. 2-16,
available at: http://www.valleyair.org/Air_Quality_Plans/OzoneOneHourPlan2013/02Chapter2ScienceTrendsModeling.pdf (visited March 10, 2015).....6
- Ch. 2 p. 2-19 (visited March 12, 2015); *San Joaquin Valley Unified Air Pollution Control District 2008 PM2.5 Plan*,
Appendix F, pp. F-2 – F-5, available at:
http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Final_Adopted_PM2.5/20%20Appendix%20F.pdf (visited March 19, 2015).....6
- San Joaquin Valley Unified Air Pollution Control District Rule 2201 §§ 2.0; 3.3.9; 4.14.1*, available at:
<http://www.valleyair.org/rules/currntrules/Rule22010411.pdf>
(visited March 19, 2015).....7
- San Joaquin Valley Unified Air Pollution Control District Guide to Assessing and Mitigating Air Quality Impacts*, (March 19, 2015) p. 22,
available at:
<http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf> (visited March 30, 2015).....7

San Joaquin Valley Unified Air Pollution Control District Environmental Review Guidelines (Aug. 2000) p. 4-11, available at: http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20_August%202000_.pdf (visited March 12, 2015).....8

San Joaquin Valley Unified Air Pollution Control District 2007 Ozone Plan, Appendix B pp. B-6, B-9, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/19%20Appendix%20B%20April%202007.pdf (visited March 12, 2015).....9

I. INTRODUCTION.

The San Joaquin Valley Unified Air Pollution Control District (“Air District”) respectfully submits that the Court of Appeal erred when it held that the air quality analysis contained in the Environmental Impact Report (“EIR”) for the Friant Ranch development project was inadequate under the California Environmental Quality Act (“CEQA”) because it did not include an analysis of the correlation between the project’s criteria air pollutants and the potential adverse human health impacts. A close reading of the portion of the administrative record that gave rise to this issue demonstrates that the Court’s holding is based on a misunderstanding of the distinction between toxic air contaminants and criteria air pollutants.

Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants (hereinafter referred to as “TACs”) regulated by the United States Environmental Protection Agency (“EPA”) and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health,

they are distinguishable from TACs and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of TACs occurs solely under section 112 of the Act. *Compare* 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 *with* 42 U.S.C. § 7411.

The most relevant difference between criteria pollutants and TACs for purposes of this case is the manner in which human health impacts are accounted for. While it is common practice to analyze the correlation between an individual facility's TAC emissions and the expected localized human health impacts, such is not the case for criteria pollutants. Instead, the human health impacts associated with criteria air pollutants are analyzed and taken into consideration when EPA sets the national ambient air quality standard ("NAAQS") for each criteria pollutant. 42 U.S.C. § 7409(b)(1). The health impact of a particular criteria pollutant is analyzed on a regional and not a facility level based on how close the area is to complying with (attaining) the NAAQS. Accordingly, while the type of individual facility / health impact analysis that the Court of Appeal has required is a customary practice for TACs, it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task.

It is clear from a reading of both the administrative record and the Court of Appeal's decision that the Court did not have the expertise to fully

appreciate the difference between TACs and criteria air pollutants. As a result, the Court has ordered the County of Fresno to conduct an analysis that is not practicable and not likely yield valid information. The Air District respectfully requests that this portion of the Court of Appeal's decision be reversed.

II. THE COURT OF APPEAL ERRED IN FINDING THE FRIANT RANCH EIR INADEQUATE FOR FAILING TO ANALYZE THE SPECIFIC HUMAN HEALTH IMPACTS ASSOCIATED CRITERIA AIR POLLUTANTS.

Although the Air District does not take lightly the amount of air emissions at issue in this case, it submits that the Court of Appeal got it wrong when it required Fresno County to revise the Friant Ranch EIR to include an analysis correlating the criteria air pollutant emissions associated with the project with specific, localized health-impacts. The type of analysis the Court of Appeal has required will not yield reliable information because currently available modeling tools are not well suited for this task. Further, in reviewing this issue de novo, the Court of Appeal failed to appreciate that it lacked the scientific expertise to appreciate the significant differences between a health risk assessment commonly performed for toxic air contaminants and a similar type of analysis it felt should have been conducted for criteria air pollutants.

///

///

A. Currently Available Modeling Tools are not Equipped to Provide a Meaningful Analysis of the Correlation between an Individual Development Project's Air Emissions and Specific Human Health Impacts.

In order to appreciate the problematic nature of the Court of Appeals' decision requiring a health risk type analysis for criteria air pollutants, it is important to understand how the relevant criteria pollutants (ozone and particulate matter) are formed, dispersed and regulated.

Ground level ozone (smog) is not directly emitted into the air, but is formed when precursor pollutants such as oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) are emitted into the atmosphere and undergo complex chemical reactions in the process of sunlight.¹ Once formed, ozone can be transported long distances by wind.² Because of the complexity of ozone formation, a specific tonnage amount of NO_x or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area. In fact, even rural areas that have relatively low tonnages of emissions of NO_x or VOCs can have high levels of ozone concentration simply due to wind transport.³ Conversely, the San Francisco Bay Area has six times more NO_x and VOC emissions per square mile than the San Joaquin Valley, but experiences lower

¹ See United States Environmental Protection Agency, *Ground-level Ozone: Basic Information*, available at: <http://www.epa.gov/airquality/ozonepollution/basic.html> (visited March 10, 2015).

² *Id.*

³ *Id.*

concentrations of ozone (and better air quality) simply because sea breezes disperse the emissions.⁴

Particulate matter (“PM”) can be divided into two categories: directly emitted PM and secondary PM.⁵ While directly emitted PM can have a localized impact, the tonnage emitted does not always equate to the local PM concentration because it can be transported long distances by wind.⁶ Secondary PM, like ozone, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as sulfur dioxides (SOx) and NOx.⁷ Because of the complexity of secondary PM formation, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area.

The disconnect between the *tonnage* of precursor pollutants (NOx, SOx and VOCs) and the *concentration* of ozone or PM formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects, but the concentration of resulting ozone or PM. Indeed, the national ambient air quality standards (“NAAQS”), which are statutorily required to be set by the United States Environmental Protection

⁴ *San Joaquin Valley Air Pollution Control District 2007 Ozone Plan*, Executive Summary p. ES-6, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/03%20Executive%20Summary.pdf (visited March 10, 2015).

⁵ United States Environmental Protection Agency, *Particulate Matter: Basic Information*, available at: <http://www.epa.gov/airquality/particulatepollution/basic.html> (visited March 10, 2015).

⁶ *Id.*

⁷ *Id.*

Agency (“EPA”) at levels that are “requisite to protect the public health,” 42 U.S.C. § 7409(b)(1), are established as concentrations of ozone or particulate matter and not as tonnages of their precursor pollutants.⁸

Attainment of a particular NAAQS occurs when the concentration of the relevant pollutant remains below a set threshold on a consistent basis throughout a particular region. For example, the San Joaquin Valley attained the 1-hour ozone NAAQS when ozone concentrations remained at or below 0.124 parts per million Valley-wide on 3 or fewer days over a 3-year period.⁹ Because the NAAQS are focused on achieving a particular concentration of pollution region-wide, the Air District’s tools and plans for attaining the NAAQS are regional in nature.

For instance, the computer models used to simulate and predict an attainment date for the ozone or particulate matter NAAQS in the San Joaquin Valley are based on regional inputs, such as regional inventories of precursor pollutants (NO_x, SO_x and VOCs) and the atmospheric chemistry and meteorology of the Valley.¹⁰ At a very basic level, the models simulate future ozone or PM levels based on predicted changes in precursor

⁸ See, e.g., United States Environmental Protection Agency, *Table of National Ambient Air Quality Standards*, available at: <http://www.epa.gov/air/criteria.html#3> (visited March 10, 2015).

⁹ *San Joaquin Valley Unified Air Pollution Control District 2013 Plan for the Revoked 1-Hour Ozone Standard*, Ch. 2 p. 2-16, available at: http://www.valleyair.org/Air_Quality_Plans/OzoneOneHourPlan2013/02Chapter2ScienceTrendsModeling.pdf (visited March 10, 2015).

¹⁰ *Id.* at Ch. 2 p. 2-19 (visited March 12, 2015); *San Joaquin Valley Unified Air Pollution Control District 2008 PM_{2.5} Plan*, Appendix F, pp. F-2 – F-5, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Final_Adopted_PM2.5/20%20Appendix%20F.pdf (visited March 19, 2015).

emissions Valley wide.¹¹ Because the NAAQS are set levels necessary to protect human health, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.

The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the date that the Valley attains the NAAQS. Rather, the Air District's modeling and planning strategy is regional in nature and based on the extent to which *all* of the emission-generating sources in the Valley (current and future) must be controlled in order to reach attainment.¹²

Accordingly, the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the Valley can accommodate without affecting the attainment date for the NAAQS.¹³ The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources permitted by the Air District must "offset" their emissions.¹⁴ This "offset"

¹¹ *Id.*

¹² Although the Air District does have a dispersion modeling tool used during its air permitting process that is used to predict whether a particular project's directly emitted PM will either cause an exceedance of the PM NAAQS or contribute to an existing exceedance, this model bases the prediction on a worst case scenario of emissions and meteorology and has no provision for predicting any associated human health impacts. Further, this analysis is only performed for stationary sources (factories, oil refineries, etc.) that are required to obtain a New Source Review permit from the Air District and not for development projects such as Friant Ranch over which the Air District has no preconstruction permitting authority. See San Joaquin Valley Unified Air Pollution Control District Rule 2201 §§ 2.0; 3.3.9; 4.14.1, available at: <http://www.valleyair.org/rules/currentrules/Rule22010411.pdf> (visited March 19, 2015).

¹³ *San Joaquin Valley Unified Air Pollution Control District Guide to Assessing and Mitigating Air Quality Impacts*, (March 19, 2015) p. 22, available at: <http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf> (visited March 30, 2015).

¹⁴ *Id.* at pp. 22, 25.

level allows for growth while keeping the cumulative effects of all new sources at a level that will not impede attainment of the NAAQS.¹⁵ In the Valley, these thresholds are 15 tons per year of PM, and 10 tons of NOx or VOC per year. *Sierra Club, supra*, 172 Cal.Rptr.3d at 303; AR 4554. Thus, the CEQA air quality analysis for criteria pollutants is not really a localized, project-level impact analysis but one of regional, “cumulative impacts.”

Accordingly, the significance thresholds applied in the Friant Ranch EIR (15 tons per year of PM and 10 tons of NOx or VOCs) are not intended to be indicative of any localized human health impact that the project may have. While the health effects of air pollution are of primary concern to the Air District (indeed, the NAAQS are established to protect human health), the Air District is simply not equipped to analyze whether and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area. This is true even for projects with relatively high levels of emissions of criteria pollutant precursor emissions.

For instance, according to the EIR, the Friant Ranch project is estimated to emit 109.52 tons per year of ROG (VOC), 102.19 tons per year of NOx, and 117.38 tons per year of PM. Although these levels well

¹⁵ ¹⁵ *San Joaquin Valley Unified Air Pollution Control District Environmental Review Guidelines* (Aug. 2000) p. 4-11, available at: http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20_August%202000_.pdf (visited March 12, 2015).

exceed the Air District's CEQA significance thresholds, this does not mean that one can easily determine the concentration of ozone or PM that will be created at or near the Friant Ranch site on a particular day or month of the year, or what specific health impacts will occur. Meteorology, the presence of sunlight, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone or PM. This is especially true for a project like Friant Ranch where most of the criteria pollutant emissions derive not from a single "point source," but from area wide sources (consumer products, paint, etc.) or mobile sources (cars and trucks) driving to, from and around the site.

In addition, it would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have. As discussed above, the currently available modeling tools are equipped to model the impact of *all* emission sources in the Valley on attainment. According to the most recent EPA-approved emission inventory, the NO_x inventory for the Valley is for the year 2014 is 458.2 tons per day, or 167,243 tons per year and the VOC (or ROG) inventory is 361.7 tons per day, or 132,020.5 tons per year.¹⁶ Running the photochemical grid model used for predicting ozone attainment with the

¹⁶ *San Joaquin Valley Unified Air Pollution Control District 2007 Ozone Plan*, Appendix B pp. B-6, B-9, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/19%20Appendix%20B%20April%202007.pdf (visited March 12, 2015).

emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information given the relative scale involved.

Finally, even once a model is developed to accurately ascertain local increases in concentrations of photochemical pollutants like ozone and some particulates, it remains impossible, using today's models, to correlate that increase in concentration to a specific health impact. The reason is the same: such models are designed to determine regional, population-wide health impacts, and simply are not accurate when applied at the local level.

For these reasons, it is not the norm for CEQA practitioners, including the Air District, to conduct an analysis of the localized health impacts associated with a project's criteria air pollutant emissions as part of the EIR process. When the accepted scientific method precludes a certain type of analysis, "the court cannot impose a legal standard to the contrary." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 717 n. 8. However, that is exactly what the Court of Appeal has done in this case. Its decision upends the way CEQA air quality analysis of criteria pollutants occurs and should be reversed.

///

///

///

B. The Court of Appeal Improperly Extrapolated a Request for a Health Risk Assessment for Toxic Air Contaminants into a Requirement that the EIR contain an Analysis of Localized Health Impacts Associated with Criteria Air Pollutants.

The Court of Appeal's error in requiring the new health impact analysis for criteria air pollutants clearly stems from a misunderstanding of terms of art commonly used in the air pollution field. More specifically, the Court of Appeal (and Appellants Sierra Club et al.) appear to have confused the health risk analysis ("HRA") performed to determine the health impacts associated with a project's toxic air contaminants ("TACs"), with an analysis correlating a project's criteria air pollutants (ozone, PM and the like) with specific localized health impacts.

The first type of analysis, the HRA, is commonly performed during the Air District's stationary source permitting process for projects that emit TACs and is, thus, incorporated into the CEQA review process. An HRA is a comprehensive analysis to evaluate and predict the dispersion of TACs emitted by a project and the potential for exposure of human populations. It also assesses and quantifies both the individual and population-wide health risks associated with those levels of exposure. There is no similar analysis conducted for criteria air pollutants. Thus, the second type of analysis (required by the Court of Appeal), is not currently part of the Air District's process because, as outlined above, the health risks associated

with exposure to criteria pollutants are evaluated on a regional level based on the region's attainment of the NAAQS.

The root of this confusion between the types of analyses conducted for TACs versus criteria air pollutants appears to stem from a comment that was presented to Fresno County by the City of Fresno during the administrative process.

In its comments on the draft EIR, the City of Fresno (the only party to raise this issue) stated:

[t]he EIR must disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area. The EIR should be revised to disclose and determine the significance of TAC impacts, and of human health risks due to exposure to Project-related air emissions.

(AR 4602.)

In determining that the issue regarding the correlation between the Friant Ranch project's criteria air pollutants and adverse health impacts was adequately exhausted at the administrative level, the Court of Appeal improperly read the first two sentences of the City of Fresno's comment in isolation rather than in the context of the entire comment. *See Sierra Club v. County of Fresno* (2014) 172 Cal.Rptr.3d 271, 306. Although the comment first speaks generally in terms of "human health related effects" and "air pollution," it requests only that the EIR be revised to disclose "the significance of TACs" and the "human health risks due to exposure."

The language of this request in the third sentence of the comment is significant because, to an air pollution practitioner, the language would only have indicated only that a HRA for TACs was requested, and not a separate analysis of the health impacts associated with the project's criteria air pollutants. Fresno County clearly read the comment as a request to perform an HRA for TACs and limited its response accordingly. (AR 4602.)¹⁷ The Air District submits that it would have read the City's comment in the same manner as the County because the City's use of the terms "human health risks" and "TACs" signal that an HRA for TACs is being requested. Indeed, the Air District was also concerned that an HRA be conducted, but understood that it was not possible to conduct such an analysis until the project entered the phase where detailed site specific information, such as the types of emission sources and the proximity of the sources to sensitive receptors became available. (AR 4553.)¹⁸ The City of Fresno was apparently satisfied with the County's discussion of human health risks, as it did not raise the issue again when it commented on the final EIR. (AR 8944 – 8960.)

¹⁷ Appellants do not challenge the manner in which the County addressed TACs in the EIR. (Appellants' Answer Brief p. 28 fn. 7.)

¹⁸ Appellants rely on the testimony of Air District employee, Dan Barber, as support for their position that the County should have conducted an analysis correlating the project's criteria air pollutant emissions with localized health impacts. (Appellants Answer Brief pp. 10-11; 28.) However, Mr. Barber's testimony simply reinforces the Air District's concern that a risk assessment (HRA) be conducted once the actual details of the project become available. (AR 8863.) As to criteria air pollutants, Mr. Barber's comments are aimed at the Air District's concern about the amount of emissions and the fact that the emissions will make it "more difficult for Fresno County and the Valley to reach attainment which means that the health of Valley residents maybe [sic] adversely impacted." Mr. Barber says nothing about conducting a separate analysis of the localized health impacts the project's emissions may have.

The Court of Appeal's holding, which incorrectly extrapolates a request for an HRA for TACs into a new analysis of the localized health impacts of the project's criteria air pollutants, highlights two additional errors in the Court's decision.

First, the Court of Appeal's holding illustrates why the Court should have applied the deferential substantial evidence standard of review to the issue of whether the EIR's air quality analysis was sufficient. The regulation of air pollution is a technical and complex field and the Court of Appeal lacked the expertise to fully appreciate the difference between TACs and criteria air pollutants and tools available for analyzing each type of pollutant.

Second, it illustrates that the Court likely got it wrong when it held that the issue regarding the criteria pollutant / localized health impact analysis was properly exhausted during the administrative process. In order to preserve an issue for the court, '[t]he "exact issue" must have been presented to the administrative agency....' [Citation.] *Citizens for Responsible Equitable Environmental Development v. City of San Diego*, (2011) 196 Cal.App.4th 515, 527 129 Cal.Rptr.3d 512, 521; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 535, 78 Cal.Rptr.3d 1, 13. "[T]he objections must be sufficiently specific so that the agency has the

opportunity to evaluate and respond to them.’ [Citation.]” *Sierra Club v. City of Orange*, 163 Cal.App.4th at 536.¹⁹

As discussed above, the City’s comment, while specific enough to request a commonly performed HRA for TACs, provided the County with no notice that it should perform a new type of analysis correlating criteria pollutant tonnages to specific human health effects. Although the parties have not directly addressed the issue of failure to exhaust administrative remedies in their briefs, the Air District submits that the Court should consider how it affects the issues briefed by the parties since “[e]xhaustion of administrative remedies is a jurisdictional prerequisite to maintenance of a CEQA action.” *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1199, 22 Cal.Rptr.3d 203.

III. CONCLUSION

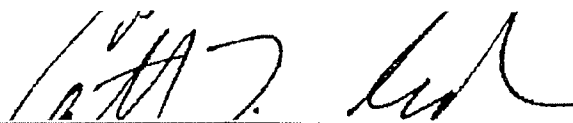
For all of the foregoing reasons, the Air District respectfully requests that the portion of the Court of Appeal’s decision requiring an analysis correlating the localized human health impacts associated with an individual project’s criteria air pollutant emissions be reversed.

¹⁹ *Sierra Club v. City of Orange*, is illustrative here. In that case, the plaintiffs challenged an EIR approved for a large planned community on the basis that the EIR improperly broke up the various environmental impacts by separate project components or “piecemealed” the analysis in violation of CEQA. In evaluating the defense that the plaintiffs had failed to adequately raise the issue at the administrative level, the Court held that comments such as “the use of a single document for both a project-level and a program-level EIR [is] ‘confusing’,” and “[t]he lead agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project,” were too vague to fairly raise the argument of piecemealing before the agency. *Sierra Club v. City of Orange*, 163 Cal.App.4th at 537.

correlating the localized human health impacts associated with an individual project's criteria air pollutant emissions be reversed.

Respectfully submitted,

Dated: April 2, 2015

A handwritten signature in black ink, appearing to read 'C. Redmond', is written over a horizontal line.

Catherine T. Redmond
Attorney for Proposed Amicus
Curiae

SAN JOAQUIN VALLEY
UNIFIED
AIR POLLUTION CONTROL
DISTRICT

CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.204 of the California Rules of Court, I hereby certify that this document, based on the Word County feature of the Microsoft Word software program used to compose and print this document, contains, exclusive of caption, tables, certificate of word count, signature block and certificate of service, 3806 words.

Dated: April 2, 2015

A handwritten signature in cursive script, appearing to read 'Annette A. Ballatore-Williamson', written over a horizontal line.

Annette A. Ballatore-Williamson
District Counsel (SBN 192176)

Sierra Club et al, v. County of Fresno, et al
Supreme Court of California Case No.: S219783
Fifth District Court of Appeal Case No.: F066798
Fresno County Superior Court Case No.: 11CECG00726

PROOF OF SERVICE

I am over the age of 18 years and not a p[arty to the above-captioned action; that my business address is San Joaquin Valley Unified Air Pollution Control District located at 1990 E. Gettysburg Avenue, Fresno, California 93726.

On April 2, 2015, I served the document described below:

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO**

On all parties to this action at the following addresses and in the following manner:

PLEASE SEE ATTACHED SERVICE LIST

- (XX) **(BY MAIL)** I caused a true copy of each document(s) to be laced in a sealed envelope with first-class postage affixed and placed the envelope for collection. Mail is collected daily at my office and placed in a United State Postal Service collection box for pick-up and delivery that same day.
- () **(BY ELECTRONIC MAIL)** I caused a true and correct scanned image (.PDF file) copy to be transmitted via electronic mail transfer system in place at the San Joaquin Valley Unified Air Pollution Control District ("District"), originating from the undersigned at 1990 E. Gettysburg Avenue, Fresno, CA, to the address(es) indicated below.
- () **(BY OVERNIGHT MAIL)** I caused a true and correct copy to be delivered via Federal Express to the following person(s) or their representative at the address(es) listed below.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I executed this document on April 2, 2015, at Fresno, California.



Esthela Soto

SERVICE LIST

Sierra Club et al, v. County of Fresno, et al

Supreme Court of California Case No.: S219783

Fifth District Court of Appeal Case No.: F066798

Fresno County Superior Court Case No.: 11CECG00726

Sara Hedgpeth-Harris, Esq. LAW OFFICE OF SARA HEDGPETH-HARRIS 2125 Kern Street, Suite 301 Fresno, California 93721 Telephone: (559) 233-0907 Facsimile: (559) 272-6046 Email: sara.hedgpethharris@shh-law.com	Attorney for Plaintiffs and Appellants, Sierra Club, et al
Daniel C. Cederborg, Esq. Bruce B. Johnson, Jr., Esq. OFFICE OF THE FRESNO COUNTY COUNSEL 2220 Tulare Street, Suite 500 Fresno, California 93721 Telephone: (559) 600-3479 Facsimile: (559) 600-3480 Email: bjohnson@co.fresno.ca.us	Attorneys for Defendant and Respondent, County of Fresno
Bryan N. Wagner, Esq. WAGNER & WAGNER 7110 N. Fresno Street, Suite 340 Fresno, California 93720 Telephone: (559) 224-0871 Facsimile: (559) 224-0885 Email: bryan@wagnerandwagner.com	Attorneys for Real Party in Interest/Respondent Friant Ranch, L.P.
Clerk of the Court Superior Court of California County of Fresno 1130 'O' Street Fresno, California 93721 Telephone: (559) 457-1900	
Clerk of the Court Fifth District Court of Appeal 2424 Ventura Street Fresno, California 93721 Telephone: (559) 445-5491	

R. Tyson Sohagim, Esq. THE SOHAGI LAW GROUP 11999 San Vicente Blvd., Suite 150 Los Angeles, California 90049 Telephone: (310) 475-5700 Facsimile: (310) 475-5707 Email: tsohagi@sohagi.com	Attorney for Amici Curiae; League of California Cities, and the California State Association of Counties
Marcia L. Scully, Esq. General Counsel METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA Post Office Box 54153 Los Angeles, California 90054 Telephone: (213) 217-6115	Attorney for Amicus Curiae, The Metropolitan Water District of Southern CA
Amy Minter, Esq. CHATEN-BROWN & CARSTENS LLP 2200 Pacific Coast Highway, Suite 318 Hermosa Beach, California 90254 Telephone: (310) 798-2400 Facsimile: (310) 798-2402 Email: ACM@CBCEarthlaw.com	Attorney for Amici Curiae, Association of Irrigated Residents, Medical Advocates for Healthy Air, and Coalition for Clean Air
Shanda M. Beltran, Esq. General Counsel BUILDING INDUSTRY LEGAL DEFENSE FOUNDATION 17744 Sky Park Cr., Suite 170 Irvine, California 92614 Telephone: (949) 553-9500 Facsimile: (949) 769-8943 Email: sbeltran@biasec.org	Attorney for Amicus Curiae, Building Industry Legal Defense Foundation
Gene Talmadge, President CALIFORNIA ASSOCIATION OF ENVIRONMENTAL PROFESSIONALS 40747 Baranda Court Palm Desert, California 92260 Telephone: (760) 340-4499 Facsimile: (760) 674-2479	Attorney for Amicus Curiae, California Association of Environmental Professionals
Jennifer L. Hernandez, Esq. HOLLAND & KNIGHT LLP 50 California Street, Suite 2800 San Francisco, California 94111	On behalf of Amicus Curiae, CEQA Research Council

Telephone: (415) 743-6927 Facsimile: (415) 743-6910 Email: Jennifer.hernandez@hklaw.com	
---	--

TRAFFIC IMPACT ANALYSIS
FOR
BRONCO WINERY DISTRIBUTION CENTER
Stanislaus County

Prepared For:

Anderson-Litfin, Inc.
1385 Venture Lane
Turlock, CA 95380

Prepared By:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

November 23, 2016
Revised March 15, 2017

0480-01



KD Anderson & Associates, Inc.

Transportation Engineers

**TRAFFIC IMPACT ANALYSIS FOR
BRONCO WINERY DISTRIBUTION CENTER**
Stanislaus County

TABLE OF CONTENTS

INTRODUCTION.....	1
Project Description	1
General Study Methodology	2
EXISTING SETTING	5
Study Area	5
Standards of Significance: Capacity / Level of Service Analysis	11
PROJECT IMPACTS	15
Project Characteristics	15
Existing Plus Project Traffic Volumes and Levels of Service	19
Railroad Spur Line Operation.....	21
SUMMARY AND CONCLUSIONS	24
Project Description	24
Existing Traffic Conditions	24
Project Characteristics	25
Existing Plus Project Traffic Volumes and Levels of Service	26
Railroad Spur Line Operation.....	26
APPENDIX.....	28

KDA

**TRAFFIC IMPACT ANALYSIS FOR
BRONCO WINERY DISTRIBUTION CENTER**
Stanislaus County

INTRODUCTION

This report summarizes **KD Anderson & Associates** analysis of the traffic impacts associated with development of the proposed Bronco Winery Distribution Center. The project consists of development of additional warehouse and building space at the existing winery facility located south of Keyes Road and east of Bystrum Road. The project includes development of a rail spur connection to the existing U.P.R.R. line to permit shipment of product by rail. The existing U.P.R.R. line runs along the west border of the site adjacent to Bystrum Road. Warehouse space will be developed in phases over a number of years and will dependent on market conditions. Figures 1 displays the project location.

This study provides a focused analysis of traffic impacts in the immediate vicinity of the site associated with the expanded winery facilities. The scope of the analysis is based upon input from Stanislaus County following the County's initial review of the project application. The analysis focuses on impacts to the Keyes Road / Bystrum Road intersection immediately adjacent to the U.P.R.R. crossing of Keyes Road. The main access to the existing winery is located on Bystrum Road approximately 2,000 feet south of Keyes Road. A second project access is located on Keyes Road 3/4 of a mile east of Bystrum Road.

Traffic operations have been quantified relative to "in season" conditions which include trucking and employee operations associated with grape harvest and crush in addition to typical shipping and receiving winery operations. In season operations typically occur from mid July through mid November and include 24 hour facility operations, 7 days a week. Additionally, although the proposed winery expansion would be realized over a number of years, this study assumes build out of the proposed project to quantify resulting "Existing plus Project" traffic operating conditions.

Project Description

Build out of the entire project will include construction of eight warehouses totaling 629,500 sf, 4 office buildings totaling 101,000 sf and 2 assembly buildings totaling 12,600 sf immediately north of the company's existing winery facilities. The proposed Phase 1 portion of the project will consist of one 120,000 sf warehouse building and the railroad spur lines. The railroad spur lines will extend for approximately 1,400' immediately east of the existing U.P.R.R. line between Keyes Road and the project main access. The two existing access gates will continue to serve the expanded project site. Figure 2 displays the proposed site plan.

Project proponents expect that the project will not increase the capacity of the site for wine making. As a result, the project is not expected to see an increase in the number of trucks

bringing grapes to the site during Crush. However, the project involves creation of an appreciable amount of wine storage to accommodate wine produced on-site or to accommodate wine created or bottled elsewhere and trucked to this site for bottling and/or storage prior to eventual shipment. As such, the project would involve some additional employee trips to and from the site by automobile, as well as wine deliveries and shipments by truck and rail.

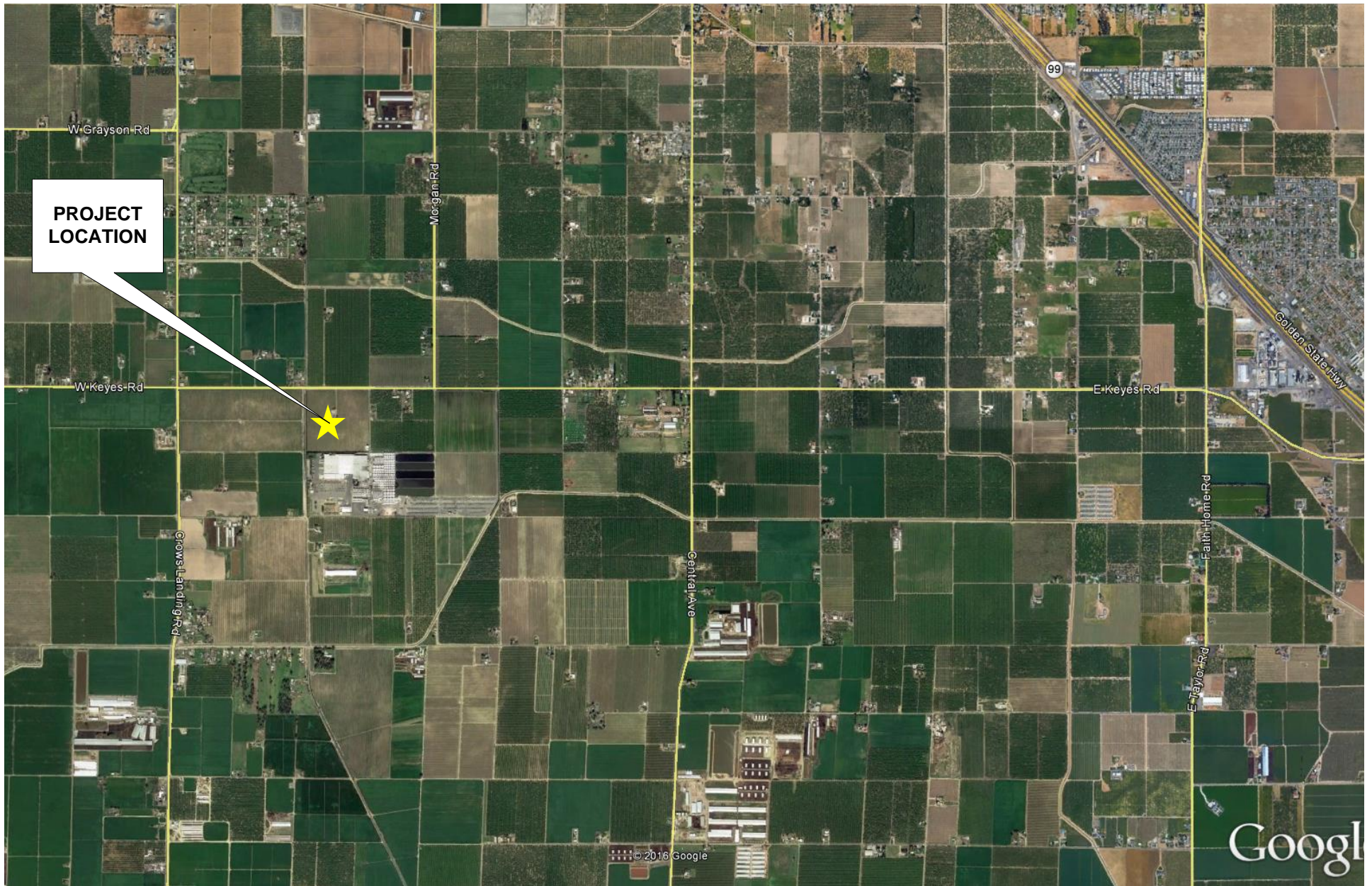
General Study Methodology

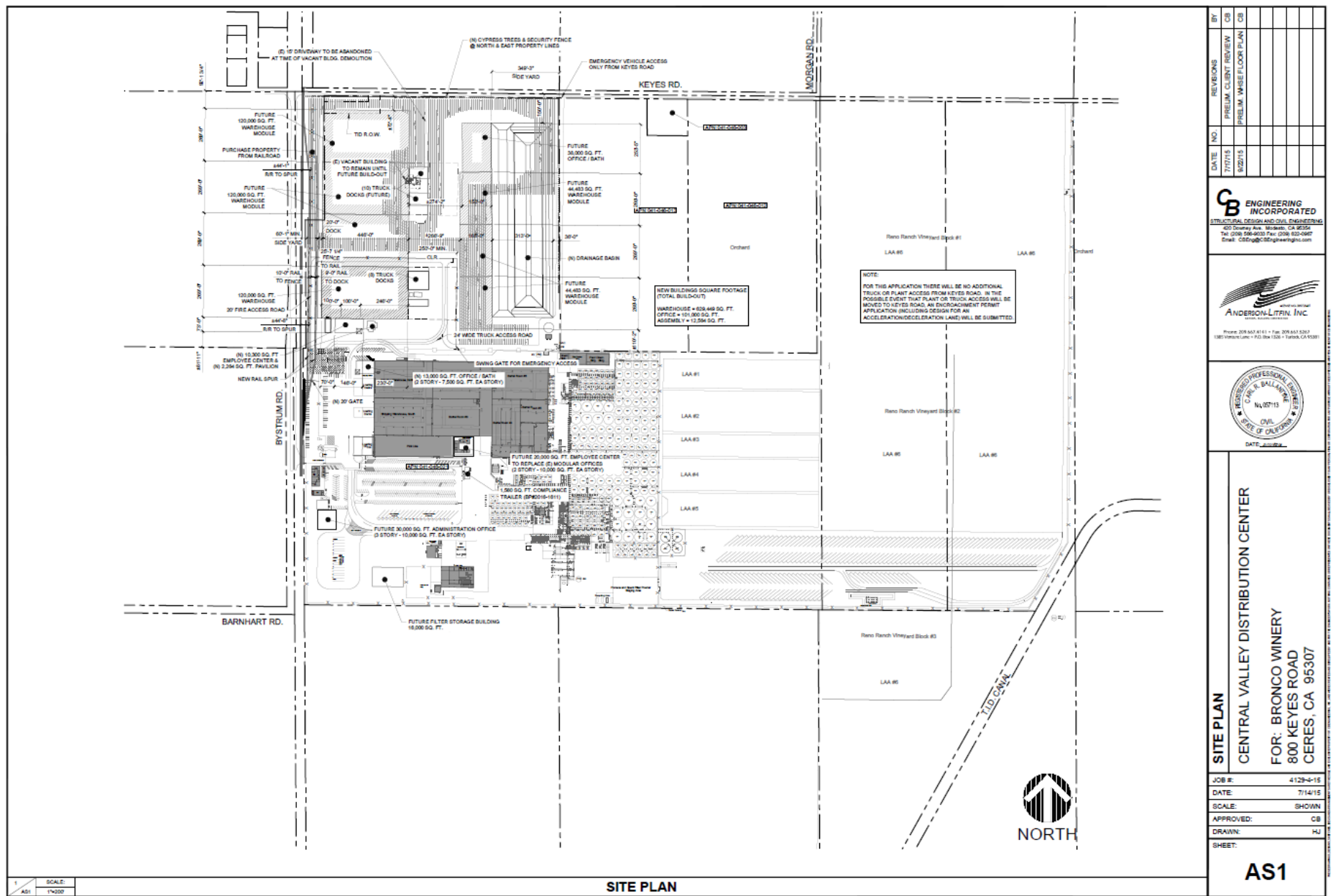
The methodology used to prepare this Traffic Impact Study follows an approach that is recognized by members of the traffic engineering profession, is consistent with CEQA guidelines and conforms to Stanislaus County guidelines for traffic impact studies.

The first phase of the study included the collection of traffic data and the analysis of that data to determine existing operating conditions. Peak hour and daily traffic counts were conducted in the vicinity of the project site. This data was used to calculate current operating Levels of Service using procedures accepted by Stanislaus County.

The second phase of the analysis involved identifying the number of trips expected to be generated by the proposed project. Traffic count data together with information on existing and proposed employee numbers and truck traffic numbers has been used to estimate trip generation quantities associated with the wine facility expansion.

Lastly, new trips associated with the proposed project were assigned to the study area street system to quantify Existing plus Project operating conditions. The analysis considers new automobile and truck traffic quantities as well as rail operations.





EXISTING SETTING

Study Area

The limits of this analysis were identified in consultation with Stanislaus County staff and include intersections and roadway segments in the vicinity of the project site as well as access to the site. The traffic impact analysis investigates the operational characteristics of the following intersections.

1. Keyes Road / Bystrum Road (Bystrum Rd stop sign controlled)
2. Keyes Road / Bronco Winery East Truck Access (East access stop sign controlled)

The locations of these intersections along with the existing road network are shown on Figure 3. The text that follows describes the characteristics of each facility.

Keyes Road is an east-west facility extending through the southerly portion of Stanislaus County. The roadway extends from Laird Road in the west past the east county line, a distance of approximately 27 miles. Interchange access to SR 99 is provided approximately 4 miles east of the project site. Keyes Road is a 2-lane rural roadway and classified as a Collector Road adjacent to the project site. The roadway provides 12' travel lanes and 1'-2' paved shoulders. No left turn channelization is provided at intersecting streets other than in the immediate vicinity of SR 99. Keyes Road has a 55 mph prima facie speed limit. The roadway currently carries approximately 6,650 daily vehicles adjacent to the project site, with 11% large truck traffic based upon classification counts conducted for this study.

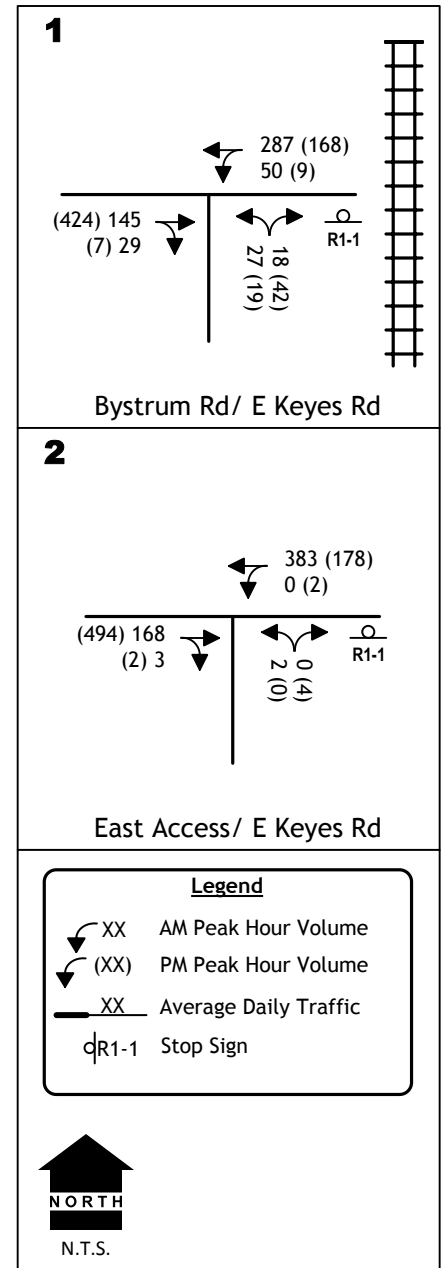
Bystrum Road is a local road on the west border of the project site which extends from Keyes Road south to Taylor Road. The roadway is paved for approximately 2,000' to the Bronco Winery entrance and then continues as a dirt/gravel facility to the south with a 1-lane bridge crossing of the canal immediately north of Taylor Road. Bystrum Road provides a connection to Barnhart Road at the southwest corner of the winery site and also provides access to other agricultural uses south of the winery site. North of the winery access, the roadway provides two travel lanes and 24' of pavement. Bystrum Road is stop sign controlled at Keyes Road. Traffic counts conducted for this analysis indicate the roadway carries approximately 1,480 daily vehicles north of the winery access.

Union Pacific Rail Line. A north-south U.P. rail line extends along the west border of the project site. This local line extends from Modesto in the north to Turlock in the south. The rail line crosses Keyes Road approximately 45' east of the centerline of Bystrum Road. The rail crossing has active traffic controls, consisting of crossing arms, warning lights and pavement delineation. Advance pavement delineation and signs are also provided on Keyes Road approximately 400' to the east and west. Pavement condition at the crossing is judged to be "good". There are no vehicle pull outs at the crossing. Adequate sight distance is provided to the arms and warning lights from eastbound and westbound Keyes Road. The crossing conforms to requirements presented in the CA MUTCD for active traffic control devices for grade crossings.

Existing Traffic Volumes. To determine existing traffic volumes and obtain more information about traffic conditions in the study area, information regarding daily, a.m. and p.m. peak hour traffic volumes was assembled. New weekday intersection and roadway counts were conducted on October 4, 2016. Intersection counts were performed from 7:00 - 9:00 a.m. and 4:00 - 6:00 p.m. at the two study intersections. Daily 24 hour roadway counts were also conducted on four roadway segments. These included:

- Keyes Road west of Bystrum Road
- Keyes Road east of the East Truck Access to Bronco Winery
- Bystrum Road south of Keyes Road
- East Truck Access road south of Keyes Road

All intersection and roadway counts were conducted in 15 minute increments and included separate truck classification counts. The peak hour intersection volumes and daily roadway volumes are shown in Figures 3 and 4. Figure 3 displays total traffic volumes, while Figure 4 displays truck traffic volumes. All traffic counts are included in the Appendix to this report. Table 1 summarizes hourly volumes on each of the roadways providing access to the project site to illustrate the distribution of traffic throughout the day. As shown, traffic volumes on each roadway are dispersed throughout the day and nighttime hours over the 24 hour period. This reflects the 24 hour operation and multiple employee shifts associated with the existing winery operations.



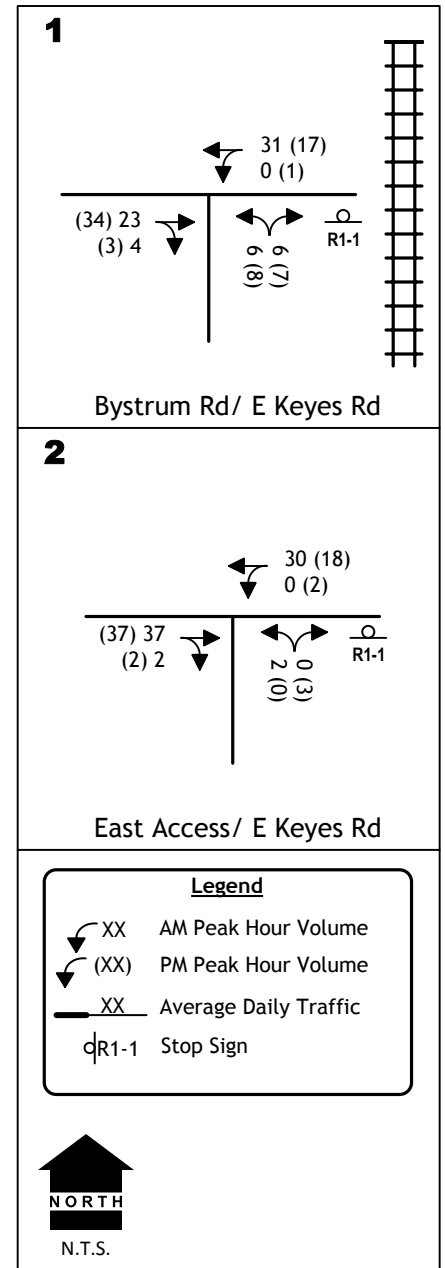


TABLE 1
HOURLY VOLUME SUMMARY
ON ACCESS ROADS SERVING PROJECT SITE

	Bystrum Road (Auto and Truck Access)		East Access Road (Truck Access)	
	Total Traffic	Percent of Daily Traffic	Truck Traffic	Percent of Daily Traffic
12-1 a.m.	26	1.7%	7	4.0%
1-2	9	0.6%	9	5.5%
2-3	19	1.3%	11	6.5%
3-4	22	1.5%	13	7.5%
4-5	32	2.1%	4	2.5%
5-6	86	5.8%	7	4.0%
6-7	111	7.5%	1	0.5%
7-8	110	7.5%	2	1.0%
8-9	87	5.9%	2	1.0%
9-10	44	3.0%	5	3.0%
10-11	55	3.7%	12	7.0%
11-12 p.m.	51	3.5%	11	6.5%
12-1	67	4.5%	2	1.0%
1-2	93	6.3%	13	7.5%
2-3	144	9.8%	12	7.0%
3-4	101	6.8%	3	1.5%
4-5	76	5.2%	3	1.5%
5-6	104	7.0%	7	4.0%
6-7	63	4.3%	8	4.5%
7-8	34	2.3%	4	2.5%
8-9	19	1.3%	5	3.0%
9-10	24	1.6%	10	6.0%
10-11	40	2.7%	11	6.5%
11-12	60	4.0%	7	4.0%
	1,477	100%	169	100%

Information has been assembled by the project proponents to quantify the average number of existing truck trips generated by the site for "in season" operating conditions. This is as presented in "Exhibit A" of the initial project application to the County. This information has been compared to traffic counts conducted by the consultant on 10/4/16 to establish an in season baseline traffic condition for purposes of evaluating project impacts. Table 2 summarizes the average number of in season truck trips generated by the winery site. This information is summarized by the type of distribution truck. As shown, five categories of truck traffic have been identified with an average of 183 trucks per day. These trucks in turn generate an average of 366 truck trips per day.

Table 3 provides a comparison of this average daily truck information verse that observed by the consultant on 10/4/16. As shown, a slightly lower number of trucks was generated by the site on that day when roadway and intersection counts were conducted for this analysis. The site was observed to generate 347 truck trips over a 24 hour period, or 5% less than the volume discussed above. Total truck traffic generated by the site has therefore been increased to reflect average in season conditions for purposes of this analysis.

TABLE 2
BRONCO WINERY AVERAGE DAILY TRUCK TRAFFIC VOLUMES
EXISTING CONDITIONS (IN SEASON)

Distribution Type	Existing Baseline Conditions			
	Number Trucks	Average Daily Trips		
		In	Out	Total
Shipping Trucks	14	14	14	28
Tanker Trucks	34	34	34	68
Grape Trucks ⁽¹⁾	105	105	105	210
Pomace Trucks ⁽¹⁾	23	23	23	46
Delivery Trucks	7	7	7	14
	183			366

⁽¹⁾ Grape and Pomace trucks only operate in season during grape harvest and crush.

TABLE 3
BRONCO WINERY SITE DAILY TRUCK VOLUME COMPARISON

10/4/16 Traffic Counts			Estimated Average Daily Trucks, Baseline Condition throughout Season		
In	Out	Total	In	Out	Total
173	174	347	183	183	366

Total trucks counted on 10/4/16 was 5% lower than estimated average daily trucks throughout the season.

Existing Train Volumes. Observations conducted on Tuesday, 10/04/16, indicated one southbound and one northbound train crossing during this 24 hour period. The duration of these train crossings (railroad arms down) were 40 seconds and 54 seconds, respectively. Table 4 summarizes this information.

TABLE 4
24 HOUR TRAIN VOLUME AT KEYES ROAD CROSSING (10/04/2016)

No.	Direction	Gates Down		Duration
		Start	End	
1	Southbound	8:02:48	8:03:28	40 sec
2	Northbound	10:16:01	10:16:55	54 sec

Standards of Significance: Capacity / Level of Service Analysis

Level of Service. The quality of traffic flow through intersections and on individual roadway segments is described in terms of operating Level of Service. "Level of Service (LOS)" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. Tables 5 presents the characteristics associated with each LOS grade.

The *Highway Capacity Manual* presents methodologies for calculating practical capacity and Level of Service at intersections. At signalized intersections and intersections controlled by all-way stop signs, traffic conditions are described in terms of the average length of the delays experienced by all motorists. Intersection configuration, traffic volumes and traffic signal timing are all factors that enter into determination of the length of average delay and the resulting Level of Service. The delays experienced at intersection controlled by side street stop signs are different. Motorists waiting to turn must yield the right of way to through traffic, and the length of delays can vary on each approach to the intersection. For this analysis the length of delays experienced by motorists on each approach has been calculated. Intersection operations have been quantified based upon Highway Capacity Manual procedures, consistent with Stanislaus County requirements.

TABLE 5
LEVEL OF SERVICE DEFINITION

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Longer traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: <u>Highway Capacity Manual</u> .			

Significance Thresholds. A traffic impact is considered significant if it renders an unacceptable Level of Service on a street segment or at an intersection, or if it worsens already unacceptable conditions. Local jurisdictions typically adopt minimum Level of Service standards for use in traffic studies and environmental impact reports.

The Stanislaus County General Plan Circulation Element indicates that the County shall maintain LOS "D" or better for all County roadways and intersections, except within the sphere of influence of a city that has adopted a lower level of service standard, the City standard shall apply. As such, the LOS "D" standard has been used for this analysis to quantify the significance of traffic impacts at intersections.

Signal Warrant Criteria. At intersections controlled by side street stop signs, a supplemental signal warrant analysis is also typically used in determining the adequacy of operations and/or the need for improvements. As minor street traffic can experience significant delays when accessing a major street, side street delays at any single approach are typically not considered significant

unless side street volumes are large enough to meet peak hour warrants for installation of a traffic signal. Peak hour traffic signal warrants as presented in the California Manual of Uniform Traffic Control Devices (MUTCD) have been used for this analysis.

Criteria for Determining the Need for Left Turn Channelization. Lastly, as the subject intersections on Keyes Road do not provide left turn lane channelization, guidelines for the installation of left turn lanes have been reviewed for this analysis. The American Association of State Highway Transportation Officials (AASHTO) has identified guidelines for the installation of left turn lanes in their publication *A Policy on Geometric Design of Highways and Streets*. These guidelines, which are presented in their Table 9-23 of the publication and summarized below in Table 6, base the need for a left turn lane on the volume of traffic on the mainline road and the relative percentage of that traffic which turns left.

**TABLE 6
TRAFFIC VOLUMES JUSTIFYING LEFT TURN LANES**

Opposing Volume (veh/hr)	Advancing Volume (veh/hr)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40-mph operating speed				
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
50-mph operating speed				
800	280	210	165	135
600	350	260	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
60-mph operating speed				
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240
Source: <i>A Policy on Geometric Design of Highway and Streets</i> , AASHTO, 2012.				

Existing Intersection Operation / Levels of Service. Existing study area intersection operations are summarized in Table 7. As shown, study area intersections currently operate within acceptable standards. Satisfactory level of service “A” to “C” operations are currently experienced at each of the study intersections in the a.m. and p.m. peak traffic hours. These calculations consider the peak hour percentage of truck traffic at each approach to the intersections.

Existing peak hour volumes at the side street stop sign controlled study intersections do not warrant installation of a traffic signal. Existing side street volumes are below the minimum volume threshold required to meet the peak hour signal warrant.

The a.m. peak hour volumes at the Keyes Road / Bystrum Road intersection meet the AASHTO guideline criteria for consideration of left turn channelization. However, this threshold is only met for the one morning hour and review of hourly roadway volumes throughout the balance of the day indicates that these threshold volumes would not be met during any other hours of the day.

**TABLE 7
EXISTING INTERSECTION LEVELS OF SERVICE**

Location	Control	AM Peak Hour		PM Peak Hour	
		LOS	Average Delay	LOS	Average Delay
Keyes Road / Bystrum Road	NB Stop				
NB Approach		B	12.6	B	13.5
WB Approach		A	1.5	A	0.5
Keyes Road / East Access Road	NB Stop				
NB Approach		C	15.7	B	14.2
WB Approach		A	0.0	A	0.2

PROJECT IMPACTS

To evaluate the impacts of the proposed project on traffic conditions in the study area it is necessary to identify the volume of traffic expected to be generated by the proposed facility and to superimpose this traffic onto current background traffic conditions.

Project Characteristics

Project Employee Traffic. The winery operation currently has 486 in season employees, 389 of which are employed in wholesale / production and operate under three shifts. Build out of the proposed facility expansion is projected to result in modest employee increases, with total employees increasing to 516 persons, an increase of 30 employees or 6%. As occurs today, employees will access the facility via the Bystrum Road entrance.

To quantify this employee increase in terms of traffic volumes, automobile traffic at the Bystrum Road / Keyes Road intersection associated with the existing winery operations has been increased by this same 6%. Inbound and outbound patterns, as well as the directional distribution of employee trips has been assumed to be the same as existing employee traffic. Table 8 displays this employee trip generation information. Existing employee traffic volumes are based upon gate counts at the winery main access. As shown in Table 8, an additional 60 daily employee trips are projected to be generated by the site with the proposed project. Figure 5 displays peak hour and daily employee generated traffic volumes projected to be added to the study street system.

Project Truck Traffic. The proposed project will generate additional truck traffic. In season truck traffic generated by the site consists of shipping trucks, tanker trucks, grape trucks, pomace trucks and various delivery trucks. This is as previously presented in Table 2. Shipping, tanker, pomace and delivery trucks utilize the Bystrum Road main access, while grape trucks utilize the easterly access during the season. Build out of the project is projected to result in an increase in shipping truck traffic, while other truck traffic is projected to remain at existing levels. An additional 25 shipping trucks are projected to exit and enter the site with build out of the proposed expansion project. The additional truck traffic is expected to have similar travel patterns to existing truck traffic generated by the site, with regards to both the distribution of traffic to Keyes Road as well as arrival and departure times to and from the site. Truck traffic volumes are summarized in Table 9. As shown, an additional 50 daily truck trips are projected to be generated by the site with the proposed project. Figure 6 displays peak hour and daily truck traffic volumes projected to be added to the study street system with the proposed project.

**TABLE 8
EXISTING PLUS PROJECT
EMPLOYEE TRIP GENERATION (IN SEASON)**

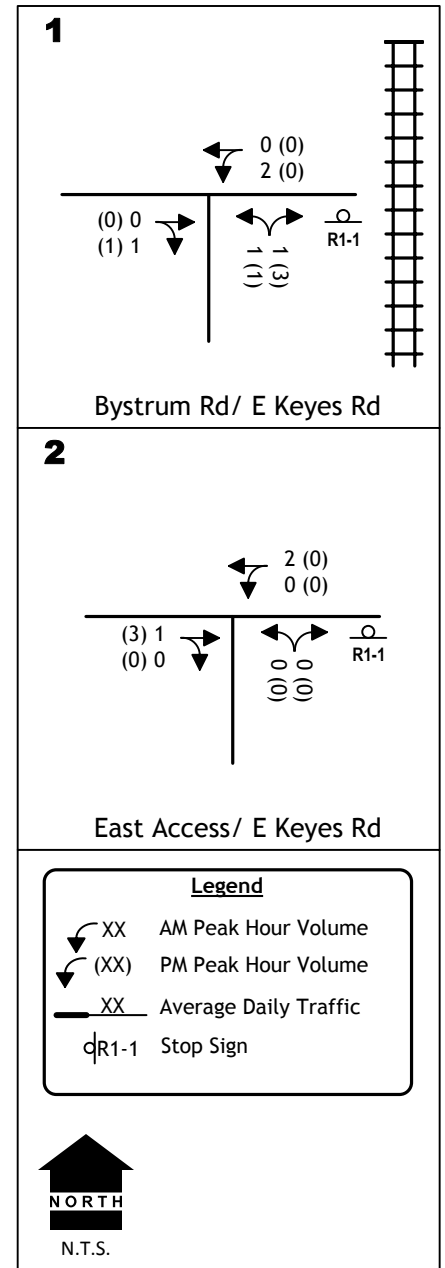
Existing Conditions				Existing Plus Project Buildout				Net Increase			
Number of Employees (3 shifts)	Daily Employee Trips ⁽¹⁾			Number of Employees (3 shifts)	Daily Employee Trips			Number of Employees			
	In	Out	Total		In	Out	Total				
486	427	549	976	516	453	583	1,036	30	26	34	60

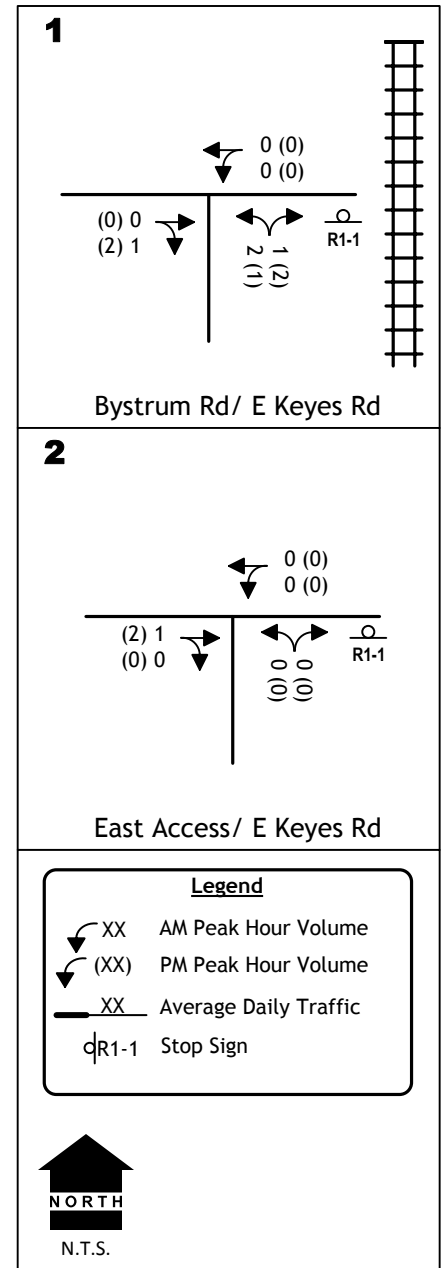
⁽¹⁾ Employee Trip Gate Count, 10/4/16.

**TABLE 9
EXISTING PLUS PROJECT TRIP GENERATION
BRONCO WINERY AVERAGE DAILY TRUCK TRAFFIC VOLUMES (IN SEASON)**

Distribution Type	Existing Baseline Conditions				With Project Buildout				Net Increase Total Trips
	Number Trucks	Daily Trips			Number Trucks	Daily Trips			
		In	Out	Total		In	Out	Total	
Shipping Trucks	14	14	14	28	39	39	39	78	50
Tanker Trucks	34	34	34	68	34	34	34	68	0
Grape Trucks ⁽¹⁾	105	105	105	210	105	105	105	210	0
Pomace Trucks ⁽¹⁾	23	23	23	46	23	23	23	46	0
Delivery Trucks	7	7	7	14	7	7	7	14	0
	183			366	208			416	50

⁽¹⁾ Grape and Pomace trucks only operate in season during grape harvest and crush.





Rail Car Traffic. Construction of the proposed railroad spur lines will permit shipping of product via rail. Rail car volume is projected at five cars per day, four days a week, resulting in one train trip to and from the site four days a week. Rail cars will be delivered and picked up as part of the existing train schedule serving this rail route. This is summarized in Table 10.

**TABLE 10
PROPOSED RAIL SERVICES**

Number of Trains serving site per day	1
Number of Rail Cars per Train	5
Projected Train Service days per week	4

Existing Plus Project Traffic Volumes and Levels of Service

Figure 7 displays resulting “Existing Plus Project” traffic volumes with project traffic added to existing background baseline traffic volumes. Projected intersection Levels of Service are presented in Table 11.

As shown in Table 11, traffic generated by build out of the proposed winery expansion project will have a very minor effect on current intersection operations. No changes to current operating levels of service are projected and any increases in delay are projected to be very minor. Satisfactory operating levels of service are projected to continue. The minor increases in peak hour traffic will not warrant signalization of the study intersections. Similarly, project traffic will not measurably effect the need for left turn channelization at the Keyes Road / Bystrum Road intersection. As such, while no significant project impacts have been identified, to respond to existing concerns the Keyes Road / Bystrum Road intersection will be improved as part of the proposed project.

**TABLE 11
INTERSECTION LEVELS OF SERVICE
EXISTING PLUS PROJECT BUILD OUT**

Intersection		Existing				Existing Plus Project				Net Changes/Increase			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Location	Control	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Keyes Rd / Bystrum Rd	NB												
NB Approach	Stop	B	12.6	B	13.5	B	12.8	B	13.7	-	0.2	-	0.2
WB Approach		A	1.5	A	0.5	A	1.5	A	0.5	-	0.0	-	0.0
Keyes Rd / East Access Rd	NB												
NB Approach	Stop	C	15.7	B	14.2	C	15.7	B	14.2	-	0.0	-	0.0
WB Approach		A	0.0	A	0.2	A	0.0	A	0.2	-	0.0	-	0.0
LOS = Level of Service													
Delay = Average Delay in seconds													



EXISTING BASELINE PLUS PROJECT BUILDOUT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

0480-01 RA 11/16/2016

figure 7

Railroad Spur Line Operation

The proposed railroad spur line will be located immediately east of the existing U.P.R.R. line along the west border of the site and will extend for approximately 1,400' between Keyes Road and the winery main entrance to the south. Figure 8 displays the proposed design. Two parallel spur lines will be constructed to facilitate train car pick-up and drop off and to minimize potential delays to traffic on Keyes Road. Projected operations are as follows: 1) The train will originate from the north and pass the southerly spur switch, 2) Train will back into the easterly spur to pick up loaded cars and transfer them to the westerly spur, 3) Train then moves back to the easterly spur to drop off empty cars, 4) Train proceeds south to Turlock where it turns around and then proceeds north picking up loaded cars along the service route, 5) At the winery, the train will back into the westerly spur line at the northerly spur switch to pick up loaded cars, then proceeds north.

With respect to current train activity, the addition of the winery spur lines will not significantly increase delays to Keyes Road for the southbound train trip. The train crossing duration may increase somewhat, as the train will be slowing in order to stop and back-up into the southerly spur line switch south of Keyes Road. As previously discussed, this existing southbound crossing time was observed to be 40 seconds and this would be expected to increase somewhat due to the train slowing as it crosses Keyes Road.

The northbound trip for picking up loaded cars will require the train to stop just north of Keyes Road and then back into the westerly spur line at the northerly spur switch, pick up loaded cars, and then proceed north. The time to cross Keyes Road and perform this maneuver is estimated at four (4) to eight (8) minutes by U.P.R.R. personnel. As previously discussed, the current northbound train crossing duration was observed at 54 seconds, and this resulted in observed vehicle queues at the crossing on eastbound and westbound Keyes Road of two (2) vehicles and four (4) vehicles, respectively. Extrapolating this information out for the additional three minutes of delay associated with the shorter duration estimate, it would be expected that vehicle queues of 8 vehicles and 16 vehicles would form on eastbound and westbound Keyes Road, respectively. For the longer eight minute duration estimate, vehicle queues of 16 and 32 vehicles would be expected on eastbound and westbound Keyes Road. This information is summarized in Table 12. Following departure of the train, it is estimated that a 32 vehicle queue would require another 70 seconds to disperse.

Observations of the northbound train crossing indicated that the northbound crossing occurred at 10:15 a.m. and that this is roughly typical of the train schedule serving the area. Vehicle queue estimates identified above assume a similar train crossing schedule, with northbound trains crossing Keyes Road during the late morning hours.

The sensitivity of the train schedule on vehicle queue estimates for Keyes Road has been evaluated based upon hourly counts conducted for the roadway. Review of 24 hour traffic counts indicates volumes on westbound Keyes Road are fairly consistent for the hours from 10:00 a.m. to about 1:00 p.m. As such, a train picking up product from the winery during this three hour period would be expected to cause vehicle queues on westbound Keyes Road as discussed above.

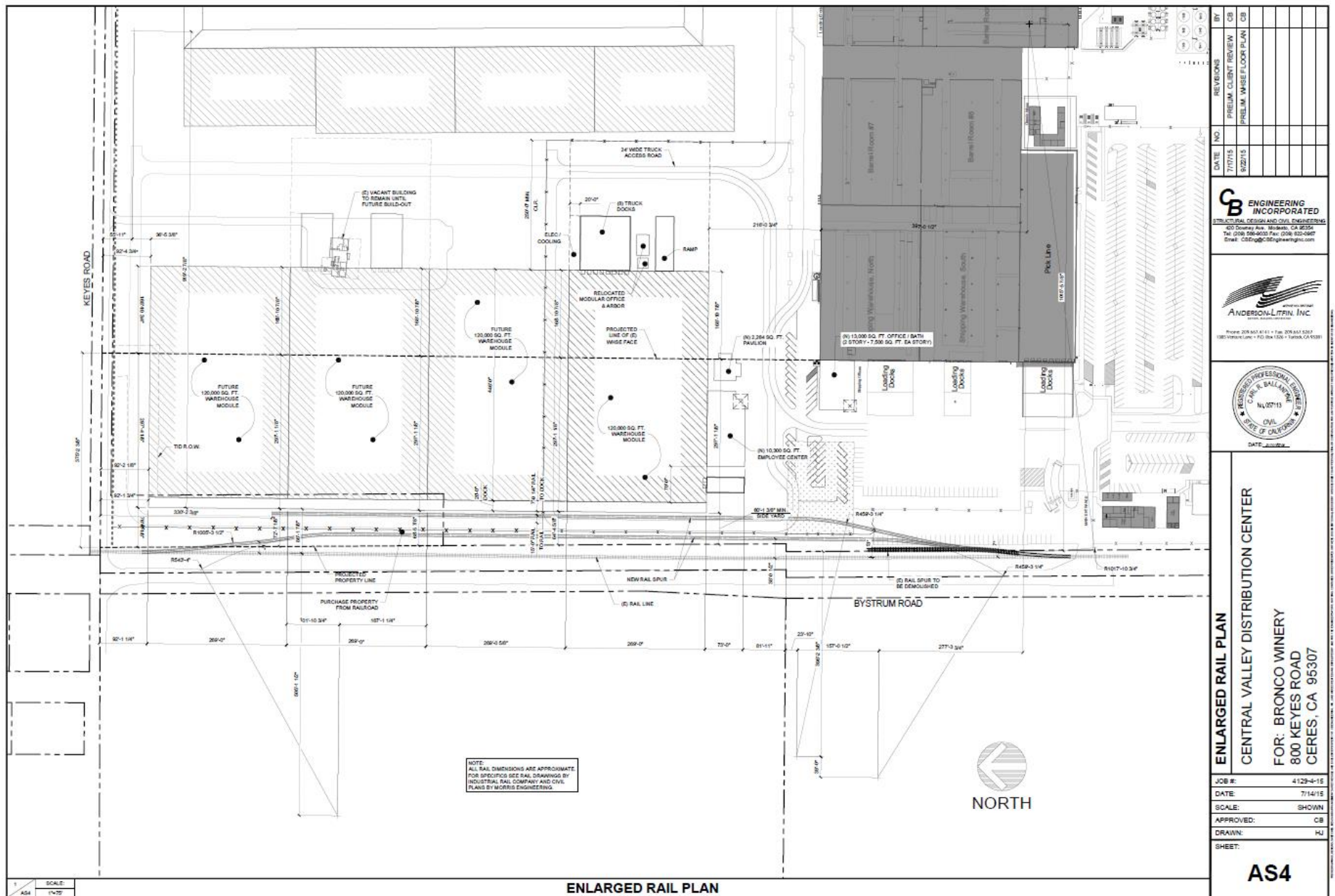
Conversely, traffic on eastbound Keyes Road is lower in the morning and steadily increases over these hours, surpassing the westbound flow rate after about 1:00 p.m. Therefore, the 8 to 16 vehicle eastbound queue estimated for the 10:00 hour would be expected to increase and reach 16 to 32 vehicles by 1:00 p.m., similar to the westbound direction.

As noted in the project application, the statement has been made that *the train engineers will be as courteous as possible, by pulling clear of Keyes Road throughout this process if any large backups are seen.* Should this occur, it is likely that the loaded car pickup could be accomplished in two steps, with the northbound train first clearing Keyes Road and permitting traffic to clear, then followed by backing across Keyes Road to secure the loaded cars and then proceeding north.

TABLE 12
PROJECTED VEHICLE QUEUES AT KEYES ROAD TRAIN CROSSING

Direction	Vehicle Queue (# cars)		
	Existing Conditions 10/4/16 observation NB Train	With Proposed Project, Product Pick-up, NB Train	
		4 Minute Duration	8 Minute Duration
Eastbound Keyes Road	2	8	16
Westbound Keyes Road	4	16	32

Rail Car Equivalent Truck Traffic. As previously discussed, the proposed project includes shipping of product both by truck and rail car. Rail shipments are estimated at five (5) cars per day, 4 days per week. The equivalent truck traffic volume is discussed here, should rail shipments not be available. Information provided by the applicant indicates that the shipping capacity of one rail car is equivalent to three (3) trucks. As such, five rail cars per day would be the equivalent of 15 trucks, or 30 truck trips per day to and from the site. As presented in this analysis, with the inclusion of rail service, the proposed project is expected to result in an additional 25 trucks serving the site or 50 daily truck trips generated by the site. Therefore, in the absence of rail service, the additional truck traffic would increase by approximately 60%. Associated traffic impacts would be expected to be proportionately less than that identified for the proposed project. As the traffic impacts associated with the proposed project have been projected to be relatively minor, this additional truck traffic would not be expected to have a significant impact.



SUMMARY AND CONCLUSIONS

This report summarizes analysis of the traffic impacts associated with development of the proposed Bronco Winery Distribution Center. The project consists of development of additional warehouse and building space at the existing winery facility located south of Keyes Road and east of Bystrum Road. The project includes development of a rail spur connection to permit shipment of product by rail as well as by truck. The analysis focuses on impacts to the Keyes Road / Bystrum Road intersection immediately adjacent to the U.P.R.R. crossing of Keyes Road. The main access to the existing winery is located on Bystrum Road approximately 2,000 feet south of Keyes Road. A second project access is located on Keyes Road 3/4 of a mile east of Bystrum Road.

Traffic operations have been quantified relative to "in season" conditions which include trucking and employee operations associated with grape harvest and crush in addition to typical shipping and receiving winery operations. Additionally, although the proposed winery expansion would be realized over a number of years, this study assumes build out of the proposed project to quantify resulting "Existing plus Project" traffic operating conditions.

Project Description

Build out of the entire project will include construction of eight warehouses totaling 629,500 sf, 4 office buildings totaling 101,000 sf and 2 assembly buildings totaling 12,600 sf immediately north of the company's existing winery facilities. The proposed Phase 1 portion of the project will consist of one 120,000 sf warehouse building and the railroad spur lines. The railroad spur lines will extend for approximately 1,400' immediately east of the existing U.P.R.R. line between Keyes Road and the project main access. The two existing access gates will continue to serve the expanded project site.

Project proponents expect that the project will not increase the capacity of the site for wine making. As a result, the project is not expected to see an increase in the number of trucks bringing grapes to the site during Crush. However, the project involves creation of an appreciable amount of wine storage to accommodate wine produced on-site or to accommodate wine created or bottled elsewhere and trucked to this site for bottling and/or storage prior to eventual shipment. As such, the project would involve some additional employee trips to and from the site by automobile, as well as wine deliveries and shipments by truck and rail.

Existing Traffic Conditions

To determine existing traffic volumes and obtain more information about traffic conditions in the study area, information regarding daily, a.m. and p.m. peak hour traffic volumes was assembled. New weekday intersection and roadway counts were conducted on October 4, 2016. Intersection counts were performed from 7:00 - 9:00 a.m. and 4:00 - 6:00 p.m. at the two study intersections. Daily 24 hour roadway counts were also conducted on four roadway segments. These included:

- Keyes Road west of Bystrum Road
- Keyes Road east of the East Truck Access to Bronco Winery
- Bystrum Road south of Keyes Road
- East Truck Access road south of Keyes Road

All intersection and roadway counts were conducted in 15 minute increments and included separate truck classification counts.

The study area intersections currently operate within acceptable standards. Satisfactory level of service “A” to “C” operations are currently experienced at each of the study intersections in the a.m. and p.m. peak traffic hours. These calculations consider the peak hour percentage of truck traffic at each approach to the intersections.

Existing peak hour volumes at the side street stop sign controlled study intersections do not warrant installation of a traffic signal. Existing side street volumes are below the minimum volume threshold required to meet the peak hour signal warrant. The a.m. peak hour volumes at the Keyes Road / Bystrum Road intersection meet the AASHTO guideline criteria for consideration of left turn channelization. However, this threshold is only met for the one morning hour and review of hourly roadway volumes throughout the balance of the day indicates that these threshold volumes would not be met during any other hours of the day.

Project Characteristics

Project Employee Traffic. The winery operation currently has 486 in season employees, 389 of which are employed in wholesale / production and operate under three shifts. Build out of the proposed facility expansion is projected to result in modest employee increases, with total employees increasing to 516 persons, an increase of 30 employees or 6%. As occurs today, employees will access the facility via the Bystrum Road entrance.

To quantify this employee increase in terms of traffic volumes, automobile traffic at the Bystrum Road / Keyes Road intersection associated with the existing winery operations has been increased by this same 6%. Inbound and outbound patterns, as well as the directional distribution of employee trips has been assumed to be the same as existing employee traffic. Table 8 displays this employee trip generation information. Existing employee traffic volumes are based upon gate counts at the winery main access. An additional 60 daily employee trips are projected to be generated by the site with the proposed project.

Project Truck Traffic. The proposed project will generate additional truck traffic. In season truck traffic generated by the site consists of shipping trucks, tanker trucks, grape trucks, pomace trucks and various delivery trucks. Shipping, tanker, pomace and delivery trucks utilize the Bystrum Road main access, while grape trucks utilize the easterly access during the season. Development of the project is projected to result in an increase in shipping truck traffic, while other truck traffic is projected to remain at existing levels. An additional 25 shipping trucks are projected to exit and enter the site with build out of the proposed expansion project. The

additional truck traffic is expected to have similar travel patterns to existing truck traffic generated by the site, with regards to both the distribution of traffic to Keyes Road as well as arrival and departure times to and from the site. An additional 50 daily truck trips are projected to be generated by the site with the proposed project.

Rail Car Traffic. Construction of the proposed railroad spur lines will permit shipping of product via rail. Rail car volume is projected at five cars per day, four days a week, resulting in one train trip to and from the site four days a week. Rail cars will be delivered and picked up as part of the existing train schedule serving this rail route.

Existing Plus Project Traffic Volumes and Levels of Service

Traffic generated by build out of the proposed winery expansion project will have a very minor effect on current intersection operations. No changes to current operating levels of service are projected and any increases in delay are projected to be very minor. Satisfactory operating levels of service are projected to continue. The minor increases in peak hour traffic will not warrant signalization of the study intersections. While project traffic will not measurably effect the need for left turn channelization at the Keyes Road / Bystrum Road intersection, to address current concerns the intersection will be improved as part of the project. This considers build out of the expansion project. As previously noted, the initial Phase 1 project consists of one 120,000 sf warehouse building.

Railroad Spur Line Operation

The proposed railroad spur line will be located immediately east of the existing U.P.R.R. line along the west border of the site and will extend for approximately 1,400' between Keyes Road and the winery main entrance to the south. Two parallel spur lines will be constructed to facilitate train car pick-up and drop off and to minimize potential delays to traffic on Keyes Road. Projected operations are as follows: 1) The train will originate from the north and pass the southerly spur switch, 2) Train will back into the easterly spur to pick up loaded cars and transfer them to the westerly spur, 3) Train then moves back to the easterly spur to drop off empty cars, 4) Train proceeds south to Turlock where it turns around and then proceeds north picking up loaded cars along the service route, 5) At the winery, the train will back into the westerly spur line at the northerly spur switch to pick up loaded cars, then proceeds north.

With respect to current train activity, the addition of the winery spur lines will not significantly increase delays to Keyes Road for the southbound train trip. The train crossing duration may increase somewhat, as the train will be slowing in order to stop and back-up into the southerly spur line switch south of Keyes Road. As previously discussed, this existing southbound crossing time was observed to be 40 seconds and this would be expected to increase somewhat due to the train slowing as it crosses Keyes Road.

The northbound trip for picking up loaded cars will require the train to stop just north of Keyes Road and then back into the westerly spur line at the northerly spur switch, pick up loaded cars, and then proceed north. The time to cross Keyes Road and perform this maneuver is estimated at four (4) to eight (8) minutes by U.P.R.R. personnel. The current northbound train crossing

duration was observed at 54 seconds, and this resulted in observed vehicle queues at the crossing on eastbound and westbound Keyes Road of two (2) vehicles and four (4) vehicles, respectively. Extrapolating this information out for the additional three minutes of delay associated with the shorter duration estimate, it would be expected that vehicle queues of 8 vehicles and 16 vehicles would form on eastbound and westbound Keyes Road, respectively. For the longer eight minute duration estimate, vehicle queues of 16 and 32 vehicles would be expected on eastbound and westbound Keyes Road. Following departure of the train, it is estimated that a 32 vehicle queue would require another 70 seconds to disperse.

As noted in the project application, the statement has been made that *the train engineers will be as courteous as possible, by pulling clear of Keyes Road throughout this process if any large backups are seen.* Should this occur, it is likely that the loaded car pickup could be accomplished in two steps, with the northbound train first clearing Keyes Road and permitting traffic to clear, then followed by backing across Keyes Road to secure the loaded cars and then proceeding north.

APPENDIX

EXISTING LEVEL OF SERVICE

EXISTING PLUS PROJECT LEVELS OF SERVICE

TRAFFIC COUNTS

HCM Unsignalized Intersection Capacity Analysis

3: Keyes Rd & Bystrum

Ex AM
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	145	29	50	287	27	18
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	156	31	54	309	29	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			187		588	172
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			187		588	172
tC, single (s)			4.1		6.6	6.5
tC, 2 stage (s)						
tF (s)			2.2		3.7	3.6
p0 queue free %			96		93	98
cM capacity (veh/h)			1387		423	798
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	187	362	48			
Volume Left	0	54	29			
Volume Right	31	0	19			
cSH	1700	1387	521			
Volume to Capacity	0.11	0.04	0.09			
Queue Length 95th (ft)	0	3	8			
Control Delay (s)	0.0	1.5	12.6			
Lane LOS		A	B			
Approach Delay (s)	0.0	1.5	12.6			
Approach LOS			B			
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			40.6%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Keyes Rd & East Access

Ex AM
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	168	3	0	383	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	181	3	0	412	2	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			184		594	182
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			184		594	182
tC, single (s)			5.1		7.4	7.2
tC, 2 stage (s)						
tF (s)			3.1		4.4	4.2
p0 queue free %			100		99	100
cM capacity (veh/h)			968		339	661
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	184	412	2			
Volume Left	0	0	2			
Volume Right	3	0	0			
cSH	1700	968	339			
Volume to Capacity	0.11	0.00	0.01			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	15.7			
Lane LOS			C			
Approach Delay (s)	0.0	0.0	15.7			
Approach LOS			C			
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			30.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis











3: Keyes Rd & Bystrum

Ex PM
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↘	↗
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	424	7	9	168	19	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	456	8	10	181	20	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			463		660	460
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			463		660	460
tC, single (s)			4.2		6.8	6.4
tC, 2 stage (s)						
tF (s)			2.3		3.9	3.5
p0 queue free %			99		94	92
cM capacity (veh/h)			1052		368	572
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	463	190	66			
Volume Left	0	10	20			
Volume Right	8	0	45			
cSH	1700	1052	488			
Volume to Capacity	0.27	0.01	0.13			
Queue Length 95th (ft)	0	1	12			
Control Delay (s)	0.0	0.5	13.5			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	13.5			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			33.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 5: Keyes Rd & East Access

Ex PM
11/4/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	494	2	2	178	0	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	531	2	2	191	0	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			533		728	532
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			533		728	532
tC, single (s)			5.1		7.4	7.2
tC, 2 stage (s)						
tF (s)			3.1		4.4	4.2
p0 queue free %			100		100	99
cM capacity (veh/h)			680		276	397
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	533	194	4			
Volume Left	0	2	0			
Volume Right	2	0	4			
cSH	1700	680	397			
Volume to Capacity	0.31	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.2	14.2			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.2	14.2			
Approach LOS			B			
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization		36.1%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Keyes Rd & Bystrum

Ex AM + Project buildout
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	145	31	52	287	30	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	156	33	56	309	32	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			189		593	173
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			189		593	173
tC, single (s)			4.1		6.6	6.5
tC, 2 stage (s)						
tF (s)			2.2		3.7	3.6
p0 queue free %			96		92	97
cM capacity (veh/h)			1385		419	797
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	189	365	54			
Volume Left	0	56	32			
Volume Right	33	0	22			
cSH	1700	1385	517			
Volume to Capacity	0.11	0.04	0.10			
Queue Length 95th (ft)	0	3	9			
Control Delay (s)	0.0	1.5	12.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	1.5	12.8			
Approach LOS			B			
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			40.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: Keyes Rd & East Access

Ex AM + Project buildout
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↰	↰	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	170	3	0	385	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	183	3	0	414	2	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			186		598	184
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			186		598	184
tC, single (s)			5.1		7.4	7.2
tC, 2 stage (s)						
tF (s)			3.1		4.4	4.2
p0 queue free %			100		99	100
cM capacity (veh/h)			966		337	659
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	186	414	2			
Volume Left	0	0	2			
Volume Right	3	0	0			
cSH	1700	966	337			
Volume to Capacity	0.11	0.00	0.01			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	15.7			
Lane LOS			C			
Approach Delay (s)	0.0	0.0	15.7			
Approach LOS			C			
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			30.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Keyes Rd & Bystrum

Ex PM + Project buildout
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	424	10	9	168	21	47
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	456	11	10	181	23	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			467		661	461
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			467		661	461
tC, single (s)			4.2		6.8	6.4
tC, 2 stage (s)						
tF (s)			2.3		3.9	3.5
p0 queue free %			99		94	91
cM capacity (veh/h)			1049		367	570
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	467	190	73			
Volume Left	0	10	23			
Volume Right	11	0	51			
cSH	1700	1049	487			
Volume to Capacity	0.27	0.01	0.15			
Queue Length 95th (ft)	0	1	13			
Control Delay (s)	0.0	0.5	13.7			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	13.7			
Approach LOS			B			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			33.6%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 5: Keyes Rd & East Access

Ex PM + Project buildout
11/4/2016

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	499	2	2	178	0	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	537	2	2	191	0	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			539		733	538
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			539		733	538
tC, single (s)			5.1		7.4	7.2
tC, 2 stage (s)						
tF (s)			3.1		4.4	4.2
p0 queue free %			100		100	99
cM capacity (veh/h)			677		274	394
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	539	194	4			
Volume Left	0	2	0			
Volume Right	2	0	4			
cSH	1700	677	394			
Volume to Capacity	0.32	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.2	14.2			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.2	14.2			
Approach LOS			B			
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			36.4%		ICU Level of Service	A
Analysis Period (min)			15			

ALL TRAFFIC DATA

0480-01

County of Stanislaus
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Heavy Trucks On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7710-001 Bystrum Rd & Keyes Rd
Date : 10/4/2016

Unshifted Count = All Vehicles & Uturns																						
	Bystrum Rd Southbound					Keyes Rd Westbound					Bystrum Rd Northbound					Keyes Rd Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturns Total
7:00	0	0	0	0	0	8	36	0	0	44	1	0	3	0	4	0	30	5	0	35	83	0
7:15	0	0	0	0	0	12	67	0	0	79	10	0	5	0	15	0	40	9	0	49	143	0
7:30	0	0	0	0	0	11	70	0	0	81	4	0	3	0	7	0	40	4	0	44	132	0
7:45	0	0	0	0	0	14	79	0	0	93	6	0	4	0	10	0	36	10	0	46	149	0
Total	0	0	0	0	0	45	252	0	0	297	21	0	15	0	36	0	146	28	0	174	507	0
8:00	0	0	0	0	0	13	71	0	0	84	7	0	6	0	13	0	29	6	0	35	132	0
8:15	0	0	0	0	0	13	62	0	0	75	0	0	3	0	3	0	26	6	0	32	110	0
8:30	0	0	0	0	0	3	40	0	0	43	5	0	5	0	10	0	38	5	0	43	96	0
8:45	0	0	0	0	0	6	35	0	0	41	0	0	2	0	2	0	30	4	0	34	77	0
Total	0	0	0	0	0	35	208	0	0	243	12	0	16	0	28	0	123	21	0	144	415	0
16:00	0	0	0	0	0	2	43	0	0	45	8	0	21	0	29	0	87	0	0	87	161	0
16:15	0	0	0	0	0	4	47	0	0	51	2	0	7	0	9	0	81	3	0	84	144	0
16:30	0	0	0	0	0	1	34	0	0	35	5	0	7	0	12	0	108	2	0	110	157	0
16:45	0	0	0	0	0	1	50	0	0	51	5	0	2	0	7	0	96	0	0	96	154	0
Total	0	0	0	0	0	8	174	0	0	182	20	0	37	0	57	0	372	5	0	377	616	0
17:00	0	0	0	0	0	2	45	0	0	47	6	0	20	0	26	0	107	0	0	107	180	0
17:15	0	0	0	0	0	5	39	0	0	44	3	0	13	0	16	0	113	5	0	118	178	0
17:30	0	0	0	0	0	10	34	0	0	44	5	0	8	0	13	0	93	8	0	101	158	0
17:45	0	0	0	0	0	7	35	0	0	42	1	0	5	0	6	0	105	5	0	110	158	0
Total	0	0	0	0	0	24	153	0	0	177	15	0	46	0	61	0	418	18	0	436	674	0
Grand Total	0	0	0	0	0	112	787	0	0	899	68	0	114	0	182	0	1059	72	0	1131	2212	0
Apprch %	0.0%	0.0%	0.0%	0.0%		12.5%	87.5%	0.0%	0.0%		37.4%	0.0%	62.6%	0.0%		0.0%	93.6%	6.4%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	5.1%	35.6%	0.0%	0.0%	40.6%	3.1%	0.0%	5.2%	0.0%	8.2%	0.0%	47.9%	3.3%	0.0%	51.1%	100.0%	

AM PEAK HOUR	Bystrum Rd Southbound					Keyes Rd Westbound					Bystrum Rd Northbound					Keyes Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	0	0	0	0	0	12	67	0	0	79	10	0	5	0	15	0	40	9	0	49	143
7:30	0	0	0	0	0	11	70	0	0	81	4	0	3	0	7	0	40	4	0	44	132
7:45	0	0	0	0	0	14	79	0	0	93	6	0	4	0	10	0	36	10	0	46	149
8:00	0	0	0	0	0	13	71	0	0	84	7	0	6	0	13	0	29	6	0	35	132
Total Volume	0	0	0	0	0	50	287	0	0	337	27	0	18	0	45	0	145	29	0	174	556
% App Total	0.0%	0.0%	0.0%	0.0%		14.8%	85.2%	0.0%	0.0%		60.0%	0.0%	40.0%	0.0%		0.0%	83.3%	16.7%	0.0%		
PHF	.000	.000	.000	.000	.000	.893	.908	.000	.000	.906	.675	.000	.750	.000	.750	.000	.906	.725	.000	.888	.933

PM PEAK HOUR	Bystrum Rd Southbound					Keyes Rd Westbound					Bystrum Rd Northbound					Keyes Rd Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	1	34	0	0	35	5	0	7	0	12	0	108	2	0	110	157
16:45	0	0	0	0	0	1	50	0	0	51	5	0	2	0	7	0	96	0	0	96	154
17:00	0	0	0	0	0	2	45	0	0	47	6	0	20	0	26	0	107	0	0	107	180
17:15	0	0	0	0	0	5	39	0	0	44	3	0	13	0	16	0	113	5	0	118	178
Total Volume	0	0	0	0	0	9	168	0	0	177	19	0	42	0	61	0	424	7	0	431	669
% App Total	0.0%	0.0%	0.0%	0.0%		5.1%	94.9%	0.0%	0.0%		31.1%	0.0%	68.9%	0.0%		0.0%	98.4%	1.6%	0.0%		
PHF	.000	.000	.000	.000	.000	.450	.840	.000	.000	.868	.792	.000	.525	.000	.587	.000	.938	.350	.000	.913	.929

Bystrum Rd & Keyes Rd

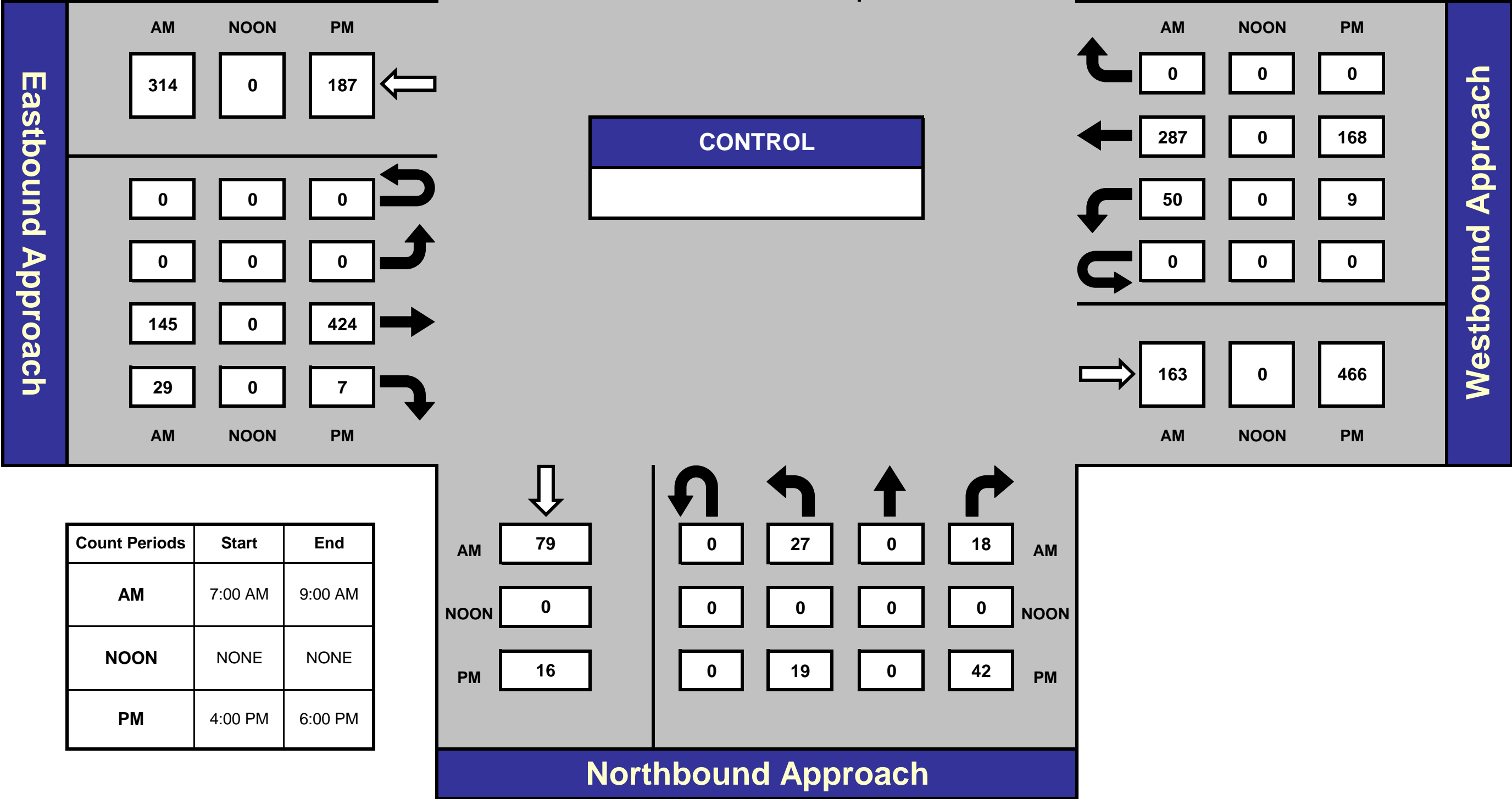
Date: 10/4/2016
Day: Tuesday

Project #: 16-7710-001

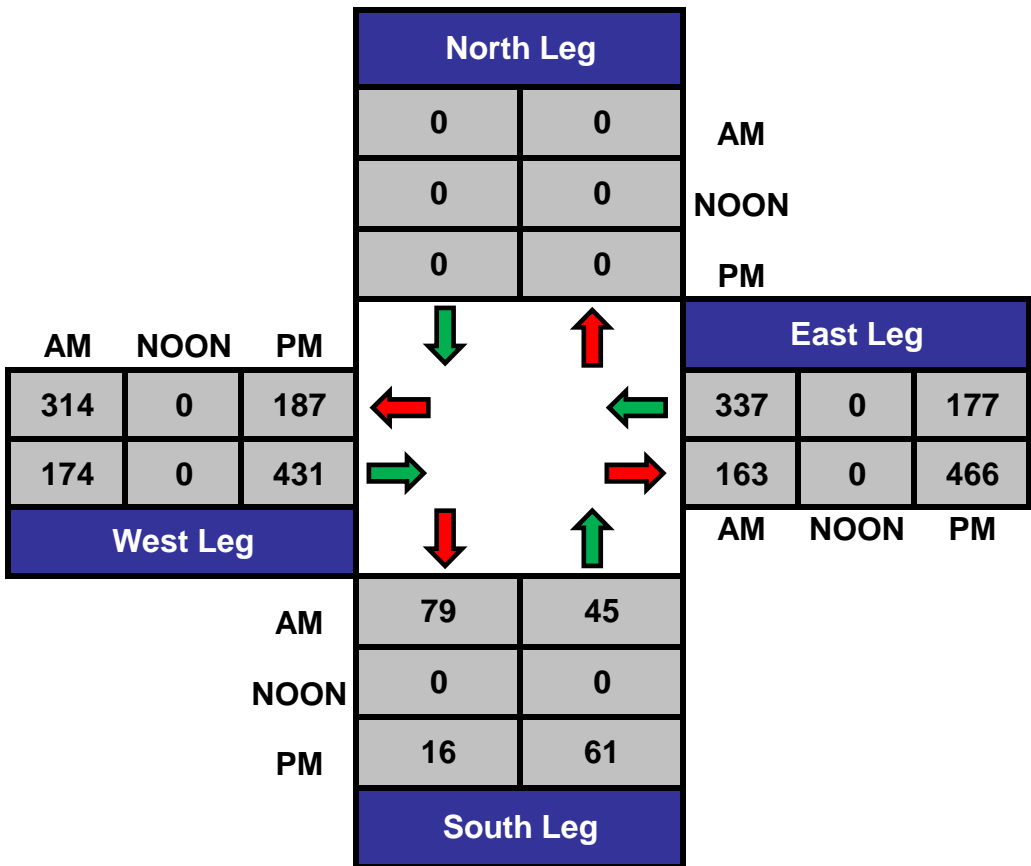


Bystrum Rd

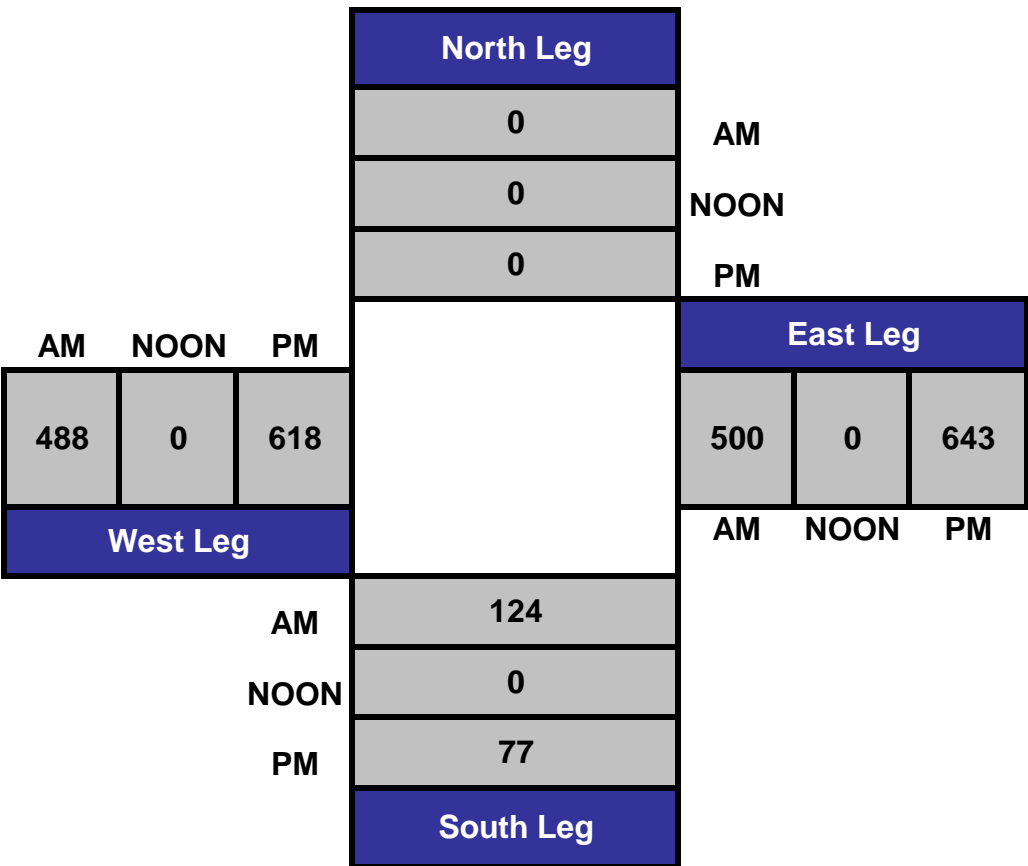
Keyes Rd



Total Ins & Outs



Total Volume Per Leg



ALL TRAFFIC DATA

County of Stanislaus
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Heavy Trucks On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7710-001 Bystrum Rd & Keyes Rd
Date : 10/4/2016

Bank 2 Count = Heavy Trucks

	Bystrum Rd Southbound					Keyes Rd Westbound					Bystrum Rd Northbound					Keyes Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	0	0	0	0	1	4	0	0	5	1	0	0	0	1	0	2	2	0	4	10	0
7:15	0	0	0	0	0	0	8	0	0	8	3	0	3	0	6	0	8	1	0	9	23	0
7:30	0	0	0	0	0	0	6	0	0	6	1	0	2	0	3	0	4	1	0	5	14	0
7:45	0	0	0	0	0	0	10	0	0	10	1	0	1	0	2	0	7	1	0	8	20	0
Total	0	0	0	0	0	1	28	0	0	29	6	0	6	0	12	0	21	5	0	26	67	0
8:00	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	0	4	1	0	5	13	0
8:15	0	0	0	0	0	1	10	0	0	11	0	0	1	0	1	0	5	2	0	7	19	0
8:30	0	0	0	0	0	1	2	0	0	3	3	0	1	0	4	0	3	2	0	5	12	0
8:45	0	0	0	0	0	1	5	0	0	6	0	0	1	0	1	0	6	2	0	8	15	0
Total	0	0	0	0	0	3	24	0	0	27	4	0	3	0	7	0	18	7	0	25	59	0
16:00	0	0	0	0	0	2	6	0	0	8	1	0	2	0	3	0	4	0	0	4	15	0
16:15	0	0	0	0	0	1	4	0	0	5	1	0	2	0	3	0	2	3	0	5	13	0
16:30	0	0	0	0	0	1	2	0	0	3	3	0	0	0	3	0	12	2	0	14	20	0
16:45	0	0	0	0	0	0	6	0	0	6	2	0	1	0	3	0	7	0	0	7	16	0
Total	0	0	0	0	0	4	18	0	0	22	7	0	5	0	12	0	25	5	0	30	64	0
17:00	0	0	0	0	0	0	7	0	0	7	2	0	2	0	4	0	7	0	0	7	18	0
17:15	0	0	0	0	0	0	2	0	0	2	1	0	4	0	5	0	8	1	0	9	16	0
17:30	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	5	0	0	5	10	0
17:45	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	7	1	0	8	12	0
Total	0	0	0	0	0	1	16	0	0	17	3	0	7	0	10	0	27	2	0	29	56	0
Grand Total	0	0	0	0	0	9	86	0	0	95	20	0	21	0	41	0	91	19	0	110	246	0
Apprch %	0.0%	0.0%	0.0%			9.5%	90.5%	0.0%			48.8%	0.0%	51.2%			0.0%	82.7%	17.3%				
Total %	0.0%	0.0%	0.0%		0.0%	3.7%	35.0%	0.0%		38.6%	8.1%	0.0%	8.5%		16.7%	0.0%	37.0%	7.7%		44.7%	100.0%	

AM PEAK HOUR	Bystrum Rd Southbound					Keyes Rd Westbound					Bystrum Rd Northbound					Keyes Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	0	0	0	0	0	0	8	0	0	8	3	0	3	0	6	0	8	1	0	9	23
7:30	0	0	0	0	0	0	6	0	0	6	1	0	2	0	3	0	4	1	0	5	14
7:45	0	0	0	0	0	0	10	0	0	10	1	0	1	0	2	0	7	1	0	8	20
8:00	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	0	4	1	0	5	13
Total Volume	0	0	0	0	0	0	31	0	0	31	6	0	6	0	12	0	23	4	0	27	70
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			50.0%	0.0%	50.0%			0.0%	85.2%	14.8%			
PHF	.000	.000	.000		.000	.000	.775	.000		.775	.500	.000	.500		.500	.000	.719	1.000		.750	.761

PM PEAK HOUR	Bystrum Rd Southbound					Keyes Rd Westbound					Bystrum Rd Northbound					Keyes Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	1	2	0	0	3	3	0	0	0	3	0	12	2	0	14	20
16:45	0	0	0	0	0	0	6	0	0	6	2	0	1	0	3	0	7	0	0	7	16
17:00	0	0	0	0	0	0	7	0	0	7	2	0	2	0	4	0	7	0	0	7	18
17:15	0	0	0	0	0	0	2	0	0	2	1	0	4	0	5	0	8	1	0	9	16
Total Volume	0	0	0	0	0	1	17	0	0	18	8	0	7	0	15	0	34	3	0	37	70
% App Total	0.0%	0.0%	0.0%			5.6%	94.4%	0.0%			53.3%	0.0%	46.7%			0.0%	91.9%	8.1%			
PHF	.000	.000	.000		.000	.250	.607	.000		.643	.667	.000	.438		.750	.000	.708	.375		.661	.875

Bystrum Rd & Keyes Rd

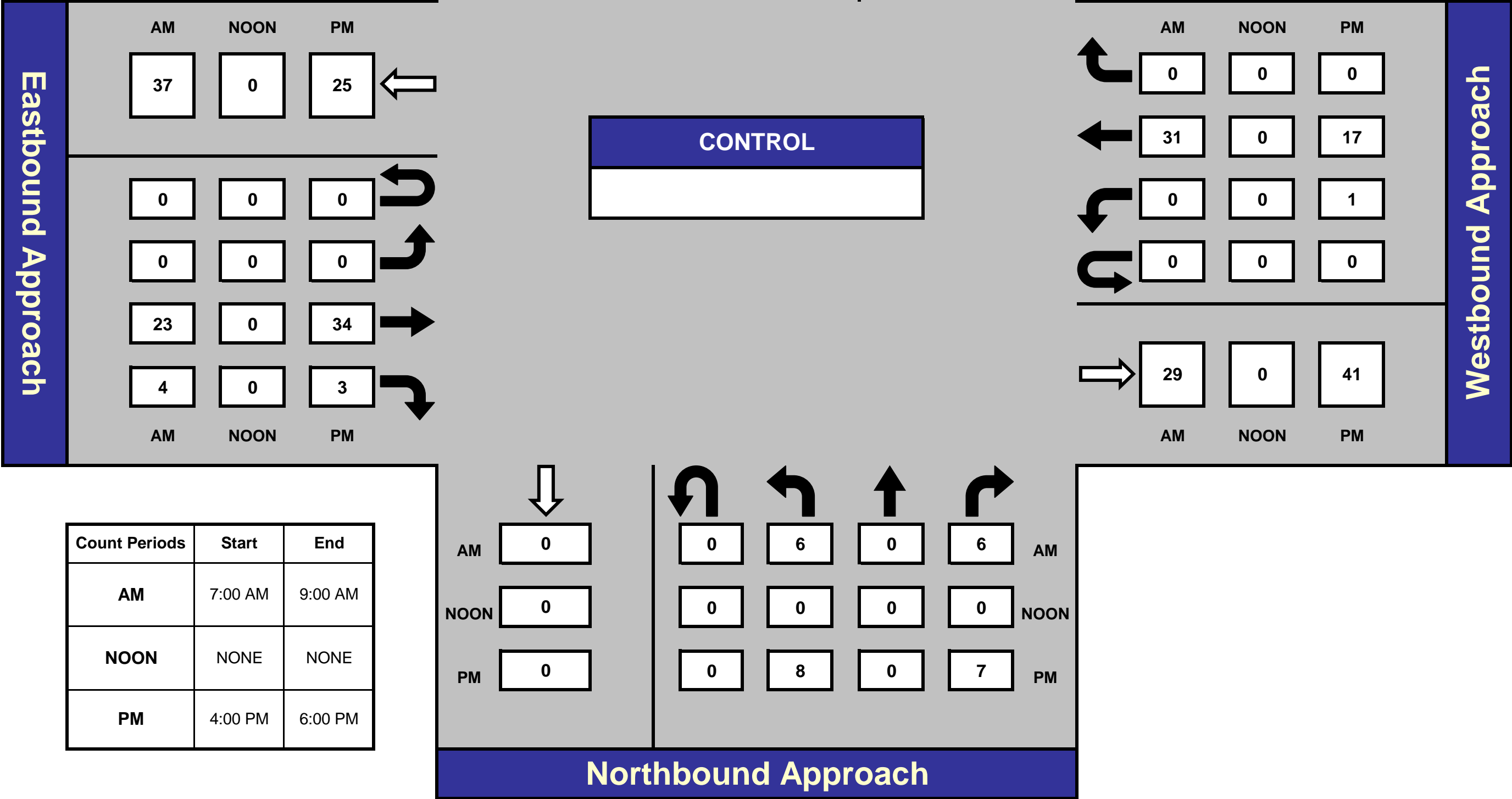
Date: 10/4/2016
Day: Tuesday

Project #: 16-7710-001



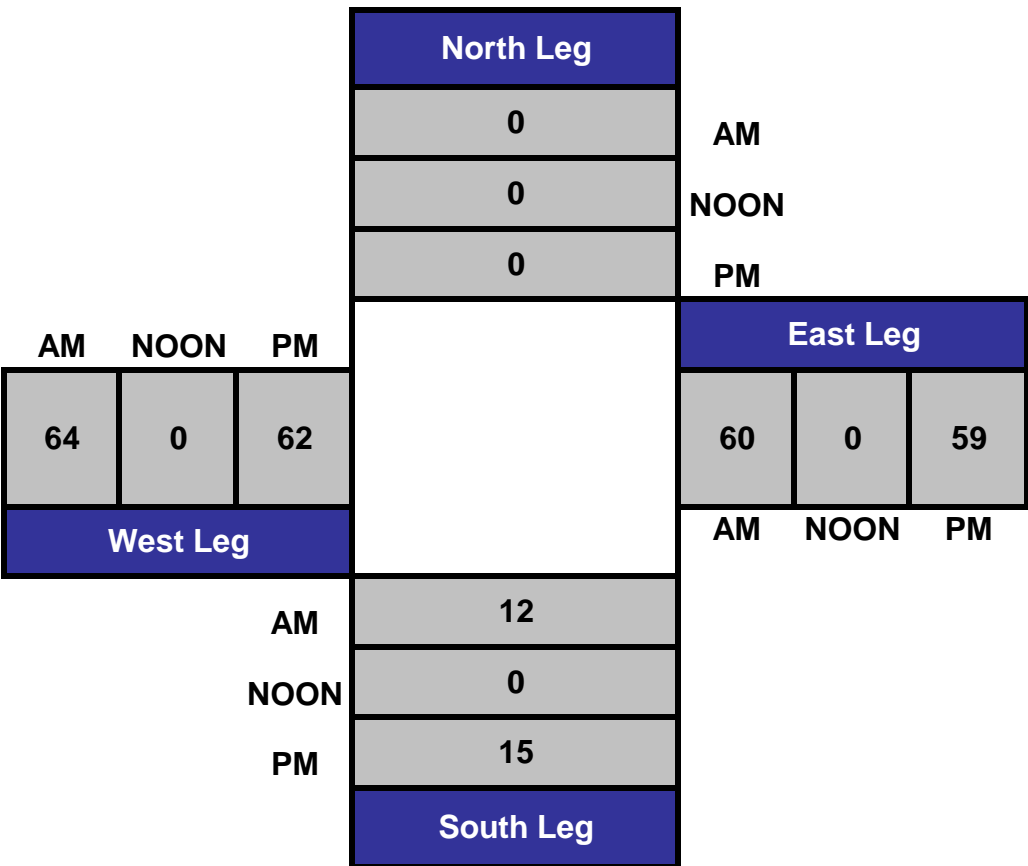
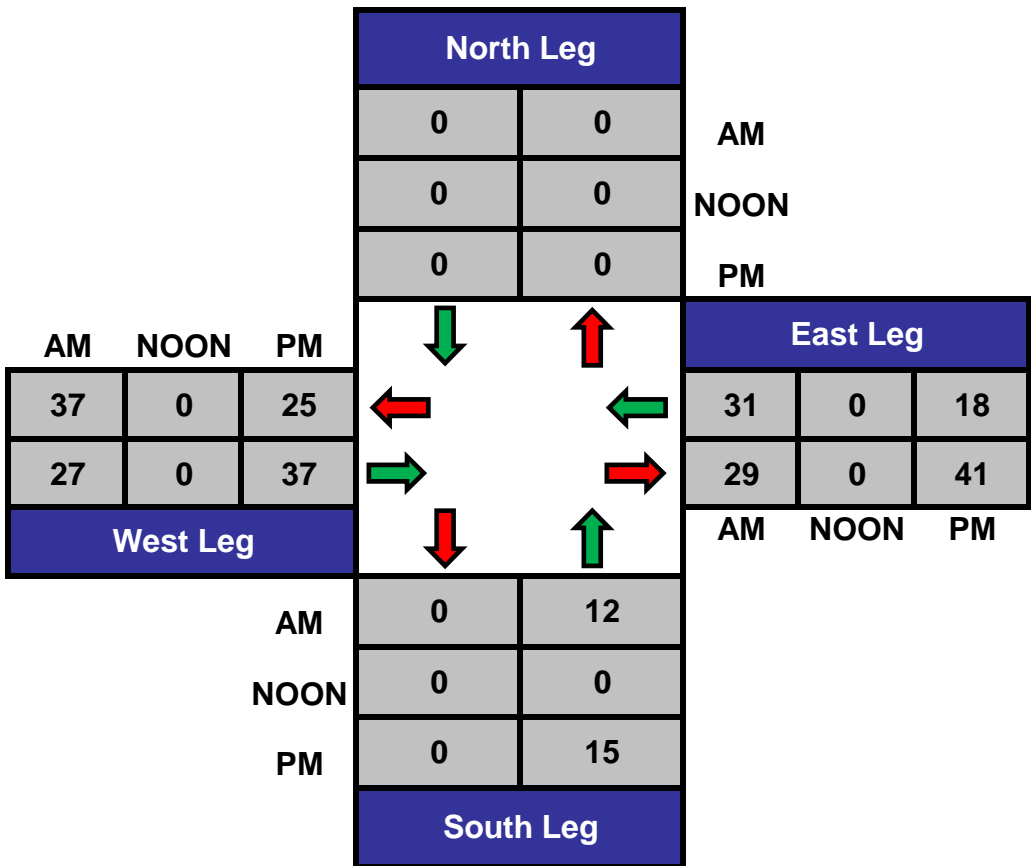
Bystrum Rd

Keyes Rd



Total Ins & Outs

Total Volume Per Leg



ALL TRAFFIC DATA

0480-01

County of Stanislaus
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Heavy Trucks On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7710-002 East Entrance to Bronco Winery & Keyes Rd
Date : 10/4/2016

Unshifted Count = All Vehicles & Uturns

	East Entrance to Bronco Winery Southbound					Keyes Rd Westbound					East Entrance to Bronco Winery Northbound					Keyes Rd Eastbound					Total	Uturns Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
7:00	0	0	0	0	0	0	54	0	0	54	0	0	0	0	0	0	31	0	0	31	85	0
7:15	0	0	0	0	0	0	73	0	0	73	0	0	0	0	0	0	35	1	0	36	109	0
7:30	0	0	0	0	0	0	104	0	0	104	0	0	0	0	0	0	53	1	0	54	158	0
7:45	0	0	0	0	0	0	109	0	0	109	0	0	0	0	0	0	42	0	0	42	151	0
Total	0	0	0	0	0	0	340	0	0	340	0	0	0	0	0	0	161	2	0	163	503	0
8:00	0	0	0	0	0	0	97	0	0	97	2	0	0	0	2	0	38	1	0	39	138	0
8:15	0	0	0	0	0	1	71	0	0	72	0	0	0	0	0	0	26	0	0	26	98	0
8:30	0	0	0	0	0	0	53	0	0	53	0	0	0	0	0	0	45	0	0	45	98	0
8:45	0	0	0	0	0	0	41	0	0	41	0	0	0	0	0	0	35	0	0	35	76	0
Total	0	0	0	0	0	1	262	0	0	263	2	0	0	0	2	0	144	1	0	145	410	0
16:00	0	0	0	0	0	0	49	0	0	49	0	0	0	0	0	0	120	0	0	120	169	0
16:15	0	0	0	0	0	0	50	0	0	50	0	0	0	0	0	0	94	0	0	94	144	0
16:30	0	0	0	0	0	1	38	0	0	39	0	0	0	0	0	0	130	0	0	130	169	0
16:45	0	0	0	0	0	0	49	0	0	49	0	0	1	0	1	0	108	1	0	109	159	0
Total	0	0	0	0	0	1	186	0	0	187	0	0	1	0	1	0	452	1	0	453	641	0
17:00	0	0	0	0	0	1	48	0	0	49	0	0	1	0	1	0	127	0	0	127	177	0
17:15	0	0	0	0	0	0	43	0	0	43	0	0	2	0	2	0	129	1	0	130	175	0
17:30	0	0	0	0	0	0	43	0	0	43	0	0	1	0	1	0	104	1	0	105	149	0
17:45	0	0	0	0	0	0	44	0	0	44	0	0	1	0	1	0	121	0	0	121	166	0
Total	0	0	0	0	0	1	178	0	0	179	0	0	5	0	5	0	481	2	0	483	667	0
Grand Total	0	0	0	0	0	3	966	0	0	969	2	0	6	0	8	0	1238	6	0	1244	2221	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.3%	99.7%	0.0%	0.0%		25.0%	0.0%	75.0%	0.0%		0.0%	99.5%	0.5%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	43.5%	0.0%	0.0%	43.6%	0.1%	0.0%	0.3%	0.0%	0.4%	0.0%	55.7%	0.3%	0.0%	56.0%	100.0%	

AM PEAK HOUR	East Entrance to Bronco Winery Southbound					Keyes Rd Westbound					East Entrance to Bronco Winery Northbound					Keyes Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	0	0	0	0	0	0	73	0	0	73	0	0	0	0	0	0	35	1	0	36	109
7:30	0	0	0	0	0	0	104	0	0	104	0	0	0	0	0	0	53	1	0	54	158
7:45	0	0	0	0	0	0	109	0	0	109	0	0	0	0	0	0	42	0	0	42	151
8:00	0	0	0	0	0	0	97	0	0	97	2	0	0	0	2	0	38	1	0	39	138
Total Volume	0	0	0	0	0	0	383	0	0	383	2	0	0	0	2	0	168	3	0	171	556
% App Total	0.0%	0.0%	0.0%	0.0%		0.0%	100.0%	0.0%	0.0%		100.0%	0.0%	0.0%	0.0%		0.0%	98.2%	1.8%	0.0%		
PHF	.000	.000	.000	.000	.000	.000	.878	.000	.000	.878	.250	.000	.000	.000	.250	.000	.792	.750	.000	.792	.880

PM PEAK HOUR	East Entrance to Bronco Winery Southbound					Keyes Rd Westbound					East Entrance to Bronco Winery Northbound					Keyes Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	1	38	0	0	39	0	0	0	0	0	0	130	0	0	130	169
16:45	0	0	0	0	0	0	49	0	0	49	0	0	1	0	1	0	108	1	0	109	159
17:00	0	0	0	0	0	1	48	0	0	49	0	0	1	0	1	0	127	0	0	127	177
17:15	0	0	0	0	0	0	43	0	0	43	0	0	2	0	2	0	129	1	0	130	175
Total Volume	0	0	0	0	0	2	178	0	0	180	0	0	4	0	4	0	494	2	0	496	680
% App Total	0.0%	0.0%	0.0%	0.0%		1.1%	98.9%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	99.6%	0.4%	0.0%		
PHF	.000	.000	.000	.000	.000	.500	.908	.000	.000	.918	.000	.000	.500	.000	.500	.000	.950	.500	.000	.954	.960

East Entrance to Bronco Winery & Keyes Rd

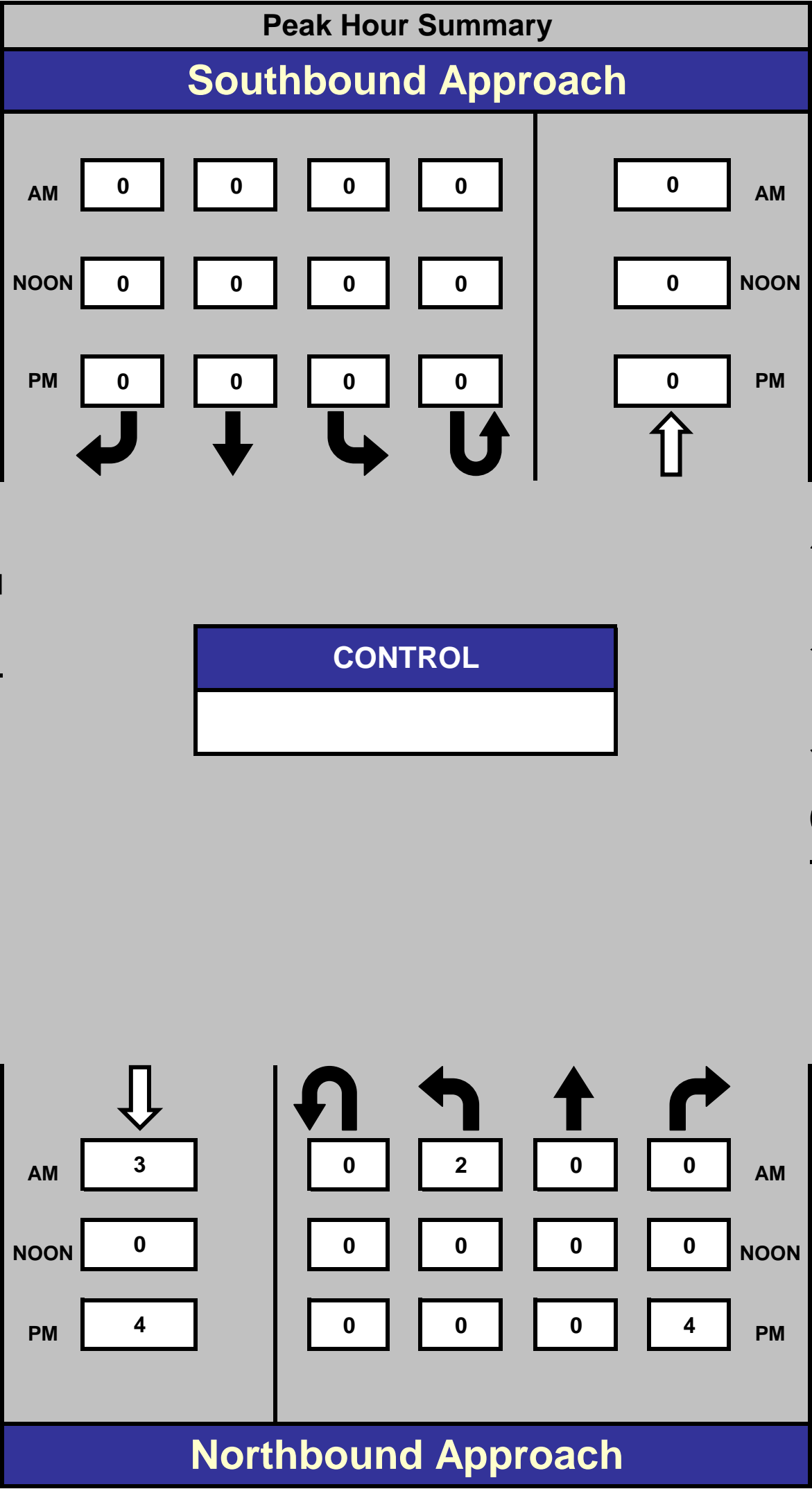
Date: 10/4/2016
Day: Tuesday

Project #: 16-7710-002



Keyes Rd

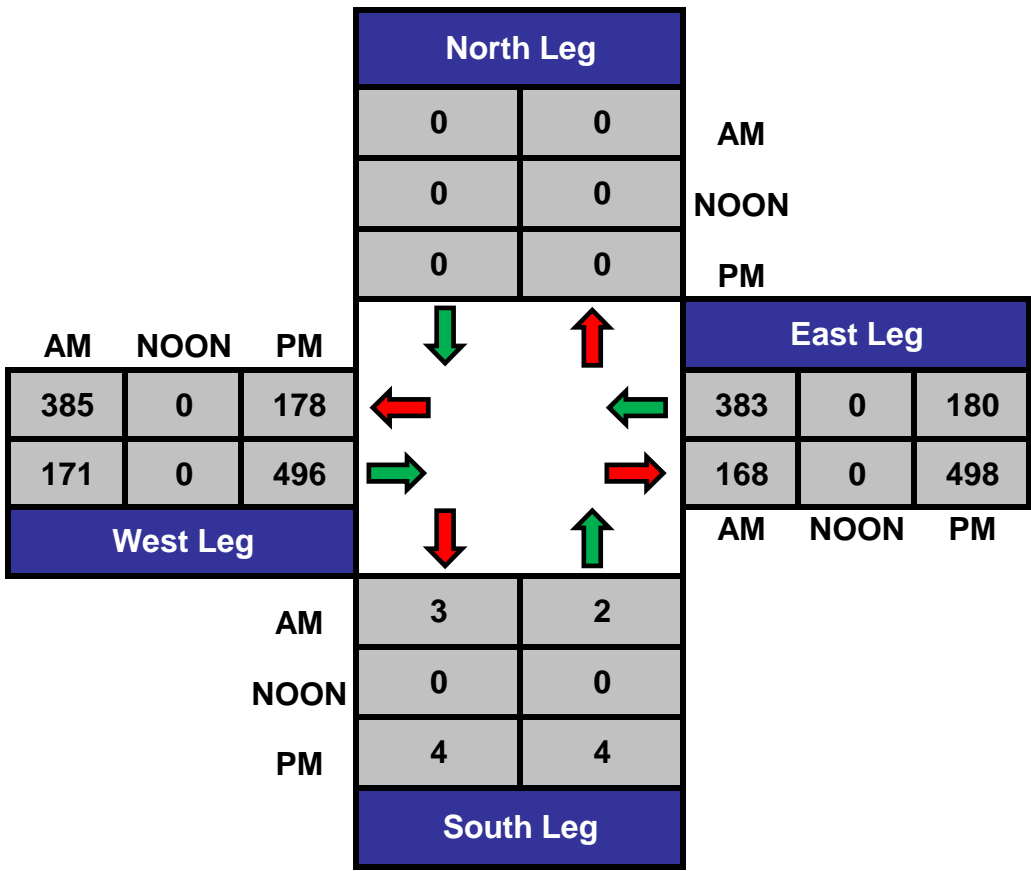
East Entrance to Bronco



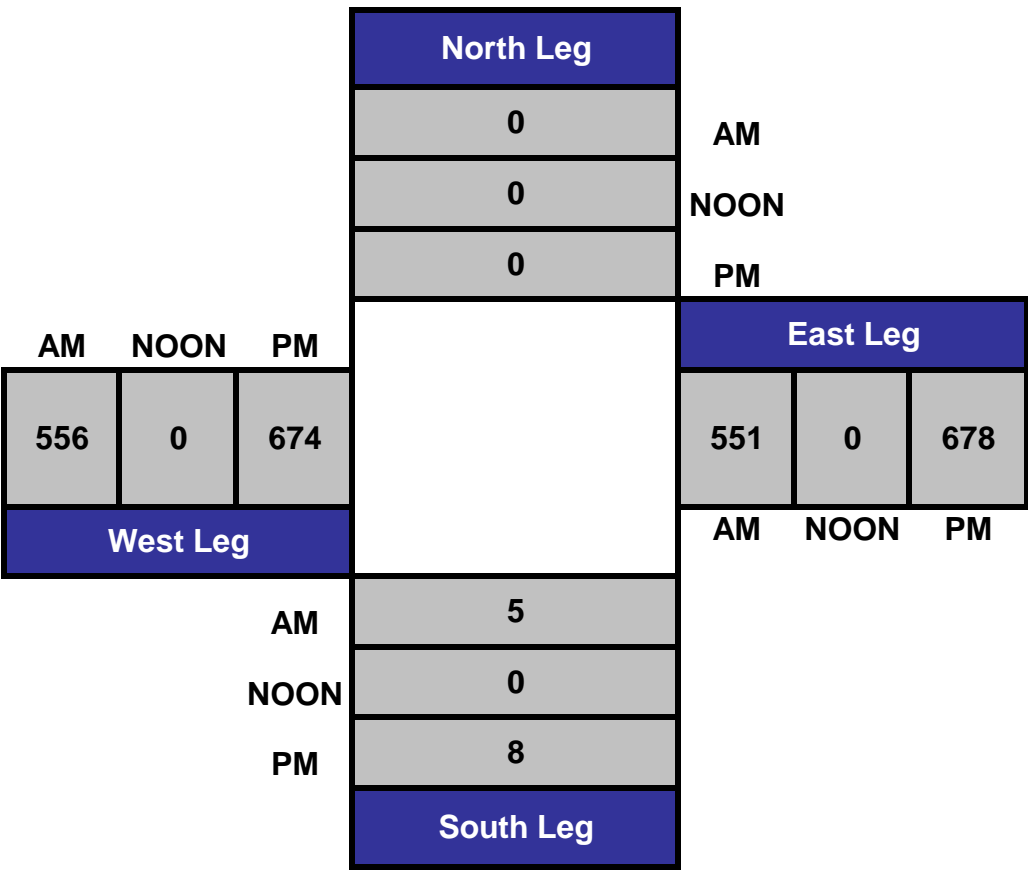
AM Peak Hour	07:15 - 08:15
NOON Peak Hour	
PM Peak Hour	16:30 - 17:30

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ALL TRAFFIC DATA

County of Stanislaus
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Heavy Trucks On Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 16-7710-002 East Entrance to Bronco Winery & Keyes Rd
Date : 10/4/2016

Bank 2 Count = Heavy Trucks

	East Entrance to Bronco Winery Southbound					Keyes Rd Westbound					East Entrance to Bronco Winery Northbound					Keyes Rd Eastbound					Total	Peds Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
7:00	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8	0
7:15	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	5	1	0	6	12	0
7:30	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	7	1	0	8	18	0
7:45	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	8	0	0	8	17	0
Total	0	0	0	0	0	0	31	0	0	31	0	0	0	0	0	0	22	2	0	24	55	0
8:00	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	0	6	0	0	6	13	0
8:15	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	16	0
8:30	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	10	0
8:45	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15	0
Total	0	0	0	0	0	0	26	0	0	26	2	0	0	0	2	0	26	0	0	26	54	0
16:00	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	12	0
16:15	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10	0
16:30	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	13	0	0	13	18	0
16:45	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	7	1	0	8	14	0
Total	0	0	0	0	0	1	21	0	0	22	0	0	1	0	1	0	30	1	0	31	54	0
17:00	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	9	0	0	9	16	0
17:15	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	0	8	1	0	9	14	0
17:30	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	6	1	0	7	13	0
17:45	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	6	0	0	6	10	0
Total	0	0	0	0	0	1	17	0	0	18	0	0	4	0	4	0	29	2	0	31	53	0
Grand Total	0	0	0	0	0	2	95	0	0	97	2	0	5	0	7	0	107	5	0	112	216	0
Apprch %	0.0%	0.0%	0.0%			2.1%	97.9%	0.0%			28.6%	0.0%	71.4%			0.0%	95.5%	4.5%				
Total %	0.0%	0.0%	0.0%		0.0%	0.9%	44.0%	0.0%		44.9%	0.9%	0.0%	2.3%		3.2%	0.0%	49.5%	2.3%		51.9%	100.0%	

AM PEAK HOUR	East Entrance to Bronco Winery Southbound					Keyes Rd Westbound					East Entrance to Bronco Winery Northbound					Keyes Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
7:15	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	5	1	0	6	12
7:30	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	7	1	0	8	18
7:45	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	8	0	0	8	17
8:00	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	0	6	0	0	6	13
Total Volume	0	0	0	0	0	0	30	0	0	30	2	0	0	0	2	0	26	2	0	28	60
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			0.0%	92.9%	7.1%			
PHF	.000	.000	.000		.000	.000	.750	.000		.750	.250	.000	.000		.250	.000	.813	.500		.875	.833

PM PEAK HOUR	East Entrance to Bronco Winery Southbound					Keyes Rd Westbound					East Entrance to Bronco Winery Northbound					Keyes Rd Eastbound					Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	13	0	0	13	18
16:45	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	7	1	0	8	14
17:00	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	9	0	0	9	16
17:15	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	0	8	1	0	9	14
Total Volume	0	0	0	0	0	2	18	0	0	20	0	0	3	0	3	0	37	2	0	39	62
% App Total	0.0%	0.0%	0.0%			10.0%	90.0%	0.0%			0.0%	0.0%	100.0%			0.0%	94.9%	5.1%			
PHF	.000	.000	.000		.000	.500	.750	.000		.714	.000	.000	.375		.375	.000	.712	.500		.750	.861

East Entrance to Bronco Winery & Keyes Rd

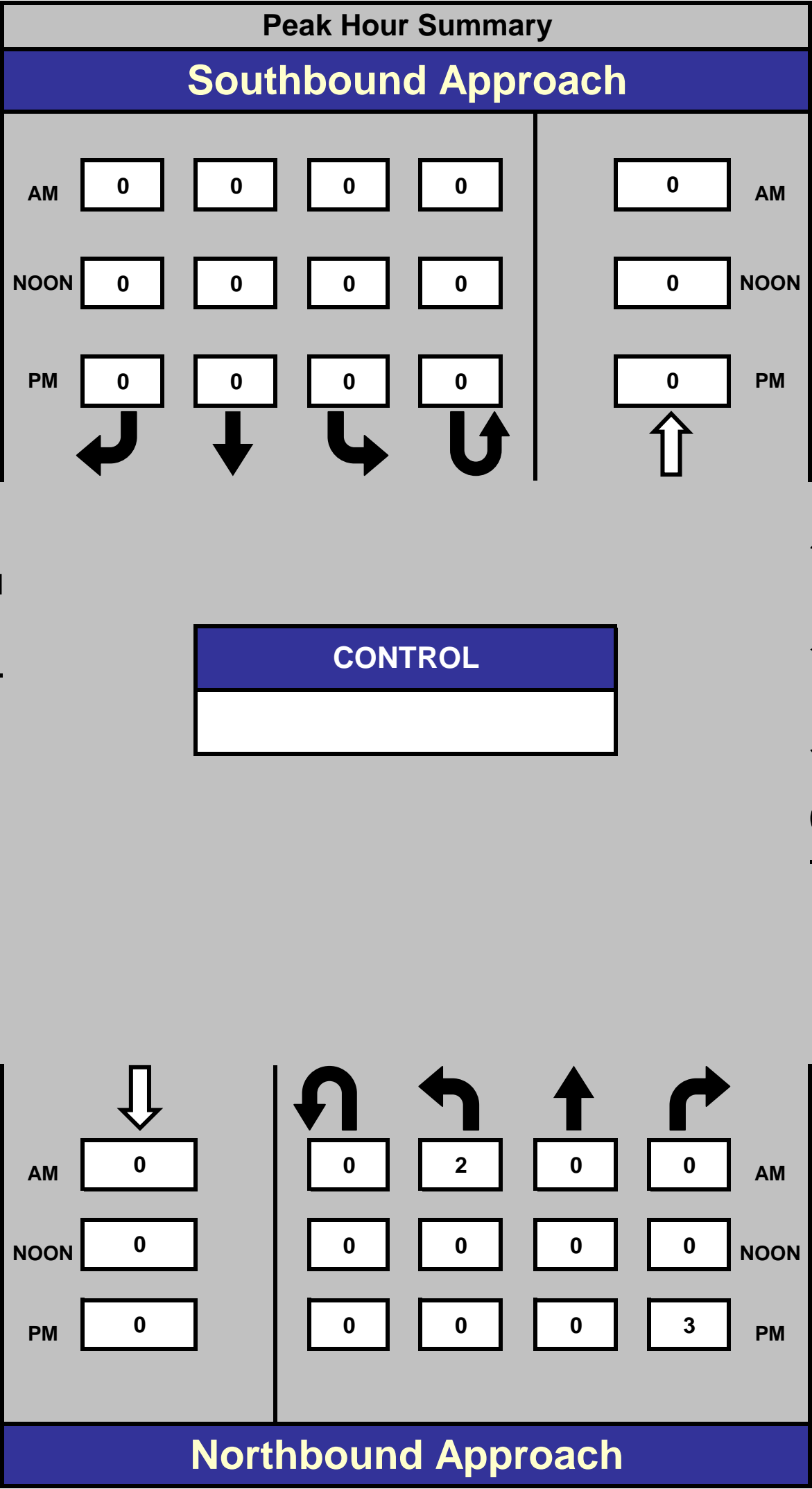
Date: 10/4/2016
Day: Tuesday

Project #: 16-7710-002



Keyes Rd

East Entrance to Bronco



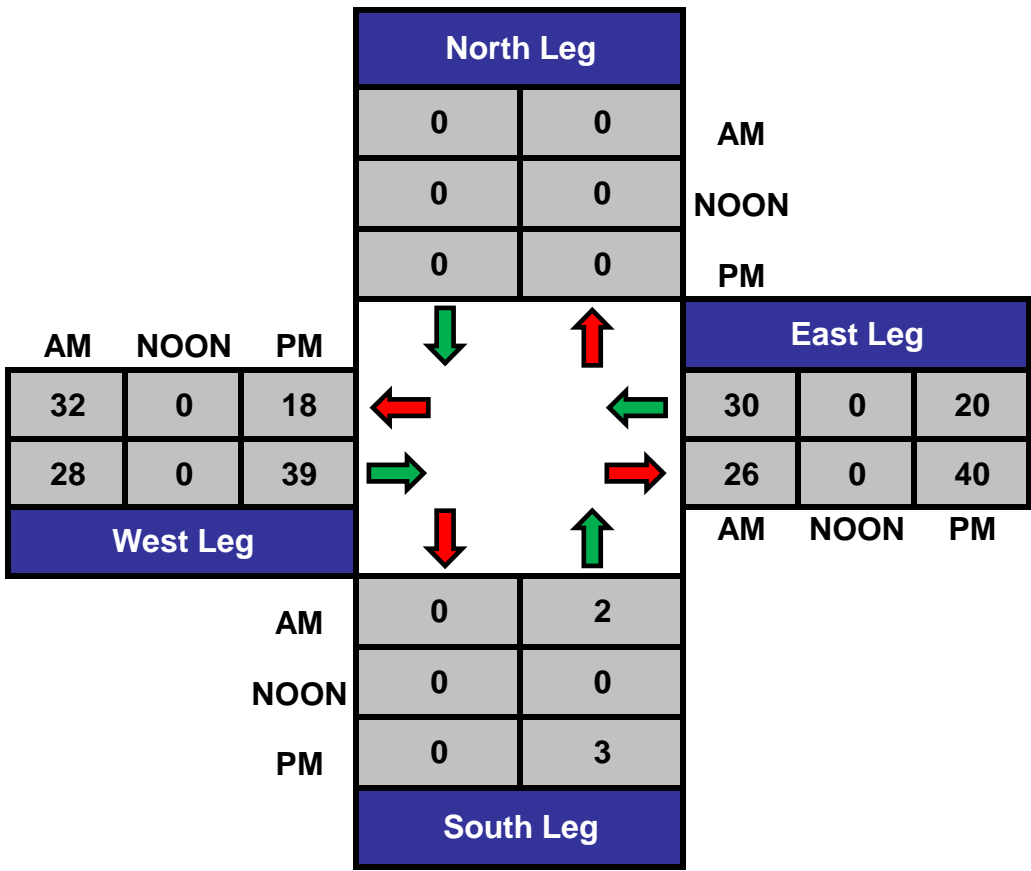
AM Peak Hour	07:15 - 08:15
NOON Peak Hour	
PM Peak Hour	16:30 - 17:30

AM	NOON	PM
32	0	18
0	0	0
0	0	0
26	0	37
2	0	2
AM	NOON	PM

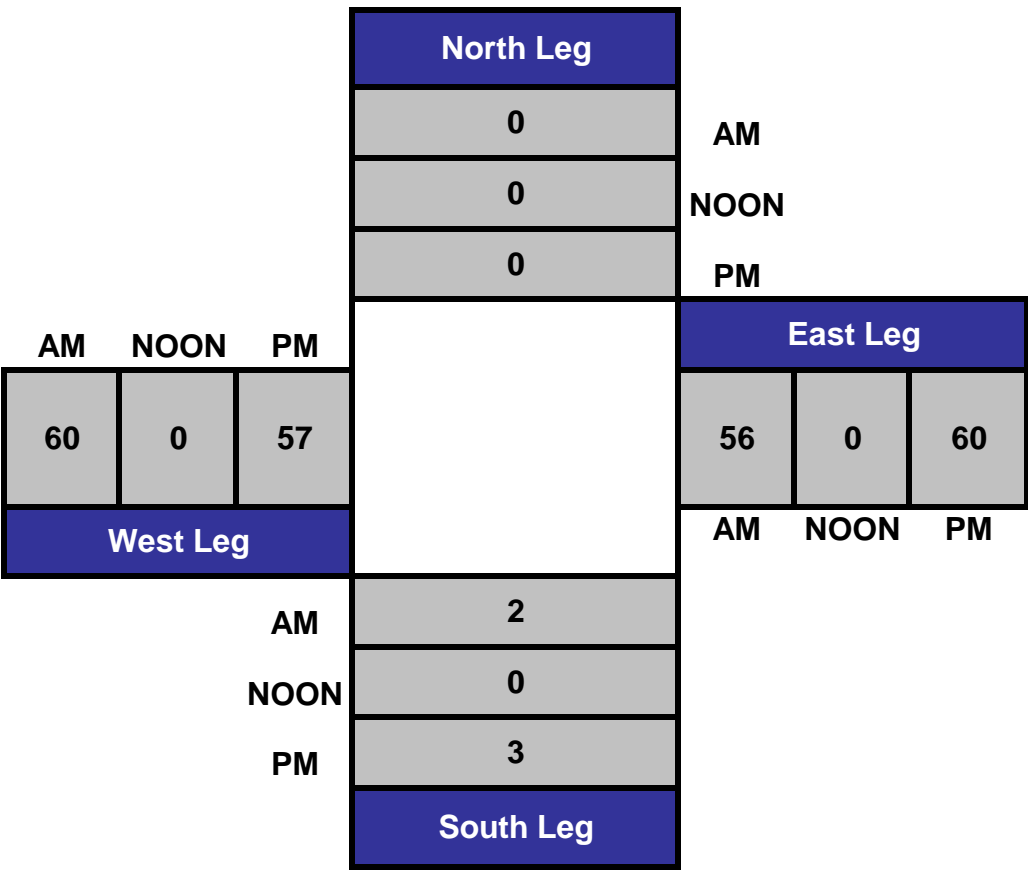
AM	NOON	PM
0	0	0
30	0	18
0	0	2
0	0	0
26	0	40
AM	NOON	PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



CLASSIFICATION

Bystrum Rd S/O Keyes Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_004

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	21	2	0	1	0	0	0	1	0	1	0	0	26
1:00	0	5	1	0	1	0	0	0	2	0	0	0	0	9
2:00	0	15	1	1	0	0	0	1	1	0	0	0	0	19
3:00	1	13	1	0	5	0	0	1	1	0	0	0	0	22
4:00	0	10	6	0	11	0	0	0	5	0	0	0	0	32
5:00	0	49	8	0	20	0	0	0	9	0	0	0	0	86
6:00	0	73	20	1	8	1	0	1	5	0	2	0	0	111
7:00	0	65	16	0	14	0	0	0	12	0	1	2	0	110
8:00	0	54	6	2	13	0	0	2	10	0	0	0	0	87
9:00	0	18	3	1	7	0	0	1	12	0	2	0	0	44
10:00	1	13	13	4	12	0	0	1	10	0	1	0	0	55
11:00	0	20	8	0	8	0	0	1	12	0	2	0	0	51
12:00 PM	1	31	8	0	10	1	0	1	12	0	1	2	0	67
13:00	0	50	14	1	11	3	0	1	12	0	0	1	0	93
14:00	0	88	24	5	14	0	0	0	12	0	0	1	0	144
15:00	1	62	16	3	13	0	0	0	5	0	0	1	0	101
16:00	0	36	10	0	11	0	0	2	15	0	2	0	0	76
17:00	0	75	13	1	6	0	0	0	8	0	1	0	0	104
18:00	0	45	9	0	0	1	0	1	7	0	0	0	0	63
19:00	0	18	4	1	3	0	0	0	8	0	0	0	0	34
20:00	0	10	2	0	1	0	0	0	6	0	0	0	0	19
21:00	0	18	3	0	2	0	0	0	1	0	0	0	0	24
22:00	0	33	5	0	1	0	0	0	1	0	0	0	0	40
23:00	0	57	1	0	1	0	0	0	1	0	0	0	0	60
Totals	4	879	194	20	173	6		13	168		13	7		1477
% of Totals	0%	60%	13%	1%	12%	0%		1%	11%		1%	0%		100%

AM Volumes	2	356	85	9	100	1	0	8	80	0	9	2	0	652
% AM	0%	24%	6%	1%	7%	0%		1%	5%		1%	0%		44%
AM Peak Hour	10:00	6:00	6:00	10:00	5:00	6:00		8:00	7:00		6:00	7:00		6:00
Volume	1	73	20	4	20	1		2	12		2	2		111
PM Volumes	2	523	109	11	73	5	0	5	88	0	4	5	0	825
% PM	0%	35%	7%	1%	5%	0%		0%	6%		0%	0%		56%
PM Peak Hour	12:00	14:00	14:00	14:00	14:00	13:00		16:00	16:00		16:00	12:00		14:00
Volume	1	88	24	5	14	3		2	15		2	2		144
Directional Peak Periods		AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes						
All Classes		Volume	%	Volume	%	Volume	%	Volume	%					
		197	↔ 13%	160	↔ 11%	180	↔ 12%	940	↔ 64%					

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Bystrum Rd S/O Keyes Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_004s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
2:00	0	9	1	0	0	0	0	0	1	0	0	0	0	11
3:00	1	11	0	0	1	0	0	0	1	0	0	0	0	14
4:00	0	9	4	0	7	0	0	0	4	0	0	0	0	24
5:00	0	48	7	0	15	0	0	0	7	0	0	0	0	77
6:00	0	32	11	1	7	0	0	0	3	0	2	0	0	56
7:00	0	46	11	0	11	0	0	0	5	0	0	1	0	74
8:00	0	36	4	1	10	0	0	2	6	0	0	0	0	59
9:00	0	12	1	1	6	0	0	1	5	0	0	0	0	26
10:00	1	5	6	3	9	0	0	1	3	0	1	0	0	29
11:00	0	7	1	0	5	0	0	0	7	0	1	0	0	21
12:00 PM	1	11	4	0	9	1	0	1	6	0	0	1	0	34
13:00	0	39	7	1	8	0	0	1	8	0	0	0	0	64
14:00	0	38	10	5	6	0	0	0	6	0	0	1	0	66
15:00	0	14	5	2	11	0	0	0	3	0	0	0	0	35
16:00	0	0	2	0	4	0	0	2	6	0	1	0	0	15
17:00	0	29	6	1	5	0	0	0	1	0	0	0	0	42
18:00	0	4	1	0	0	1	0	0	4	0	0	0	0	10
19:00	0	4	2	1	1	0	0	0	5	0	0	0	0	13
20:00	0	5	2	0	1	0	0	0	0	0	0	0	0	8
21:00	0	15	3	0	2	0	0	0	0	0	0	0	0	20
22:00	0	16	3	0	1	0	0	0	1	0	0	0	0	21
23:00	0	19	0	0	1	0	0	0	0	0	0	0	0	20
Totals	3	411	92	16	122	2		8	82		5	3		744
% of Totals	0%	55%	12%	2%	16%	0%		1%	11%		1%	0%		100%

AM Volumes	2	217	47	6	73	0	0	4	42	0	4	1	0	396
% AM	0%	29%	6%	1%	10%			1%	6%		1%	0%		53%
AM Peak Hour	10:00	5:00	6:00	10:00	5:00			8:00	5:00		6:00	7:00		5:00
Volume	1	48	11	3	15			2	7		2	1		77
PM Volumes	1	194	45	10	49	2	0	4	40	0	1	2	0	348
% PM	0%	26%	6%	1%	7%	0%		1%	5%		0%	0%		47%
PM Peak Hour	12:00	13:00	14:00	14:00	15:00	12:00		16:00	13:00		16:00	12:00		14:00
Volume	1	39	10	5	11	1		2	8		1	1		66
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6				Off Peak Volumes
All Classes		Volume		%		Volume		%		Volume		%		Volume
		133		18%		98		13%		57		8%		456
		↔				↔				↔				↔

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Bystrum Rd S/O Keyes Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_004n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	21	2	0	0	0	0	0	1	0	1	0	0	25
1:00	0	3	0	0	0	0	0	0	2	0	0	0	0	5
2:00	0	6	0	1	0	0	0	1	0	0	0	0	0	8
3:00	0	2	1	0	4	0	0	1	0	0	0	0	0	8
4:00	0	1	2	0	4	0	0	0	1	0	0	0	0	8
5:00	0	1	1	0	5	0	0	0	2	0	0	0	0	9
6:00	0	41	9	0	1	1	0	1	2	0	0	0	0	55
7:00	0	19	5	0	3	0	0	0	7	0	1	1	0	36
8:00	0	18	2	1	3	0	0	0	4	0	0	0	0	28
9:00	0	6	2	0	1	0	0	0	7	0	2	0	0	18
10:00	0	8	7	1	3	0	0	0	7	0	0	0	0	26
11:00	0	13	7	0	3	0	0	1	5	0	1	0	0	30
12:00 PM	0	20	4	0	1	0	0	0	6	0	1	1	0	33
13:00	0	11	7	0	3	3	0	0	4	0	0	1	0	29
14:00	0	50	14	0	8	0	0	0	6	0	0	0	0	78
15:00	1	48	11	1	2	0	0	0	2	0	0	1	0	66
16:00	0	36	8	0	7	0	0	0	9	0	1	0	0	61
17:00	0	46	7	0	1	0	0	0	7	0	1	0	0	62
18:00	0	41	8	0	0	0	0	1	3	0	0	0	0	53
19:00	0	14	2	0	2	0	0	0	3	0	0	0	0	21
20:00	0	5	0	0	0	0	0	0	6	0	0	0	0	11
21:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4
22:00	0	17	2	0	0	0	0	0	0	0	0	0	0	19
23:00	0	38	1	0	0	0	0	0	1	0	0	0	0	40
Totals	1	468	102	4	51	4		5	86		8	4		733
% of Totals	0%	64%	14%	1%	7%	1%		1%	12%		1%	1%		100%

AM Volumes	0	139	38	3	27	1	0	4	38	0	5	1	0	256
% AM		19%	5%	0%	4%	0%		1%	5%		1%	0%		35%
AM Peak Hour		6:00	6:00	2:00	5:00	6:00		2:00	7:00		9:00	7:00		6:00
Volume		41	9	1	5	1		1	7		2	1		55
PM Volumes	1	329	64	1	24	3	0	1	48	0	3	3	0	477
% PM	0%	45%	9%	0%	3%	0%		0%	7%		0%	0%		65%
PM Peak Hour	15:00	14:00	14:00	15:00	14:00	13:00		18:00	16:00		12:00	12:00		14:00
Volume	1	50	14	1	8	3		1	9		1	1		78
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Classes			Volume		%	Volume		%	Volume		%	Volume		%
			64	↔	9%	62	↔	8%	123	↔	17%	484	↔	66%

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

VOLUME
Bystrum Rd S/O Keyes Rd

Day: Tuesday
Date: 10/4/2016

County: Stanislaus
Project #: CA16_7709_004

DAILY TOTALS					NB	SB						EB	WB	Total	
					733	744						0	0	1,477	
AM Period	NB		SB		EB	WB	TOTAL	PM Period	NB		SB		EB	WB	TOTAL
0:00	19		0		0	0	19	12:00	9		8		0	0	17
0:15	3		1		0	0	4	12:15	9		8		0	0	17
0:30	3		0		0	0	3	12:30	9		8		0	0	17
0:45	0	25	0	1	0	0	26	12:45	6	33	10	34	0	0	67
1:00	3		0		0	0	3	13:00	6		11		0	0	17
1:15	0		0		0	0		13:15	8		14		0	0	22
1:30	2		1		0	0	3	13:30	8		20		0	0	28
1:45	0	5	3	4	0	0	9	13:45	7	29	19	64	0	0	93
2:00	4		1		0	0	5	14:00	12		9		0	0	21
2:15	2		3		0	0	5	14:15	12		15		0	0	27
2:30	1		2		0	0	3	14:30	41		18		0	0	59
2:45	1	8	5	11	0	0	19	14:45	13	78	24	66	0	0	144
3:00	1		2		0	0	3	15:00	19		10		0	0	29
3:15	3		3		0	0	6	15:15	14		11		0	0	25
3:30	3		3		0	0	6	15:30	22		6		0	0	28
3:45	1	8	6	14	0	0	22	15:45	11	66	8	35	0	0	101
4:00	1		2		0	0	3	16:00	28		4		0	0	32
4:15	3		5		0	0	8	16:15	12		7		0	0	19
4:30	2		6		0	0	8	16:30	11		3		0	0	14
4:45	2	8	11	24	0	0	32	16:45	10	61	1	15	0	0	76
5:00	3		3		0	0	6	17:00	27		2		0	0	29
5:15	2		11		0	0	13	17:15	15		8		0	0	23
5:30	3		18		0	0	21	17:30	13		20		0	0	33
5:45	1	9	45	77	0	0	86	17:45	7	62	12	42	0	0	104
6:00	4		9		0	0	13	18:00	9		3		0	0	12
6:15	7		8		0	0	15	18:15	8		2		0	0	10
6:30	32		16		0	0	48	18:30	32		3		0	0	35
6:45	12	55	23	56	0	0	111	18:45	4	53	2	10	0	0	63
7:00	3		14		0	0	17	19:00	8		4		0	0	12
7:15	15		21		0	0	36	19:15	4		3		0	0	7
7:30	8		16		0	0	24	19:30	5		5		0	0	10
7:45	10	36	23	74	0	0	110	19:45	4	21	1	13	0	0	34
8:00	12		20		0	0	32	20:00	4		3		0	0	7
8:15	3		18		0	0	21	20:15	2		1		0	0	3
8:30	11		10		0	0	21	20:30	4		3		0	0	7
8:45	2	28	11	59	0	0	87	20:45	1	11	1	8	0	0	19
9:00	5		3		0	0	8	21:00	1		2		0	0	3
9:15	5		7		0	0	12	21:15	0		1		0	0	1
9:30	5		6		0	0	11	21:30	1		6		0	0	7
9:45	3	18	10	26	0	0	44	21:45	2	4	11	20	0	0	24
10:00	9		7		0	0	16	22:00	1		3		0	0	4
10:15	4		6		0	0	10	22:15	2		2		0	0	4
10:30	8		2		0	0	10	22:30	10		11		0	0	21
10:45	5	26	14	29	0	0	55	22:45	6	19	5	21	0	0	40
11:00	10		3		0	0	13	23:00	3		4		0	0	7
11:15	4		5		0	0	9	23:15	5		10		0	0	15
11:30	11		9		0	0	20	23:30	28		2		0	0	30
11:45	5	30	4	21	0	0	51	23:45	4	40	4	20	0	0	60
TOTALS	256		396				652	TOTALS	477		348				825
SPLIT %	39.3%		60.7%				44.1%	SPLIT %	57.8%		42.2%				55.9%

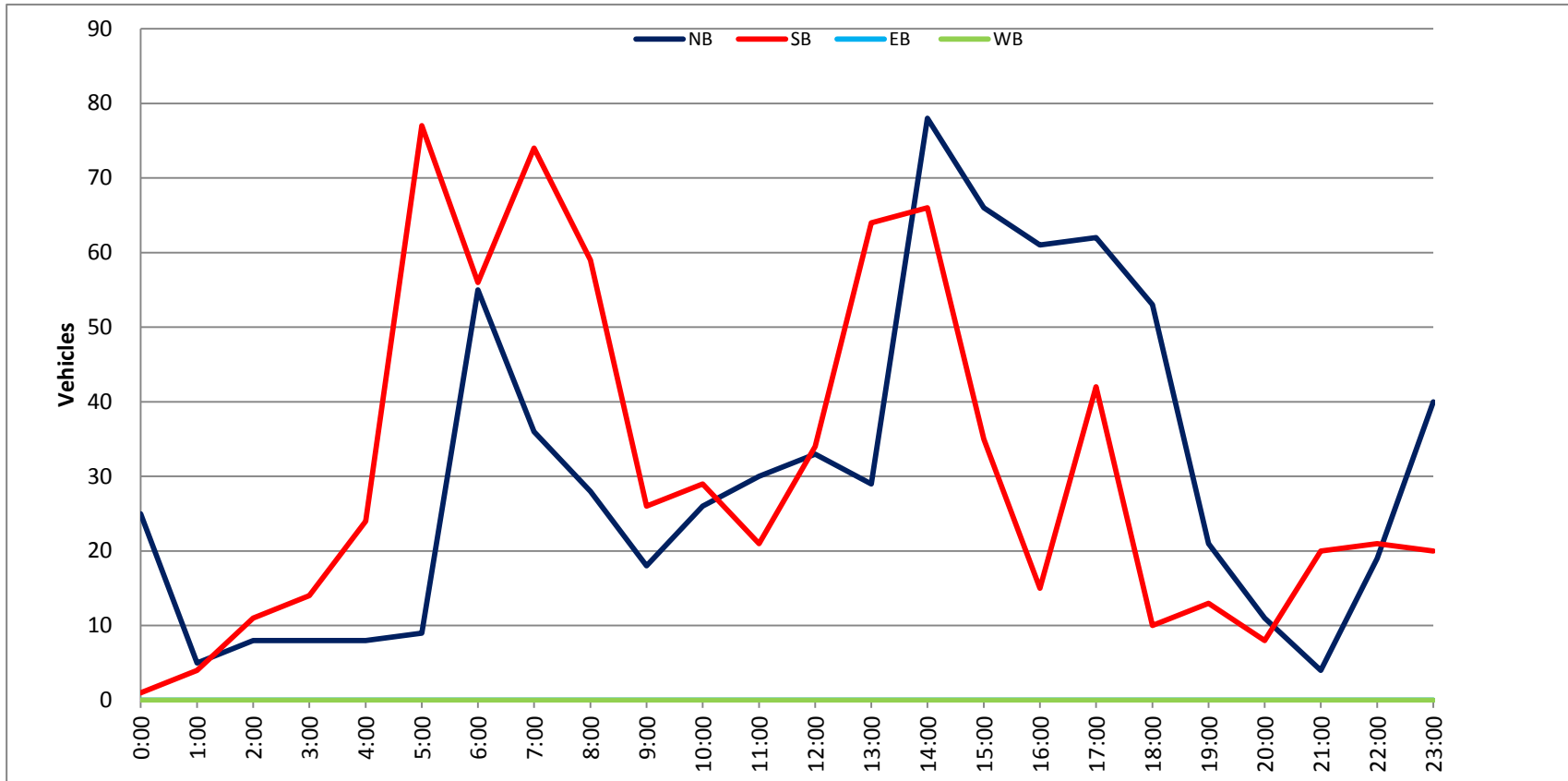
DAILY TOTALS					NB	SB						EB	WB	Total	
					733	744						0	0	1,477	
AM Peak Hour	6:30		5:15			6:30	PM Peak Hour	15:00		14:45				14:45	
AM Pk Volume	62		83			136	PM Pk Volume	87		67				152	
Pk Hr Factor	0.484		0.461			0.708	Pk Hr Factor	0.750		0.531				0.804	
7 - 9 Volume	64		133		0	0	197	4 - 6 Volume	123		57		0	0	180
7 - 9 Peak Hour	7:15		7:15			7:15	4 - 6 Peak Hour	16:45		17:00				17:00	
7 - 9 Pk Volume	45		80		0	0	125	4 - 6 Pk Volume	65		42		0	0	104
Pk Hr Factor	0.750		0.870		0.000	0.000	0.868	Pk Hr Factor	0.602		0.525		0.000	0.000	0.788

Project #: CA16_7709_004

County: Stanislaus

Location: Bystrum Rd S/O Keyes Rd

Date: 10/4/2016



CLASSIFICATION

East Entrance to Bronco Winery S/O Keyes Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_003

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	7
1:00	0	0	0	0	0	0	0	0	0	0	9	0	0	9
2:00	0	0	0	0	0	0	0	0	0	0	11	0	0	11
3:00	0	1	0	0	0	0	0	0	0	0	13	0	0	14
4:00	0	0	0	0	0	0	0	0	0	0	4	0	0	4
5:00	0	0	0	0	0	0	0	0	0	0	0	7	0	7
6:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:00	0	0	0	0	0	0	0	0	0	0	0	2	0	2
8:00	0	2	0	0	0	0	0	0	0	0	0	2	0	4
9:00	0	0	0	0	0	0	0	0	0	0	4	1	0	5
10:00	0	0	0	0	0	0	0	0	0	0	9	3	0	12
11:00	0	0	0	0	0	0	0	0	0	0	8	3	0	11
12:00 PM	0	2	0	0	0	0	0	0	0	0	1	1	0	4
13:00	0	1	0	0	0	0	0	0	0	0	0	13	0	14
14:00	0	3	0	0	0	0	0	0	0	0	0	12	0	15
15:00	0	0	0	0	0	0	0	0	0	0	1	2	0	3
16:00	0	0	0	0	0	0	0	0	0	0	3	0	0	3
17:00	0	1	0	0	0	0	0	0	0	0	7	0	0	8
18:00	0	0	0	0	0	0	0	0	0	0	6	2	0	8
19:00	0	1	0	0	0	0	0	0	0	0	4	0	0	5
20:00	0	4	0	0	0	0	0	0	0	0	5	0	0	9
21:00	0	1	0	0	0	0	0	0	0	0	10	0	0	11
22:00	0	0	0	0	0	0	0	0	0	0	10	1	0	11
23:00	0	0	0	0	0	0	0	0	0	0	7	0	0	7
Totals		16									120	49		185
% of Totals		9%									65%	26%		100%

AM Volumes	0	3	0	0	0	0	0	0	0	0	66	18	0	87
% AM		2%									36%	10%		47%
AM Peak Hour		8:00									3:00	5:00		3:00
Volume		2									13	7		14
PM Volumes	0	13	0	0	0	0	0	0	0	0	54	31	0	98
% PM		7%									29%	17%		53%
PM Peak Hour		20:00									21:00	13:00		14:00
Volume		4									10	13		15
Directional Peak Periods		AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes						
All Classes		Volume	%	Volume	%	Volume	%	Volume	%					
		6	↔ 3%	18	↔ 10%	11	↔ 6%	150	↔ 81%					

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

East Entrance to Bronco Winery S/O Keyes Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_003s

South Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	5	0	0	5
2:00	0	0	0	0	0	0	0	0	0	0	8	0	0	8
3:00	0	1	0	0	0	0	0	0	0	0	4	0	0	5
4:00	0	0	0	0	0	0	0	0	0	0	3	0	0	3
5:00	0	0	0	0	0	0	0	0	0	0	0	2	0	2
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	2	0	2
8:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
9:00	0	0	0	0	0	0	0	0	0	0	3	1	0	4
10:00	0	0	0	0	0	0	0	0	0	0	4	1	0	5
11:00	0	0	0	0	0	0	0	0	0	0	4	2	0	6
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	1	0	0	0	0	0	0	0	0	0	7	0	8
14:00	0	2	0	0	0	0	0	0	0	0	0	6	0	8
15:00	0	0	0	0	0	0	0	0	0	0	0	1	0	1
16:00	0	0	0	0	0	0	0	0	0	0	2	0	0	2
17:00	0	0	0	0	0	0	0	0	0	0	3	0	0	3
18:00	0	0	0	0	0	0	0	0	0	0	3	1	0	4
19:00	0	0	0	0	0	0	0	0	0	0	2	0	0	2
20:00	0	2	0	0	0	0	0	0	0	0	4	0	0	6
21:00	0	0	0	0	0	0	0	0	0	0	3	0	0	3
22:00	0	0	0	0	0	0	0	0	0	0	6	0	0	6
23:00	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Totals		8									61	23		92
% of Totals		9%									66%	25%		100%

AM Volumes	0	3	0	0	0	0	0	0	0	0	34	8	0	45
% AM		3%									37%	9%		49%
AM Peak Hour		8:00									2:00	5:00		2:00
Volume		2									8	2		8
PM Volumes	0	5	0	0	0	0	0	0	0	0	27	15	0	47
% PM		5%									29%	16%		51%
PM Peak Hour		14:00									22:00	13:00		13:00
Volume		2									6	7		8
Directional Peak Periods All Classes			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
			Volume		%	Volume		%	Volume		%	Volume		%
			4	↔	4%	8	↔	9%	5	↔	5%	75	↔	82%

Classification Definitions

1 Motorcycles
 2 Passenger Cars
 3 2-Axle, 4-Tire Single Units

4 Buses
 5 2-Axle, 6-Tire Single Units
 6 3-Axle Single Units

7 >=4-Axle Single Units
 8 <=4-Axle Single Trailers
 9 5-Axle Single Trailers

10 >=6-Axle Single Trailers
 11 <=5-Axle Multi-Trailers
 12 6-Axle Multi-Trailers

13 >=7-Axle Multi-Trailers

CLASSIFICATION

East Entrance to Bronco Winery S/O Keyes Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_003n

North Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	4
1:00	0	0	0	0	0	0	0	0	0	0	4	0	0	4
2:00	0	0	0	0	0	0	0	0	0	0	3	0	0	3
3:00	0	0	0	0	0	0	0	0	0	0	9	0	0	9
4:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00	0	0	0	0	0	0	0	0	0	0	0	5	0	5
6:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	2	0	2
9:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0	5	2	0	7
11:00	0	0	0	0	0	0	0	0	0	0	4	1	0	5
12:00 PM	0	2	0	0	0	0	0	0	0	0	1	1	0	4
13:00	0	0	0	0	0	0	0	0	0	0	0	6	0	6
14:00	0	1	0	0	0	0	0	0	0	0	0	6	0	7
15:00	0	0	0	0	0	0	0	0	0	0	1	1	0	2
16:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1
17:00	0	1	0	0	0	0	0	0	0	0	4	0	0	5
18:00	0	0	0	0	0	0	0	0	0	0	3	1	0	4
19:00	0	1	0	0	0	0	0	0	0	0	2	0	0	3
20:00	0	2	0	0	0	0	0	0	0	0	1	0	0	3
21:00	0	1	0	0	0	0	0	0	0	0	7	0	0	8
22:00	0	0	0	0	0	0	0	0	0	0	4	1	0	5
23:00	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Totals		8									59	26		93
% of Totals		9%									63%	28%		100%

AM Volumes	0	0	0	0	0	0	0	0	0	0	32	10	0	42
% AM											34%	11%		45%
AM Peak Hour											3:00	5:00		3:00
Volume											9	5		9
PM Volumes	0	8	0	0	0	0	0	0	0	0	27	16	0	51
% PM		9%									29%	17%		55%
PM Peak Hour		12:00									21:00	13:00		21:00
Volume		2									7	6		8
Directional Peak Periods All Classes			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
			Volume		%	Volume		%	Volume		%	Volume		%
			2	↔	2%	10	↔	11%	6	↔	6%	75	↔	81%

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

VOLUME

East Entrance to Bronco Winery S/O Keyes Rd

Day: Tuesday
Date: 10/4/2016

County: Stanislaus
Project #: CA16_7709_003

DAILY TOTALS						NB	SB					EB	WB	Total	
						93	92					0	0	185	
AM Period	NB	SB		EB	WB	TOTAL		PM Period	NB	SB		EB	WB	TOTAL	
0:00	0	2		0	0	2		12:00	3	0		0	0	3	
0:15	4	0		0	0	4		12:15	1	0		0	0	1	
0:30	0	0		0	0	0		12:30	0	0		0	0	0	
0:45	0	4	1	3	0	0	1	7	12:45	0	4	0	0	0	4
1:00	1	2		0	0	3		13:00	0	1		0	0	1	
1:15	3	2		0	0	5		13:15	0	3		0	0	3	
1:30	0	0		0	0	0		13:30	1	3		0	0	4	
1:45	0	4	1	5	0	0	1	9	13:45	5	6	1	8	0	14
2:00	0	2		0	0	2		14:00	1	3		0	0	4	
2:15	2	0		0	0	2		14:15	2	0		0	0	2	
2:30	0	1		0	0	1		14:30	0	3		0	0	3	
2:45	1	3	5	8	0	0	6	11	14:45	4	7	2	8	0	15
3:00	6	4		0	0	10		15:00	1	0		0	0	1	
3:15	0	0		0	0	0		15:15	0	1		0	0	1	
3:30	3	1		0	0	4		15:30	1	0		0	0	1	
3:45	0	9	0	5	0	0	14		15:45	0	2	0	1	0	3
4:00	0	0		0	0	0		16:00	0	0		0	0	0	
4:15	0	0		0	0	0		16:15	0	0		0	0	0	
4:30	0	2		0	0	2		16:30	0	1		0	0	1	
4:45	1	1	1	3	0	0	2	4	16:45	1	1	1	2	0	3
5:00	1	0		0	0	1		17:00	1	1		0	0	2	
5:15	1	1		0	0	2		17:15	2	1		0	0	3	
5:30	1	0		0	0	1		17:30	1	1		0	0	2	
5:45	2	5	1	2	0	0	3	7	17:45	1	5	0	3	0	8
6:00	0	0		0	0	0		18:00	0	1		0	0	1	
6:15	1	0		0	0	1		18:15	1	2		0	0	3	
6:30	0	0		0	0	0		18:30	2	1		0	0	3	
6:45	0	1	0	0	0	0	1		18:45	1	4	0	4	0	8
7:00	0	0		0	0	0		19:00	1	1		0	0	2	
7:15	0	1		0	0	1		19:15	1	1		0	0	2	
7:30	0	1		0	0	1		19:30	1	0		0	0	1	
7:45	0	0		2	0	0	2		19:45	0	3	0	2	0	5
8:00	2	1		0	0	3		20:00	0	0		0	0	0	
8:15	0	1		0	0	1		20:15	0	0		0	0	0	
8:30	0	0		0	0	0		20:30	2	2		0	0	4	
8:45	0	2	0	2	0	0	4		20:45	1	3	4	6	0	9
9:00	0	0		0	0	0		21:00	4	1		0	0	5	
9:15	0	0		0	0	0		21:15	1	0		0	0	1	
9:30	0	1		0	0	1		21:30	0	2		0	0	2	
9:45	1	1	3	4	0	0	4	5	21:45	3	8	0	3	0	11
10:00	0	2		0	0	2		22:00	0	2		0	0	2	
10:15	2	1		0	0	3		22:15	1	2		0	0	3	
10:30	2	1		0	0	3		22:30	3	1		0	0	4	
10:45	3	7	1	5	0	0	4	12	22:45	1	5	1	6	0	11
11:00	1	3		0	0	4		23:00	0	0		0	0	0	
11:15	1	0		0	0	1		23:15	0	1		0	0	1	
11:30	2	1		0	0	3		23:30	1	0		0	0	1	
11:45	1	5	2	6	0	0	3	11	23:45	2	3	3	4	0	7
TOTALS	42		45		87		TOTALS	51		47		98		98	
SPLIT %	48.3%		51.7%		47.0%		SPLIT %	52.0%		48.0%		53.0%		53.0%	

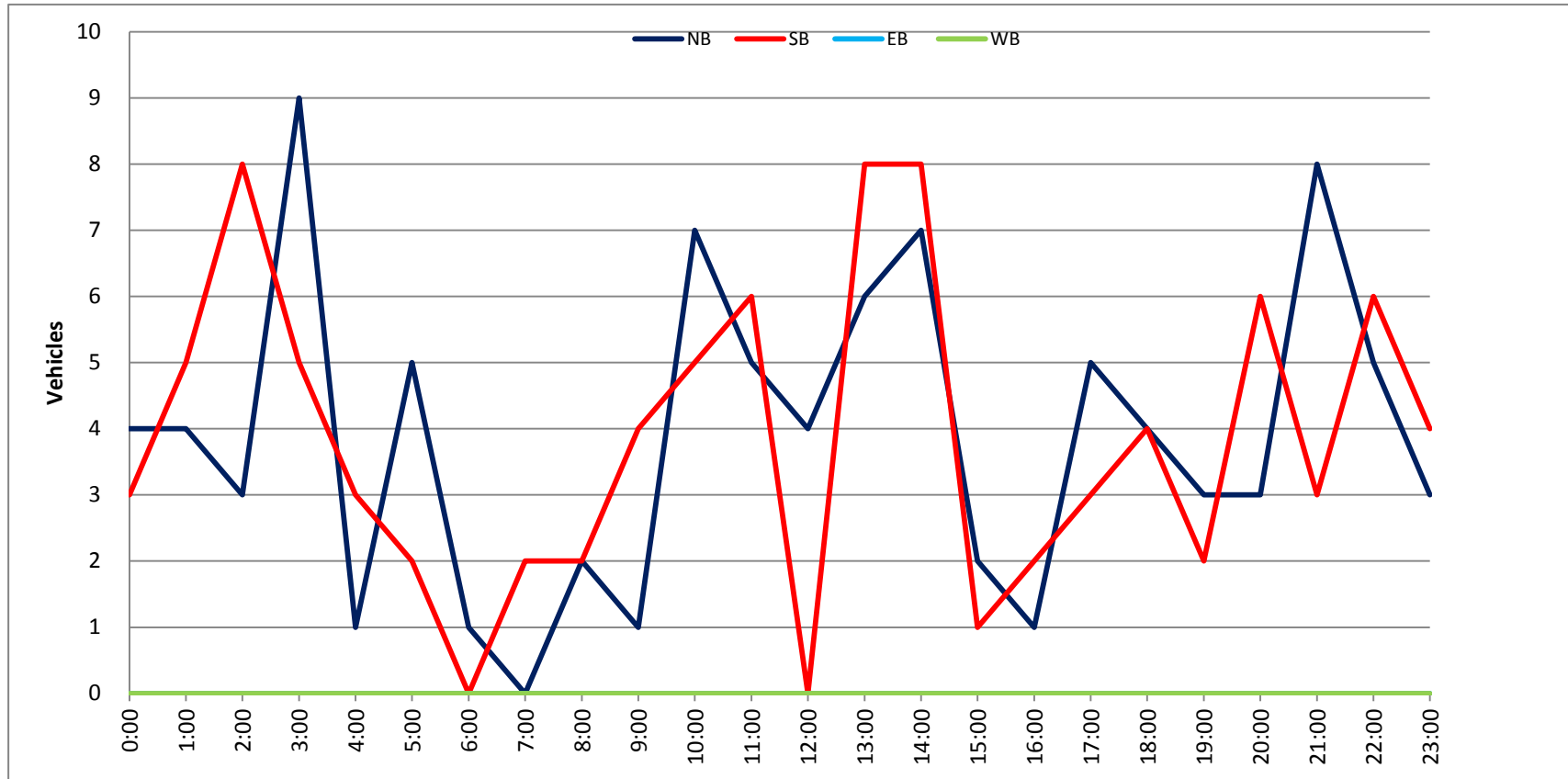
DAILY TOTALS						NB	SB					EB	WB	Total	
						93	92					0	0	185	
AM Peak Hour	2:45		2:15		2:45		PM Peak Hour	14:00		13:45		13:45			
AM Pk Volume	10		10		20		PM Pk Volume	9		10		17			
Pk Hr Factor	0.417		0.500		0.500		Pk Hr Factor	0.438		0.583		0.625			
7 - 9 Volume	2		4		6		4 - 6 Volume	6		5		11			
7 - 9 Peak Hour	7:15		7:15		7:15		4 - 6 Peak Hour	16:45		16:30		16:45			
7 - 9 Pk Volume	2		3		5		4 - 6 Pk Volume	5		4		9			
Pk Hr Factor	0.250		0.750		0.417		Pk Hr Factor	0.625		1.000		0.750			

Project #: CA16_7709_003

County: Stanislaus

Location: East Entrance to Bronco Winery S/O Keys

Date: 10/4/2016



CLASSIFICATION

Keyes Rd W/O Bystrum Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_001

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	26	2	0	5	0	0	2	5	0	5	1	0	46
1:00	0	12	2	0	5	0	0	4	4	0	5	3	0	35
2:00	0	20	4	1	2	0	0	3	3	0	4	2	0	39
3:00	1	37	15	4	11	1	0	6	2	0	1	4	0	82
4:00	0	88	31	4	38	2	0	4	10	0	4	1	0	182
5:00	1	187	53	1	65	2	0	5	20	0	1	2	0	337
6:00	2	191	52	1	60	1	0	11	21	0	3	3	0	345
7:00	1	265	62	4	64	5	0	9	25	0	4	3	0	442
8:00	2	204	43	5	69	4	0	7	21	0	7	2	0	364
9:00	2	101	48	2	46	3	0	7	24	0	10	1	0	244
10:00	2	100	37	1	43	3	0	12	17	0	6	3	0	224
11:00	3	104	41	0	63	4	0	8	16	0	7	1	0	247
12:00 PM	0	127	40	2	57	1	0	9	27	0	5	1	0	269
13:00	1	156	51	1	51	4	0	13	23	0	10	5	0	315
14:00	5	206	60	4	49	7	0	6	28	0	14	1	0	380
15:00	2	257	94	6	64	3	0	9	19	0	8	0	0	462
16:00	1	358	85	4	65	3	1	10	20	1	8	0	0	556
17:00	1	402	96	5	68	6	2	7	10	0	7	0	0	604
18:00	2	230	59	0	33	1	1	4	17	0	10	1	0	358
19:00	1	116	40	0	29	0	0	2	13	0	6	0	0	207
20:00	1	83	18	0	16	1	0	1	4	0	2	1	0	127
21:00	0	72	16	1	11	0	0	0	1	0	8	1	0	110
22:00	1	62	9	0	5	0	0	1	5	0	6	1	0	90
23:00	0	46	6	0	1	0	0	0	3	0	7	1	0	64
Totals	29	3450	964	46	920	51	4	140	338	1	148	38		6129
% of Totals	0%	56%	16%	1%	15%	1%	0%	2%	6%	0%	2%	1%		100%

AM Volumes	14	1335	390	23	471	25	0	78	168	0	57	26	0	2587
% AM	0%	22%	6%	0%	8%	0%		1%	3%		1%	0%		42%
AM Peak Hour	11:00	7:00	7:00	8:00	8:00	7:00		10:00	7:00		9:00	3:00		7:00
Volume	3	265	62	5	69	5		12	25		10	4		442
PM Volumes	15	2115	574	23	449	26	4	62	170	1	91	12	0	3542
% PM	0%	35%	9%	0%	7%	0%	0%	1%	3%	0%	1%	0%		58%
PM Peak Hour	14:00	17:00	17:00	15:00	17:00	14:00	17:00	13:00	14:00	16:00	14:00	13:00		17:00
Volume	5	402	96	6	68	7	2	13	28	1	14	5		604
Directional Peak Periods		AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes						
All Classes		Volume	%	Volume	%	Volume	%	Volume	%					
		806	↔ 13%	584	↔ 10%	1160	↔ 19%	3579	↔ 58%					

Classification Definitions

1 Motorcycles
 2 Passenger Cars
 3 2-Axle, 4-Tire Single Units

4 Buses
 5 2-Axle, 6-Tire Single Units
 6 3-Axle Single Units

7 >=4-Axle Single Units
 8 <=4-Axle Single Trailers
 9 5-Axle Single Trailers

10 >=6-Axle Single Trailers
 11 <=5-Axle Multi-Trailers
 12 6-Axle Multi-Trailers

13 >=7-Axle Multi-Trailers

CLASSIFICATION

Keyes Rd W/O Bystrum Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_001w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	20	1	0	5	0	0	2	2	0	2	0	0	32
1:00	0	4	1	0	5	0	0	4	3	0	1	1	0	19
2:00	0	12	1	1	2	0	0	2	0	0	0	0	0	18
3:00	0	29	12	4	10	1	0	6	2	0	0	1	0	65
4:00	0	65	24	4	34	2	0	3	4	0	0	0	0	136
5:00	1	119	35	1	58	2	0	5	9	0	1	1	0	232
6:00	0	118	40	0	51	0	0	10	10	0	2	1	0	232
7:00	0	154	37	3	50	3	0	8	11	0	3	1	0	270
8:00	0	121	23	3	59	2	0	7	6	0	3	2	0	226
9:00	0	45	26	1	35	0	0	4	9	0	2	0	0	122
10:00	2	56	13	1	30	1	0	12	11	0	3	2	0	131
11:00	1	47	19	0	42	2	0	7	5	0	3	0	0	126
12:00 PM	0	59	20	0	42	0	0	5	8	0	1	1	0	136
13:00	0	58	19	1	34	1	0	8	7	0	4	0	0	132
14:00	1	66	22	2	24	3	0	3	14	0	6	1	0	142
15:00	1	74	29	2	34	1	0	7	3	0	2	0	0	153
16:00	1	102	22	3	37	3	0	5	7	0	2	0	0	182
17:00	0	92	31	2	35	4	1	2	3	0	2	0	0	172
18:00	2	80	23	0	15	0	0	3	6	0	4	0	0	133
19:00	0	51	15	0	21	0	0	2	4	0	4	0	0	97
20:00	0	41	9	0	13	1	0	1	4	0	0	0	0	69
21:00	0	25	8	1	7	0	0	0	0	0	6	0	0	47
22:00	1	24	4	0	5	0	0	1	2	0	2	0	0	39
23:00	0	27	2	0	1	0	0	0	2	0	3	0	0	35
Totals	10	1489	436	29	649	26	1	107	132		56	11		2946
% of Totals	0%	51%	15%	1%	22%	1%	0%	4%	4%		2%	0%		100%

AM Volumes	4	790	232	18	381	13	0	70	72	0	20	9	0	1609
% AM	0%	27%	8%	1%	13%	0%		2%	2%		1%	0%		55%
AM Peak Hour	10:00	7:00	6:00	3:00	8:00	7:00		10:00	7:00		7:00	8:00		7:00
Volume	2	154	40	4	59	3		12	11		3	2		270
PM Volumes	6	699	204	11	268	13	1	37	60	0	36	2	0	1337
% PM	0%	24%	7%	0%	9%	0%	0%	1%	2%		1%	0%		45%
PM Peak Hour	18:00	16:00	17:00	16:00	12:00	17:00	17:00	13:00	14:00		14:00	12:00		16:00
Volume	2	102	31	3	42	4	1	8	14		6	1		182
Directional Peak Periods All Classes			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
			Volume		%	Volume		%	Volume		%	Volume		%
			496	↔	17%	268	↔	9%	354	↔	12%	1828	↔	62%

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Keyes Rd W/O Bystrum Rd

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_001e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	6	1	0	0	0	0	0	3	0	3	1	0	14
1:00	0	8	1	0	0	0	0	0	1	0	4	2	0	16
2:00	0	8	3	0	0	0	0	1	3	0	4	2	0	21
3:00	1	8	3	0	1	0	0	0	0	0	1	3	0	17
4:00	0	23	7	0	4	0	0	1	6	0	4	1	0	46
5:00	0	68	18	0	7	0	0	0	11	0	0	1	0	105
6:00	2	73	12	1	9	1	0	1	11	0	1	2	0	113
7:00	1	111	25	1	14	2	0	1	14	0	1	2	0	172
8:00	2	83	20	2	10	2	0	0	15	0	4	0	0	138
9:00	2	56	22	1	11	3	0	3	15	0	8	1	0	122
10:00	0	44	24	0	13	2	0	0	6	0	3	1	0	93
11:00	2	57	22	0	21	2	0	1	11	0	4	1	0	121
12:00 PM	0	68	20	2	15	1	0	4	19	0	4	0	0	133
13:00	1	98	32	0	17	3	0	5	16	0	6	5	0	183
14:00	4	140	38	2	25	4	0	3	14	0	8	0	0	238
15:00	1	183	65	4	30	2	0	2	16	0	6	0	0	309
16:00	0	256	63	1	28	0	1	5	13	1	6	0	0	374
17:00	1	310	65	3	33	2	1	5	7	0	5	0	0	432
18:00	0	150	36	0	18	1	1	1	11	0	6	1	0	225
19:00	1	65	25	0	8	0	0	0	9	0	2	0	0	110
20:00	1	42	9	0	3	0	0	0	0	0	2	1	0	58
21:00	0	47	8	0	4	0	0	0	1	0	2	1	0	63
22:00	0	38	5	0	0	0	0	0	3	0	4	1	0	51
23:00	0	19	4	0	0	0	0	0	1	0	4	1	0	29
Totals	19	1961	528	17	271	25	3	33	206	1	92	27		3183
% of Totals	1%	62%	17%	1%	9%	1%	0%	1%	6%	0%	3%	1%		100%

AM Volumes	10	545	158	5	90	12	0	8	96	0	37	17	0	978
% AM	0%	17%	5%	0%	3%	0%		0%	3%		1%	1%		31%
AM Peak Hour	6:00	7:00	7:00	8:00	11:00	9:00		9:00	8:00		9:00	3:00		7:00
Volume	2	111	25	2	21	3		3	15		8	3		172
PM Volumes	9	1416	370	12	181	13	3	25	110	1	55	10	0	2205
% PM	0%	44%	12%	0%	6%	0%	0%	1%	3%	0%	2%	0%		69%
PM Peak Hour	14:00	17:00	15:00	15:00	17:00	14:00	16:00	13:00	12:00	16:00	14:00	13:00		17:00
Volume	4	310	65	4	33	4	1	5	19	1	8	5		432
Directional Peak Periods		AM 7-9				NOON 12-2				PM 4-6				Off Peak Volumes
All Classes		Volume		%		Volume		%		Volume		%		Volume
		310		10%		316		10%		806		25%		1751
		↔				↔				↔				↔

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

Keyes Rd W/O Bystrum Rd

County: Stanislaus
Project #: CA16_7709_001

DAILY TOTALS			NB	SB	EB			WB		Total				
			0	0						6,129				
AM Peak Hour			7:00	7:15	7:15	PM Peak Hour			17:30	16:45	17:00			
AM Pk Volume			172	318	488	PM Pk Volume			347	187	609			
Pk Hr Factor			0.915	0.946	0.946	Pk Hr Factor			0.796	0.877	0.944			
7 - 9 Volume	0	0	310	496	806	4 - 6 Volume		0	0	806	354	1160		
7 - 9 Peak Hour			7:00	7:15	7:15	4 - 6 Peak Hour			17:00	16:15	16:30			
7 - 9 Pk Volume			0	0	172	318	488	4 - 6 Pk Volume		0	0	432	187	609
Pk Hr Factor			0.000	0.000	0.915	0.946	0.946	Pk Hr Factor		0.000	0.000	0.915	0.882	0.952

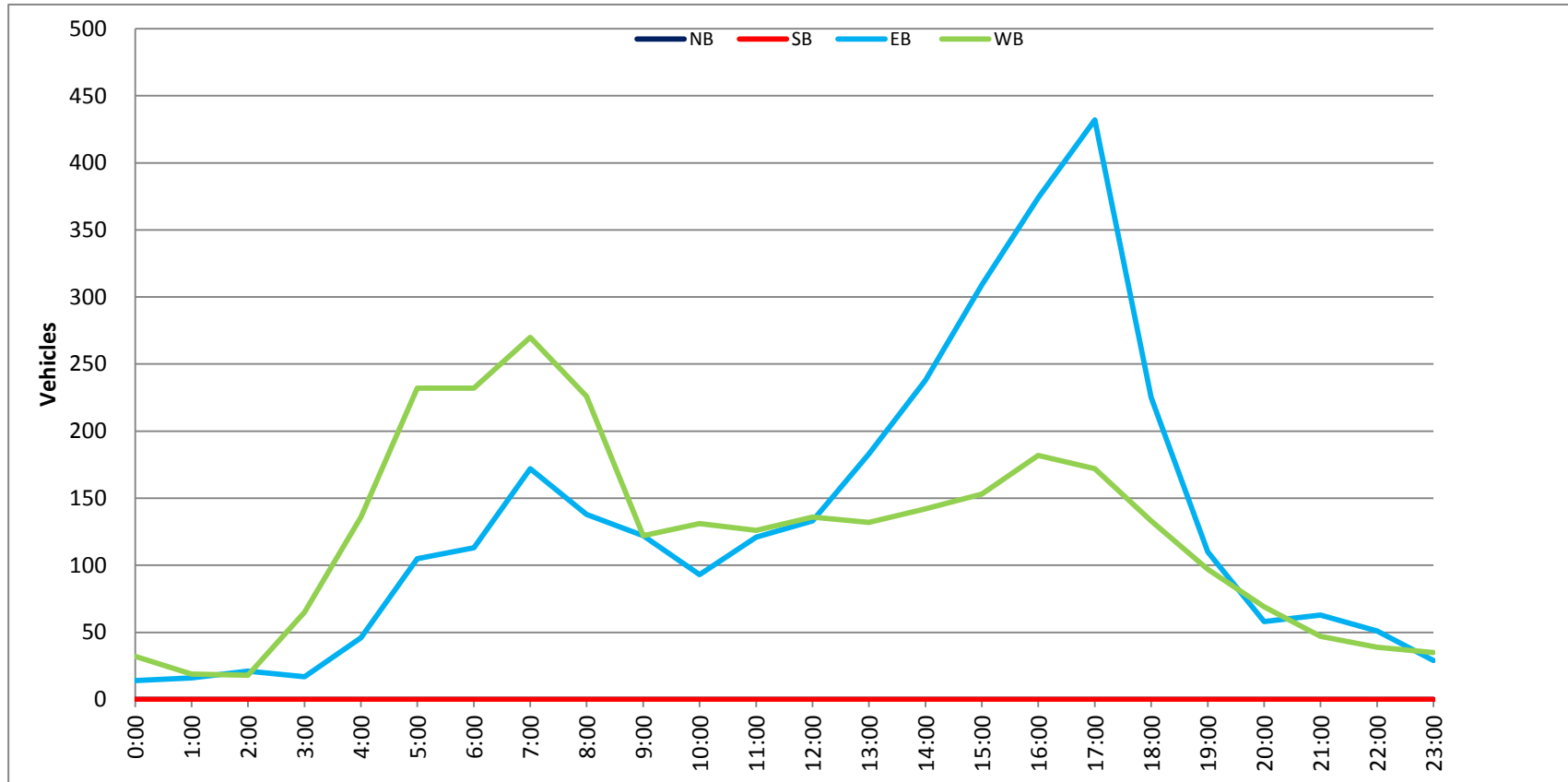
Prepared by NDS/ATD

Project #: CA16_7709_001

County: Stanislaus

Location: Keyes Rd W/O Bystrum Rd

Date: 10/4/2016



CLASSIFICATION

Keyes Rd E/O Entrance to Bronco Winery

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_002

Summary

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	24	6	0	4	0	0	1	6	0	10	1	0	52
1:00	0	18	1	0	3	1	0	3	2	0	2	4	0	34
2:00	1	24	5	0	3	0	0	2	3	0	10	3	0	51
3:00	0	56	13	0	6	1	0	4	2	0	7	5	0	94
4:00	1	131	25	0	11	1	0	6	11	0	2	1	0	189
5:00	9	230	56	0	24	2	0	6	14	0	3	2	2	348
6:00	1	237	65	1	23	1	0	11	19	0	3	2	0	363
7:00	2	343	78	1	31	7	0	6	21	1	6	2	0	498
8:00	1	267	80	2	15	3	0	10	19	0	5	1	1	404
9:00	1	143	59	1	15	3	0	14	20	0	11	1	0	268
10:00	3	131	41	0	28	3	0	8	15	0	13	3	0	245
11:00	3	127	48	0	33	3	0	9	16	0	11	1	0	251
12:00 PM	0	159	49	2	26	2	0	11	22	0	10	0	0	281
13:00	3	198	59	0	23	6	0	9	22	1	11	7	0	339
14:00	6	269	70	2	26	4	0	8	21	0	14	1	0	421
15:00	3	316	103	5	55	4	0	8	22	0	4	0	0	520
16:00	1	438	105	1	49	1	1	9	20	0	6	0	0	631
17:00	0	475	97	3	59	2	2	11	10	0	5	0	0	664
18:00	1	269	53	0	22	2	1	5	13	0	2	2	0	370
19:00	3	131	38	1	19	0	0	3	12	0	5	0	0	212
20:00	0	102	19	0	7	1	0	1	0	0	9	1	0	140
21:00	0	81	14	0	7	0	0	0	2	0	6	3	0	113
22:00	0	65	7	0	2	0	0	1	4	0	2	1	0	82
23:00	0	69	8	0	0	0	0	0	3	0	3	3	0	86
Totals	39	4303	1099	19	491	47	4	146	299	2	160	44	3	6656
% of Totals	1%	65%	17%	0%	7%	1%	0%	2%	4%	0%	2%	1%	0%	100%

AM Volumes	22	1731	477	5	196	25	0	80	148	1	83	26	3	2797
% AM	0%	26%	7%	0%	3%	0%		1%	2%	0%	1%	0%	0%	42%
AM Peak Hour	5:00	7:00	8:00	8:00	11:00	7:00		9:00	7:00	7:00	10:00	3:00	5:00	7:00
Volume	9	343	80	2	33	7		14	21	1	13	5	2	498
PM Volumes	17	2572	622	14	295	22	4	66	151	1	77	18	0	3859
% PM	0%	39%	9%	0%	4%	0%	0%	1%	2%	0%	1%	0%		58%
PM Peak Hour	14:00	17:00	16:00	15:00	17:00	13:00	17:00	12:00	12:00	13:00	14:00	13:00		17:00
Volume	6	475	105	5	59	6	2	11	22	1	14	7		664
Directional Peak Periods		AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes						
All Classes		Volume	%	Volume	%	Volume	%	Volume	%					
		902	14%	620	9%	1295	19%	3839	58%					

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Keyes Rd E/O Entrance to Bronco Winery

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_002e

East Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	15	3	0	4	0	0	0	4	0	6	1	0	33
1:00	0	12	1	0	2	0	0	0	1	0	0	2	0	18
2:00	0	10	4	0	3	0	0	1	3	0	9	2	0	32
3:00	0	9	3	0	5	0	0	0	0	0	6	3	0	26
4:00	0	23	9	0	2	0	0	1	6	0	0	1	0	42
5:00	0	50	13	0	12	0	0	0	10	0	2	1	0	88
6:00	0	78	12	1	9	1	0	1	12	0	0	2	0	116
7:00	0	103	22	1	13	3	0	1	14	0	1	2	0	160
8:00	1	96	22	2	4	2	0	0	15	0	0	0	0	142
9:00	1	65	24	1	6	3	0	3	15	0	9	1	0	128
10:00	0	59	27	0	9	2	0	0	8	0	5	1	0	111
11:00	2	63	23	0	20	2	0	1	11	0	6	1	0	129
12:00 PM	0	78	23	2	14	2	0	4	20	0	5	0	0	148
13:00	1	103	33	0	12	6	0	5	17	0	4	5	0	186
14:00	2	163	43	2	16	3	0	3	16	0	6	0	0	254
15:00	1	219	74	4	39	3	0	2	21	0	1	0	0	364
16:00	0	314	77	1	32	0	1	5	19	0	1	0	0	450
17:00	0	348	71	3	45	2	2	5	10	0	3	0	0	489
18:00	0	190	42	0	17	1	1	1	13	0	1	1	0	267
19:00	0	72	27	0	10	0	0	0	10	0	1	0	0	120
20:00	0	47	10	0	5	0	0	0	0	0	9	1	0	72
21:00	0	44	8	0	5	0	0	0	1	0	1	1	0	60
22:00	0	39	5	0	0	0	0	0	3	0	0	1	0	48
23:00	0	38	8	0	0	0	0	0	2	0	2	1	0	51
Totals	8	2238	584	17	284	30	4	33	231		78	27		3534
% of Totals	0%	63%	17%	0%	8%	1%	0%	1%	7%		2%	1%		100%

AM Volumes	4	583	163	5	89	13	0	8	99	0	44	17	0	1025
% AM	0%	16%	5%	0%	3%	0%		0%	3%		1%	0%		29%
AM Peak Hour	11:00	7:00	10:00	8:00	11:00	7:00		9:00	8:00		2:00	3:00		7:00
Volume	2	103	27	2	20	3		3	15		9	3		160
PM Volumes	4	1655	421	12	195	17	4	25	132	0	34	10	0	2509
% PM	0%	47%	12%	0%	6%	0%	0%	1%	4%		1%	0%		71%
PM Peak Hour	14:00	17:00	16:00	15:00	17:00	13:00	17:00	13:00	15:00		20:00	13:00		17:00
Volume	2	348	77	4	45	6	2	5	21		9	5		489
Directional Peak Periods All Classes		AM 7-9				NOON 12-2				PM 4-6				Off Peak Volumes
		Volume				Volume				Volume				Volume
		302				334				939				1959
		↔				↔				↔				↔
		9%				9%				27%				55%

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

CLASSIFICATION

Keyes Rd E/O Entrance to Bronco Winery

Day: Tuesday

Date: 10/4/2016

County: Stanislaus

Project #: CA16_7709_002w

West Bound

Time	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10	# 11	# 12	# 13	Total
0:00 AM	0	9	3	0	0	0	0	1	2	0	4	0	0	19
1:00	0	6	0	0	1	1	0	3	1	0	2	2	0	16
2:00	1	14	1	0	0	0	0	1	0	0	1	1	0	19
3:00	0	47	10	0	1	1	0	4	2	0	1	2	0	68
4:00	1	108	16	0	9	1	0	5	5	0	2	0	0	147
5:00	9	180	43	0	12	2	0	6	4	0	1	1	2	260
6:00	1	159	53	0	14	0	0	10	7	0	3	0	0	247
7:00	2	240	56	0	18	4	0	5	7	1	5	0	0	338
8:00	0	171	58	0	11	1	0	10	4	0	5	1	1	262
9:00	0	78	35	0	9	0	0	11	5	0	2	0	0	140
10:00	3	72	14	0	19	1	0	8	7	0	8	2	0	134
11:00	1	64	25	0	13	1	0	8	5	0	5	0	0	122
12:00 PM	0	81	26	0	12	0	0	7	2	0	5	0	0	133
13:00	2	95	26	0	11	0	0	4	5	1	7	2	0	153
14:00	4	106	27	0	10	1	0	5	5	0	8	1	0	167
15:00	2	97	29	1	16	1	0	6	1	0	3	0	0	156
16:00	1	124	28	0	17	1	0	4	1	0	5	0	0	181
17:00	0	127	26	0	14	0	0	6	0	0	2	0	0	175
18:00	1	79	11	0	5	1	0	4	0	0	1	1	0	103
19:00	3	59	11	1	9	0	0	3	2	0	4	0	0	92
20:00	0	55	9	0	2	1	0	1	0	0	0	0	0	68
21:00	0	37	6	0	2	0	0	0	1	0	5	2	0	53
22:00	0	26	2	0	2	0	0	1	1	0	2	0	0	34
23:00	0	31	0	0	0	0	0	0	1	0	1	2	0	35
Totals	31	2065	515	2	207	17		113	68	2	82	17	3	3122
% of Totals	1%	66%	16%	0%	7%	1%		4%	2%	0%	3%	1%	0%	100%

AM Volumes	18	1148	314	0	107	12	0	72	49	1	39	9	3	1772
% AM	1%	37%	10%		3%	0%		2%	2%	0%	1%	0%	0%	57%
AM Peak Hour	5:00	7:00	8:00		10:00	7:00		9:00	6:00	7:00	10:00	1:00	5:00	7:00
Volume	9	240	58		19	4		11	7	1	8	2	2	338
PM Volumes	13	917	201	2	100	5	0	41	19	1	43	8	0	1350
% PM	0%	29%	6%	0%	3%	0%		1%	1%	0%	1%	0%		43%
PM Peak Hour	14:00	17:00	15:00	15:00	16:00	14:00		12:00	13:00	13:00	14:00	13:00		16:00
Volume	4	127	29	1	17	1		7	5	1	8	2		181
Directional Peak Periods		AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes						
All Classes		Volume	%	Volume	%	Volume	%	Volume	%					
		600	19%	286	9%	356	11%	1880	60%					
		↔		↔		↔		↔						

Classification Definitions

1 Motorcycles	4 Buses	7 >=4-Axle Single Units	10 >=6-Axle Single Trailers	13 >=7-Axle Multi-Trailers
2 Passenger Cars	5 2-Axle, 6-Tire Single Units	8 <=4-Axle Single Trailers	11 <=5-Axle Multi-Trailers	
3 2-Axle, 4-Tire Single Units	6 3-Axle Single Units	9 5-Axle Single Trailers	12 6-Axle Multi-Trailers	

VOLUME

Keyes Rd E/O Entrance to Bronco Winery

Day: Tuesday
Date: 10/4/2016

County: Stanislaus
Project #: CA16_7709_002

DAILY TOTALS						NB	SB	EBWB						Total	
						0	0							3,534	3,122
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
0:00	0	0	16	3	19		12:00	0	0	37	28	65			
0:15	0	0	4	9	13		12:15	0	0	44	33	77			
0:30	0	0	4	4	8		12:30	0	0	33	40	73			
0:45	0	0	9	33	3	19	12:45	0	0	34	148	32	133	66	281
1:00	0	0	8	2	10		13:00	0	0	38	31	69			
1:15	0	0	4	5	9		13:15	0	0	52	26	78			
1:30	0	0	3	5	8		13:30	0	0	49	53	102			
1:45	0	0	3	18	4	16	13:45	0	0	47	186	43	153	90	339
2:00	0	0	7	3	10		14:00	0	0	72	42	114			
2:15	0	0	4	6	10		14:15	0	0	58	39	97			
2:30	0	0	3	3	6		14:30	0	0	53	41	94			
2:45	0	0	18	32	7	19	14:45	0	0	71	254	45	167	116	421
3:00	0	0	9	12	21		15:00	0	0	78	45	123			
3:15	0	0	6	10	16		15:15	0	0	84	32	116			
3:30	0	0	5	19	24		15:30	0	0	96	51	147			
3:45	0	0	6	26	27	68	15:45	0	0	106	364	28	156	134	520
4:00	0	0	4	21	25		16:00	0	0	110	51	161			
4:15	0	0	8	28	36		16:15	0	0	98	49	147			
4:30	0	0	11	43	54		16:30	0	0	116	36	152			
4:45	0	0	19	42	55	147	16:45	0	0	126	450	45	181	171	631
5:00	0	0	26	39	65		17:00	0	0	127	48	175			
5:15	0	0	17	76	93		17:15	0	0	135	41	176			
5:30	0	0	26	72	98		17:30	0	0	115	41	156			
5:45	0	0	19	88	73	260	17:45	0	0	112	489	45	175	157	664
6:00	0	0	15	53	68		18:00	0	0	89	27	116			
6:15	0	0	31	43	74		18:15	0	0	81	26	107			
6:30	0	0	44	73	117		18:30	0	0	63	28	91			
6:45	0	0	26	116	78	247	18:45	0	0	34	267	22	103	56	370
7:00	0	0	30	54	84		19:00	0	0	39	25	64			
7:15	0	0	39	70	109		19:15	0	0	38	27	65			
7:30	0	0	53	104	157		19:30	0	0	22	18	40			
7:45	0	0	38	160	110	338	19:45	0	0	21	120	22	92	43	212
8:00	0	0	37	97	134		20:00	0	0	13	17	30			
8:15	0	0	28	73	101		20:15	0	0	17	15	32			
8:30	0	0	42	52	94		20:30	0	0	18	16	34			
8:45	0	0	35	142	40	262	20:45	0	0	24	72	20	68	44	140
9:00	0	0	38	43	81		21:00	0	0	19	16	35			
9:15	0	0	25	22	47		21:15	0	0	16	11	27			
9:30	0	0	30	39	69		21:30	0	0	12	11	23			
9:45	0	0	35	128	36	140	21:45	0	0	13	60	15	53	28	113
10:00	0	0	27	27	54		22:00	0	0	12	7	19			
10:15	0	0	27	39	66		22:15	0	0	9	4	13			
10:30	0	0	35	29	64		22:30	0	0	16	14	30			
10:45	0	0	22	111	39	134	22:45	0	0	11	48	9	34	20	82
11:00	0	0	37	33	70		23:00	0	0	9	10	19			
11:15	0	0	22	34	56		23:15	0	0	10	14	24			
11:30	0	0	47	20	67		23:30	0	0	20	7	27			
11:45	0	0	23	129	35	122	23:45	0	0	12	51	4	35	16	86
TOTALS	1025				1772	2797	TOTALS	2509				1350	3859		
SPLIT %	36.6%				63.4%	42.0%	SPLIT %	65.0%				35.0%	58.0%		

DAILY TOTALS					NB	SB	EB					WB	Total	
					0	0	3,534					3,122	6,656	
AM Peak Hour			7:15	7:30	7:15		PM Peak Hour			17:00	16:30	17:15		
AM Pk Volume			167	384	548		PM Pk Volume			489	181	678		
Pk Hr Factor			0.788	0.873	0.873		Pk Hr Factor			0.906	0.885	0.859		
7 - 9 Volume	0	0	302	600	902		4 - 6 Volume	0	0	939	356	1295		
7 - 9 Peak Hour			7:15	7:30	7:15		4 - 6 Peak Hour			16:30	16:00	16:45		
7 - 9 Pk Volume	0	0	167	384	548		4 - 6 Pk Volume	0	0	504	181	678		
Pk Hr Factor	0.000	0.000	0.788	0.873	0.873		Pk Hr Factor	0.000	0.000	0.933	0.887	0.963		

Prepared by NDS/ATD

Project #: CA16_7709_002

County: Stanislaus

Location: Keyes Rd E/O Entrance to Bronco Winery

Date: 10/4/2016

